KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
Form N-CSR
January 29, 2014
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED

MANAGEMENT INVESTMENT COMPANIES

INVESTMENT COMPANY ACT FILE NUMBER 811-22467

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

(Exact name of registrant as specified in charter)

811 Main Street, 14th Floor, Houston, Texas	77002
(Address of principal executive offices)	(Zip code)

David Shladovsky, Esq.

KA Fund Advisors, LLC, 811 Main Street, 14th Floor, Houston, Texas 77002

(Name and address of agent for service)

Registrant s telephone number, including area code: (713) 493-2020

Date of fiscal year end: November 30, 2013

Date of reporting period: November 30, 2013

Form N-CSR is to be used by management investment companies to file reports with the Commission not later than 10 days after the transmission to stockholders of any report that is required to be transmitted to stockholders under Rule 30e-1 under the Investment Company Act of 1940 (17 CFR 270.30e-1). The Commission may use the information provided on Form N-CSR in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-CSR, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-CSR unless the Form displays a currently valid Office of Management and Budget (OMB) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

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Item 1. Reports to Stockholders.

The report of Kayne Anderson Midstream/Energy Fund, Inc. (the Registrant) to stockholders for the fiscal year ended November 30, 2013 is attached below.

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Midstream/Energy Fund

KMF Annual Report

November 30, 2013

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This report of Kayne Anderson Midstream/Energy Fund, Inc. (the Fund) contains forward-looking statements as defined under the U.S. federal securities laws. Generally, the words believe, expect, intend, estimate, anticipate, project, will and similar expressions identify forward-looking statements, which generally are not hist in nature. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to materially differ from the Fund s historical experience and its present expectations or projections indicated in any forward-looking statement. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; MLP industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in the Fund s filings with the Securities and Exchange Commission (SEC). You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. The Fund undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Fund s investment objectives will be attained.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

LETTER TO STOCKHOLDERS

January 24, 2014

Dear Fellow Stockholders:

We are pleased to report that the year ended November 30, 2013 was another very successful year for the Fund. For the third year in a row, the Fund has generated returns outpacing its peers. Fueled by a strengthening domestic economy, calendar 2013 will be remembered for the outstanding performance of the broader equity markets. The S&P 500 Index set many new all-time highs during 2013 and generated a total return of over 32% its strongest gain since 1995. While the MLP market, as measured by the Alerian MLP index, did not quite keep pace, it generated a total return of 28% during calendar 2013, which is outstanding when considering the fact that this performance was accomplished in a rising interest rate environment. More importantly, we believe the outlook for MLPs and Midstream Companies remains favorable and these sectors have the potential to generate double digit returns for several years to come.

As we have discussed in previous annual letters, the Shale Revolution (the development of domestic unconventional resources) continues to be the biggest story in the energy industry. As we predicted two years ago, it has become increasingly clear that the Shale Revolution will have an extremely meaningful impact on the broader domestic economy. Judging by the large number of news articles published in 2013 on the shale plays, hydraulic fracturing and the impact of surging domestic energy production, it is safe to say that most people are aware of the impact unconventional resources are having on all of our day-to-day lives. Job growth related to the energy industry, as well as from increased domestic manufacturing activity, continues to be a boon for the U.S. economy. This impact will continue for many years to come. Plentiful domestic energy supplies and low relative energy prices have led to a resurgence in U.S. manufacturing and positioned the U.S. to become one of the largest exporters of energy products in the world.

The Shale Revolution creates both challenges and opportunities for energy companies. As a result of production increases, significant amounts of new midstream assets must be built to facilitate transportation of this new production to end-users. We believe this creates a tremendous opportunity for MLPs and Midstream Companies. Conversely, increased production can put pressure on absolute commodity prices as witnessed by low natural gas and natural gas liquids prices in 2012 and 2013. It can also create very large pricing differences between geographic areas, which can result in producers receiving substantial discounts to market prices for their production. Further, production in new areas of the country is altering historical transportation routes and, as a result, materially impacting operating results (both positively and negatively) for certain midstream assets. Whether by pipeline or by rail, the transportation of energy products always involves risks, and it is important to understand which management teams are capable of managing these risks. We believe that our team of experienced investment professionals is well positioned to continue to navigate the ever-changing market conditions, as well as identify and capitalize on opportunities as they develop.

We are very proud of the Fund s performance during fiscal 2013. One of the measures we employ to evaluate our performance is Net Asset Value Return, which is equal to the change in net asset value per share plus the cash distributions paid during the period, assuming reinvestment through our dividend reinvestment program. For fiscal 2013, the Fund delivered a Net Asset Value Return of 30.5%, which was second best among all of its closed end fund peers. During the same period, the total return of the Alerian MLP index was 21.6%, a return which KMF outperformed by a remarkable 8.9%. We are also delighted to report that the Fund has generated a Net Asset Value Return of 78.5% since inception, outperforming the total return of the Alerian MLP index and S&P 500 index by 27% and 15%, respectively.

Another metric by which we measure the Fund s performance is Market Return, which is equal to the change in share price plus the cash distributions paid during the period, assuming reinvestment through our dividend reinvestment program. Our Market Return was 23.5% for fiscal 2013. This measure was below our Net Asset Value Return, as the discount of our share price to NAV increased during fiscal 2013. The discount was 3.3% on November 30, 2012 and 8.5% on November 30, 2013.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

LETTER TO STOCKHOLDERS

Market Overview

MLPs performed very well during the fiscal year, generating a 21.6% total return. Notably, MLPs delivered this strong performance despite the headwind of rising interest rates. At the beginning of fiscal 2013, the yield on 10-year U.S. Treasury Bonds was 1.61%. By November 30, 2013, the yield on these bonds was 2.74%, an increase of 113 basis points. This rise in rates resulted primarily from the anticipated reduction in the Federal Reserve s quantitative easing, which was a topic of constant speculation throughout much of the year. Over this same time period, the average MLP yield declined from 6.34% to 5.90%, resulting in the MLP spread to Treasuries contracting from 473 basis point to 316 basis points. The spread to Treasuries was abnormally wide at the start of 2013, and we believe market participants were building in a cushion based on the expectation of rising interest rates. In spite of the tightening of the spread to Treasuries, we continue to believe MLP yields are attractive, particularly relative to other income-oriented investments. As illustrated in Figure 1 below, MLP yields are significantly higher than yields for investment grade (Baa) bonds, utilities and REITs.

Figure 1. MLP Yields versus Other Income Alternatives (January 24, 2014)

Current yields are not the whole story, however. As we have highlighted over the years, we believe it is the combination of current yield and distribution growth that has contributed to the strong performance of MLPs and continues to make MLPs a compelling investment opportunity. During 2013, distributions grew 7.1% compared to 7.3% in 2012 and 6.3% in 2011, and we believe that prospects for distribution growth in 2014 are also very strong (we forecast growth in the 7% area). As a result, after taking distribution growth into consideration, MLPs look even more attractive relative to other income alternatives.

A major driver of distribution growth in the MLP sector has been the significant amounts of capital spent to build the midstream infrastructure required to handle growing oil and natural gas production from the development of unconventional reserves. In calendar 2013, we estimate that MLPs spent in excess of $25 billion on organic capital projects to construct and expand this critical energy infrastructure. We expect MLPs to spend in excess of $20 billion on organic growth projects during 2014. Distribution growth was also driven by acquisitions, and 2013 was one of the most active M&A markets we have ever seen. We estimate that MLPs announced over $65 billion in acquisitions during calendar 2013, including a record three MLP-to-MLP mergers, as well as several large joint ventures between MLPs. While it is difficult to predict merger and acquisition activity, we believe the strategic and competitive dynamics that led to the flurry of activity in 2013 could lead to further consolidation in 2014.

In order to fund these significant capital expenditures, access to the capital markets remains extremely important for MLPs. During calendar 2013, MLPs raised a record level of capital for the fourth consecutive year raising $15 billion in follow-on equity and $32 billion in debt. In addition, at-the-market, or ATM, equity offering programs, through which MLPs can sell equity on a daily basis, became much more popular during the year. We believe that MLPs raised well over $5 billion using ATM programs, which is another record. We expect

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LETTER TO STOCKHOLDERS

capital markets in 2014 to be at least as active as they were in 2013 and believe market conditions will be receptive for these deals.

There was also a record number of IPOs in the MLP sector during calendar 2013, with 21 IPOs raising $8.2 billion. Since 2010, there have been 54 IPOs, which is amazing considering there are only 114 MLPs currently trading. While the expansion of the sector has certainly been driven by the Shale Revolution, it is also important to note that quite a few of these new entrants are not traditional midstream businesses. In particular, the recent vintage of IPOs has seen refining, petrochemical, frac sand, wholesale fuel distribution and offshore drilling companies, among others, form MLPs. While we welcome the expansion of the MLP market into other businesses, we believe it is critical to understand the additional risks associated with these new businesses and will only invest in them if we are properly compensated for these additional risks.

At the same time, much larger energy companies such as Marathon Petroleum Corporation, Phillips 66 and Valero Energy Corporation, having seen the strategic importance of having an MLP, have formed their own MLPs. These MLPs are traditional MLPs and are often structured to have built-in growth for many years and little or no exposure to commodity prices, providing an interesting counter-balance to some of the new entrants with more volatile businesses. We expect the MLP market to continue to expand across the entire energy sector, as more companies view the formation of an MLP to be a strategic imperative. Furthermore, we expect the increasing diversity and complexity of the sector to create wider disparities in valuation and performance among MLPs.

Midstream Companies performed very well during fiscal 2013, generating a total return of 15.2%, based on a market weighted index of 20 Midstream Companies that we track. While this return was less than the broader markets, it comes on the heels of four straight years of double digit returns. Stock selection was particularly important during the year, and our portfolio of Midstream Company investments did better than the overall group.

As we have been discussing since our IPO in 2010, we believe that Midstream Companies will benefit from the same trends that are contributing to the growth of the MLP sector. The Fund was structured to benefit from the growth capital that is being deployed to service the new unconventional plays, whether such spending is by the Midstream Companies or their related MLPs. As a result, we believe that the Midstream Companies will continue to deliver very attractive returns for many years to come. In last year s letter, we predicted that more companies would seek to highlight the value of their midstream assets through formation of MLPs and strategic transactions. Our prediction proved to be correct, as the sector witnessed several transformative transactions during the year. These transactions included an $11 billion midstream joint venture between CenterPoint Energy, Inc. and OGE Energy Corp. (which will be taken public as an MLP), the drop-down of all of Spectra Energy Corp s U.S. transportation assets to its MLP, the spin-out of ONEOK, Inc. s natural gas distribution business into a separate public company and the $3 billion IPO of the general partner of Plains All American Pipeline, L.P. The market received these transactions favorably, and we expect Midstream Companies will continue to seek to monetize their midstream assets in MLP format, as well as highlight the value of their retained GP and LP ownership in their MLPs.

Energy Market Overview

We have been highlighting for several years that the development of unconventional reserves or shale plays is the biggest story in the energy market, and this year is no different. The development of these resources promises to be a multi-decade story. Over the past few years, the focus of activity has shifted from the gas-rich basins such as the Barnett Shale, the Fayetteville Shale and the Haynesville Shale, to more oil-rich and NGL-rich basins such as the Bakken Shale, Eagle Ford Shale, Marcellus Shale and Utica Shale.

As a result of continued development of shale plays, domestic production of crude oil, NGLs and natural gas grew in 2013 for the fifth consecutive year. Domestic crude oil production is expected to increase by over one

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million barrels per day in 2013 (a 16% increase), and for the second consecutive year, crude oil production has recorded the largest annual production increase in our country s history. Since its trough in 2008, domestic crude oil production has increased by over 50%. The U.S. is currently the largest producer of natural gas in the world, and many experts are predicting that it will become the largest producer of crude oil in the next five to ten years. Further, as discussed below in more detail, the U.S. is set to become one of the largest exporters of energy products over the next decade.

This rapid increase in production across all commodities is rapidly displacing imports. According to recent EIA data, the U.S was supplying over one-half of its own crude needs for the first time in almost 20 years and was a net exporter of petroleum products at the highest recorded level since the EIA has been tracking the data. These exports are driven in large part by refined products (exports of crude oil are, with a few minor exceptions, prohibited by U.S. laws), but there has also been significant growth in the export of natural gas liquids, or NGLs. In particular, Enterprise Products Partners L.P. and Targa Resources Partners LP began operating two newly constructed propane export terminals during 2013. Partly as a result of these projects, propane prices have recovered significantly in 2013, rising 59% from their lows in January. Both of these projects are being expanded and several other MLPs and Midstream Companies are evaluating NGL export projects of their own. There has also been significant interest among MLPs and other Midstream Companies in exporting natural gas as liquefied natural gas, or LNG. The LNG liquefaction projects are multi-billion dollar capital projects and are expected to be placed in service in the second half of this decade. Once in service, the U.S. will become a top exporter of LNG. These export opportunities will create large scale investment opportunities for both MLPs and Midstream Companies, as well as ensure a closer relationship between domestic energy prices and international prices.

There was no shortage of developments in the crude oil markets. During the year, we saw crude oil differentials (which is the spread between crude oil prices at different locations) widen to record levels to due excess supply in certain regions. To combat these differentials, a record amount of crude oil production was transported by rail cars and marine transportation in lieu of pipelines during 2013.

Increased production from new producing areas (such as the Bakken Shale and the Marcellus Shale) continues to have a material impact on historical transportation patterns. While this creates opportunities for many, as new midstream assets need to be built to facilitate product movement, it also creates challenges, as changing transportation patterns can put pressure on certain existing midstream assets that are no longer needed. For instance, oil production from the Bakken Shale, which is located in North Dakota, has increased five-fold in the last five years. The vast majority of that production is not consumed in North Dakota and it must be shipped to refineries elsewhere in the U.S. This has overwhelmed the existing midstream infrastructure in the area and created tremendous opportunities for MLPs and Midstream Companies to develop both short-term and long-term transportation solutions. In the Marcellus Shale, natural gas and NGL production has increased to levels well above what the Northeast uses for most of the year. This has put pressure on natural gas prices in the region, as insufficient infrastructure exists to move the natural gas to other markets. Additionally, the increased local production reduces the area s need to source natural gas from its traditional supplier the gulf coast of Texas and Louisiana and many of the pipelines from those regions need to be reconfigured in order to maintain their current cash flows. We continue to watch these trends very carefully and position the Fund s portfolio accordingly.

2014 Outlook

In summary, our outlook for 2014 is very positive. Continued development of unconventional reserves will create plentiful growth opportunities for both MLPs and Midstream Companies. For MLPs, we expect that distribution growth of approximately 7% will lead to another year of low double-digit total returns for the MLP sector. For the Midstream Companies that the Fund owns, we expect distribution growth to average over 15%, which should translate into strong total returns. While rising interest rates could lead to higher yields, ultimately,

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we believe these sectors attractive yields and prospects for many years of distribution growth will lead to a continuation of strong returns.

We look forward to executing on our business plan of achieving high after-tax total returns by investing in MLPs, Midstream Companies and other energy companies. We invite you to visit our website at kaynefunds.com for the latest updates.

Sincerely,

Kevin S. McCarthy

Chairman of the Board of Directors,

President and Chief Executive Officer

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

PORTFOLIO SUMMARY

(UNAUDITED)

Portfolio Investments by Category

November 30, 2013 **November 30, 2012**

Top 10 Holdings by Issuer

Holding	Sector[1]	Percent of Total Investments[2] as of November 30, 2013	2012
1. The Williams Companies, Inc.	Midstream Company	7.7%	8.7%
2. Kinder Morgan Management, LLC	Midstream MLP	7.5	8.4
3. ONEOK, Inc.	Midstream Company	6.9	7.3
4. Enbridge Energy Management, L.L.C.	Midstream MLP	5.8	3.7
5. Kinder Morgan, Inc.	Midstream Company	5.2	7.1
6. Plains GP Holdings, L.P.[3]	Midstream Company	3.7	1.8
7. Golar LNG Partners LP	Midstream Company	3.1	3.0
8. Targa Resources Corp.	Midstream Company	2.5	2.8
9. Crestwood Midstream Partners LP	Midstream MLP	2.4	2.0
10. Plains All American Pipeline, L.P.	Midstream MLP	2.1	2.3

(1) See Glossary of Key Terms for Definitions.
(2) Includes cash and repurchase agreement (if any).
(3) We hold an interest in Plains All American GP LLC (PAA GP), which controls the general partner of Plains All American, L.P. Our ownership of PAA GP is exchangeable into shares of Plains GP Holdings, L.P. (which trades on the NYSE under the ticker PAGP) on a one-for-one basis at our option. See Note 3 Fair Value.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

Fund Overview

Kayne Anderson Midstream/Energy Fund, Inc. is a non-diversified, closed-end fund. We commenced operations on November 24, 2010. Our shares of common stock are listed on the New York Stock Exchange under the symbol KMF.

Our investment objective is to provide a high level of total return with an emphasis on making quarterly cash distributions to our stockholders. We seek to achieve that investment objective by investing at least 80% of our total assets in the securities of companies in the Midstream/Energy Sector, consisting of (a) Midstream MLPs, (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies. We anticipate that the majority of our investments will consist of investments in Midstream MLPs and Midstream Companies. Please see the Glossary of Key Terms on page 42 for a description of these investment categories and for the meaning of capitalized terms not otherwise defined herein.

As of November 30, 2013, we had total assets of $1.1 billion, net assets applicable to our common stock of $788 million (net assets of $35.75 per share), and 22 million shares of common stock outstanding. As of November 30, 2013, we held $975 million in equity investments and $131 million in debt investments.

Results of Operations For the Three Months Ended November 30, 2013

Investment Income. Investment income totaled $5.0 million for the quarter and consisted primarily of net dividends and distributions and interest income on our investments. We received $10.8 million of dividends and distributions, of which $8.5 million was treated as return of capital. Return of capital was increased by $2.3 million during the quarter due to 2012 tax reporting information that was received in fiscal 2013. Interest and other income was $2.7 million. We received $2.5 million of paid-in-kind dividends during the quarter, which are not included in investment income, but are reflected as an unrealized gain.

Operating Expenses. Operating expenses totaled $7.8 million, including $3.4 million of investment management fees, $2.5 million of interest expense (including non-cash amortization of debt issuance costs of $0.2 million), $0.8 million of excise taxes (see Note 2 Significant Accounting Policies for a description of excise taxes), $0.3 million of other operating expenses and $0.8 million of preferred stock distributions.

Net Investment Loss. Our net investment loss totaled $2.8 million.

Net Realized Gains. We had net realized gains of $9.9 million, which includes $0.6 million of net realized gains from option activity.

Net Change in Unrealized Gains. We had a net increase in unrealized gains of $33.1 million. The net increase consisted of $33.6 million of unrealized gains from investments and $0.5 million of net unrealized losses from option activity.

Net Increase in Net Assets Resulting from Operations. We had an increase in net assets resulting from operations of $40.2 million. This increase was comprised of net investment loss of $2.8 million, net realized gains of $9.9 million and net increase in unrealized gains of $33.1 million, as noted above.

Results of Operations For the Fiscal Year Ended November 30, 2013

Investment Income. Investment income totaled $26.1 million for the year and consisted primarily of net dividends and distributions and interest income on our investments. We received $39.2 million of dividends and distributions, of which $23.8 million was treated as return of capital. Return of capital was increased by $2.3 million during the fiscal year due to 2012 tax reporting information that was received in fiscal year 2013. Interest and other income was $10.8 million. We received $10.1 million of paid-in-kind dividends during the fiscal year, which are not included in investment income, but are reflected as an unrealized gain.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

Operating Expenses. Operating expenses totaled $28.4 million, including $12.8 million of investment management fees, $9.5 million of interest expense (including non-cash amortization of debt issuance costs of $0.7 million), $1.2 million of excise taxes (see Note 2 Significant Accounting Policies for a description of excise taxes), $1.6 million of other operating expenses and $3.3 million of preferred stock distributions (including non-cash amortization of offering costs of $0.1 million).

Net Investment Loss. Our net investment loss totaled $2.3 million.

Net Realized Gains. We had net realized gains of $43.9 million, which includes $4.1 million of net realized gains from option activity.

Net Change in Unrealized Gains. We had a net increase in unrealized gains of $146.3 million. The net increase consisted of $145.9 million of unrealized gains from investments and $0.4 million of net unrealized gains from option activity.

Net Increase in Net Assets Resulting from Operations. We had an increase in net assets resulting from operations of $187.9 million. This increase was comprised of net investment loss of $2.3 million, net realized gains of $43.9 million and net increase in unrealized gains of $146.3 million, as noted above.

Distribution to Common Stockholders

We pay quarterly distributions to our common stockholders, funded generally by net distributable income (NDI) generated from our portfolio investments. NDI is the amount of income received by us from our portfolio investments less operating expenses, subject to certain adjustments as described below. NDI is not a financial measure under the accounting principles generally accepted in the United States of America (GAAP). Refer to the Reconciliation of NDI to GAAP section below for a reconciliation of this measure to our results reported under GAAP.

Income from portfolio investments includes (a) cash dividends and distributions, (b) paid-in-kind dividends received (*i.e*., stock dividends), (c) interest income from debt securities and commitment fees from private investments in public equity (PIPE investments) and (d) net premiums received from the sale of covered calls.

Operating expenses include (a) investment management fees paid to our investment adviser, (b) other expenses (mostly comprised of fees paid to other service providers) and (c) interest expense and preferred stock distributions.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

Net Distributable Income (NDI)

(amounts in millions, except for per share amounts)

	Three Months Ended November 30, 2013	Fiscal Year Ended November 30, 2013
Distributions and Other Income from Investments		
Dividends and Distributions[(1)]	$ 10.8	$ 39.2
Paid-In-Kind Dividends and Distributions[(1)]	2.5	10.1
Interest and Other Income	2.7	10.8
Net Premiums Received from Call Options Written	1.8	7.8
Total Distributions and Other Income from Investments	17.8	67.9
Expenses		
Investment Management Fee	(3.4)	(12.8)
Other Expenses	(0.3)	(1.6)
Excise Taxes[(2)]	(0.8)	(1.2)
Interest Expense	(2.3)	(8.8)
Preferred Stock Distributions	(0.8)	(3.2)
Net Distributable Income (NDI)	**$ 10.2**	**$ 40.30**
Weighted Shares Outstanding	22.0	22.0
NDI per Weighted Share Outstanding	**$ 0.463**	**$ 1.834**
Adjusted NDI per Weighted Share Outstanding[(3)(4)]	**$ 0.448**	**$ 1.811**
Distributions paid per Common Share[(5)]	**$ 0.465**	**$ 1.830**

(1) See Note 2 (Investment Income) to the Financial Statements for additional information regarding paid-in-kind and non-cash dividends and distributions.

(2) During the three months ended November 30, 2013, we accrued $0.8 million of excise tax expense. This excise tax is a result of our estimated undistributed income as of November 30, 2013. We incurred $1.2 million of excise tax expense for fiscal 2013, of which $0.4 million was attributable to fiscal 2012. See Notes 2 and 6 to the Financial Statements for a description of excise taxes and additional details regarding the Fund s excise taxes for fiscal 2012 and fiscal 2013.

(3) During the three months ended November 30, 2013, PAA GP paid a special distribution prior to its IPO of $0.9 million (the PAA Special Distribution), which was excluded from adjusted NDI. Adjusted NDI for the fiscal fourth quarter of 2013 includes $0.2 million of excise tax expense (25% of the amount attributable to fiscal 2013).

(4) Adjusted NDI for the twelve months ended November 30, 2013 excludes the PAA Special Distribution ($0.9 million) and includes $0.8 million of excise tax expense attributable to fiscal 2013.

(5) The distribution of $0.465 per share for the fourth quarter of fiscal 2013 was paid on January 10, 2014. Distributions for fiscal 2013 include the distributions paid in April 2013, July 2013, October 2013 and January 2014.

Payment of future distributions is subject to Board of Directors approval, as well as meeting the covenants of our debt agreements and terms of our preferred stock. In determining our quarterly distribution to common stockholders, our Board of Directors considers a number of factors that include, but are not limited to:

- NDI and Adjusted NDI generated in the current quarter;
- Expected NDI over the next twelve months; and
- Realized and unrealized gains generated by the portfolio.

On December 19, 2013, we declared a quarterly distribution of $0.465 per common share for the fourth quarter of fiscal 2013 (a total distribution of $10.3 million). The distribution represents an increase of 1.1% from the prior quarter s distribution and an increase of 5.1% from the distribution for the quarter ended November 30, 2012. The distribution was paid on January 10, 2014 to common stockholders of record on December 30, 2013.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

Reconciliation of NDI to GAAP

The difference between distributions and other income from investments in the NDI calculation and total investment income as reported in our Statement of Operations is reconciled as follows:

GAAP recognizes that a significant portion of the cash distributions received from MLPs is characterized as a return of capital and therefore excluded from investment income, whereas the NDI calculation includes the return of capital portion of such distributions.

NDI includes the value of paid-in-kind dividends and distributions whereas such amounts are not included as investment income for GAAP purposes, but rather are recorded as unrealized gains upon receipt.

NDI includes commitment fees from PIPE investments, whereas such amounts are generally not included in investment income for GAAP purposes, but rather are recorded as a reduction to the cost of the investment.

Certain of our investments in debt securities were purchased at a discount or premium to the par value of such security. When making such investments, we consider the security s yield to maturity, which factors in the impact of such discount (or premium). Interest income reported under GAAP includes the non-cash accretion of the discount (or amortization of the premium) based on the effective interest method. When we calculate interest income for purposes of determining NDI, in order to better reflect the yield to maturity, the accretion of the discount (or amortization of the premium) is calculated on a straight-line basis to the earlier of the expected call date or the maturity date of the debt security.

We may sell covered call option contracts to generate income or to reduce our ownership of certain securities that we hold. In some cases, we are able to repurchase these call option contracts at a price less than the premium that we received, thereby generating a profit. The premium we receive from selling call options, less (i) the amount that we pay to repurchase such call option contracts and (ii) the amount by which the market price of an underlying security is above the strike price at the time a new call option is written (if any), is included in NDI. For GAAP purposes, premiums received from call option contracts sold are not included in investment income. See Note 2 Significant Accounting Policies for a full discussion of the GAAP treatment of option contracts.

The treatment of expenses included in NDI also differs from what is reported in the Statement of Operations as follows:

The non-cash amortization or write-offs of capitalized debt issuance costs and preferred stock offering costs related to our financings is included in interest expense and distributions on mandatory redeemable preferred stock for GAAP purposes, but is excluded from our calculation of NDI.

NDI also includes recurring payments (or receipts) on interest rate swap contracts (excluding termination payments) whereas for GAAP purposes, these amounts are included in the realized gains/losses section of the Statement of Operations.

Under GAAP, excise taxes are accrued when probable and estimable. For NDI, we amortize the annual excise tax expense over four quarters.

Liquidity and Capital Resources

Total leverage outstanding at November 30, 2013 of $320 million was comprised of $205 million of senior unsecured notes (Senior Notes), $50 million outstanding under our unsecured revolving credit facility (the Credit Facility) and $65 million of mandatory redeemable preferred stock. Total leverage represented 29% of total assets at November 30, 2013. As of January 24, 2014, we had $12 million borrowed under our Credit Facility, and we had $2.4 million of cash.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

MANAGEMENT DISCUSSION

(UNAUDITED)

On November 21, 2013, we entered into a new Credit Facility with a syndicate of lenders. The new Credit Facility has a three-year commitment maturing on November 21, 2016 and a total commitment amount of $105 million, an increase of $5 million from our prior Credit Facility. Under the new Credit Facility, the interest rate varies between LIBOR plus 1.50% and LIBOR plus 2.15%, depending on our asset coverage ratios (prior to the renewal, the interest rate varied between LIBOR plus 1.75% and LIBOR plus 2.25%). We pay a fee of 0.25% per annum on any unused amounts of the new Credit Facility (the fee was 0.35% per annum prior to the renewal).

We had $205 million of Senior Notes outstanding at November 30, 2013, which mature between 2016 and 2023. At November 30, 2013, we had $65 million of mandatory redeemable preferred stock outstanding, which is subject to mandatory redemption in 2018 and 2020.

At November 30, 2013, our asset coverage ratios under the Investment Company Act of 1940, as amended (the 1940 Act), were 435% for debt and 346% for total leverage (debt plus preferred stock). Our long-term target asset coverage ratio with respect to our debt is 400%, but at times we may be above or below our target depending on market conditions.

As of November 30, 2013, our total leverage consisted of both fixed rate (84%) and floating rate (16%) obligations. At such date, the weighted average interest/dividend rate on our total leverage was 3.89%.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

NOVEMBER 30, 2013

(amounts in 000 s, except number of option contracts)

Description	No. of Shares/Units	Value
Long-Term Investments 140.3%		
Equity Investments[1] 123.7%		
United States 117.9%		
Midstream Company[2] 56.1%		
Capital Product Partners L.P.[3]	1,354	$ 12,132
Capital Products Partners L.P. Class B Units[3][4][5]	606	5,776
CenterPoint Energy, Inc.[6]	508	11,912
Dynagas LNG Partners LP[3][7]	800	14,993
Golar LNG Partners LP[3]	1,073	34,324
Kinder Morgan, Inc.	1,636	58,147
KNOT Offshore Partners LP[3]	578	16,210
NiSource Inc.[6]	419	13,246
ONEOK, Inc.[6]	1,320	76,657
Plains GP Holdings, L.P.[7][8]	64	1,506
Plains GP Holdings, L.P. Unregistered[4][8][9]	1,836	39,320
Spectra Energy Corp.[6]	675	22,646
Targa Resources Corp.[6]	336	27,259
Teekay Offshore Partners L.P.[3][6]	454	14,916
Teekay Offshore Partners L.P. Series A Preferred Units[3][10]	300	7,584
The Williams Companies, Inc.[6]	2,423	85,332
		441,960
Midstream MLP[2][11] 52.5%		
Access Midstream Partners, L.P.	115	6,448
Arc Logistics Partners LP[7]	82	1,654
Atlas Pipeline Partners, L.P.[6]	74	2,577
Buckeye Partners, L.P.	328	22,323
Crestwood Equity Partners LP	268	4,129
Crestwood Midstream Partners LP	1,190	26,935
Crosstex Energy, L.P.	498	13,260
DCP Midstream Partners, LP	374	18,002
Enbridge Energy Management, L.L.C.[12][13]	2,244	64,081
Energy Transfer Partners, L.P.[14]	283	15,352
Enterprise Products Partners L.P.[14]	336	21,133
Exterran Partners, L.P.	322	8,964
Global Partners LP	326	11,706
Holly Energy Partners, L.P.	10	308
Kinder Morgan Management, LLC[6][12][13]	1,082	82,834
MarkWest Energy Partners, L.P.[8]	188	13,014
Niska Gas Storage Partners LLC	107	1,634
NuStar Energy L.P.[6]	53	2,817
ONEOK Partners, L.P.	210	11,221
Plains All American Pipeline, L.P.[8]	459	23,666

PVR Partners, L.P.[6]	333	8,236
QEP Midstream Partners, LP	50	1,139
Regency Energy Partners LP	719	17,522
Sprague Resources LP[7]	6	102
Summit Midstream Partners, LP	90	3,032
Targa Resources Partners LP	64	3,252
USA Compression Partners, LP	14	338

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

NOVEMBER 30, 2013

(amounts in 000 s, except number of option contracts)

Description	No. of Shares/Units	Value
Midstream MLP(2)(11) (continued)		
Western Gas Partners, LP	148	$ 9,393
Williams Partners L.P.	364	18,706
		413,778
Other Energy 7.4%		
Enduro Royalty Trust	320	4,237
Ensco plc(6)	123	7,237
HollyFrontier Corporation(6)	102	4,885
Marathon Petroleum Corporation(6)	106	8,746
NRG Yield, Inc. Class A(6)	97	3,507
Pacific Coast Oil Trust	376	5,354
Phillips 66(6)	11	745
Seadrill Limited(6)	197	8,405
The Southern Company(6)	104	4,209
Transocean Ltd.(6)	161	8,121
VOC Energy Trust	173	2,837
		58,283
Other 1.2%		
Navios Maritime Partners L.P.(3)	273	4,584
Seaspan Corporation 7.95% Series D Preferred Shares	200	5,000
		9,584
Other MLP(11) 0.7%		
BreitBurn Energy Partners L.P.	190	3,585
Lehigh Gas Partners LP	5	153
LRR Energy LP	52	851
Suncoke Energy Partners, L.P.	32	863
		5,452
Total United States (Cost $689,756)		929,057
Canada 5.8%		
Midstream Company(2) 5.6%		
Enbridge Inc.	467	19,302
Gibson Energy Inc.	39	932
Inter Pipeline Ltd.	199	4,768
Keyera Corp.	83	4,780

Pembina Pipeline Corporation	327	10,408
TransCanada Corporation[(6)]	90	3,995
		44,185
Other Energy 0.2%		
Crescent Point Energy Corp.	50	1,878
Total Canada (Cost $42,433)		46,063
Total Equity Investments (Cost $732,189)		975,120

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

NOVEMBER 30, 2013

(amounts in 000 s, except number of option contracts)

Description	Interest Rate	Maturity Date	Principal Amount	Value
Debt Instruments 16.6%				
Upstream 15.7%				
Aurora Oil & Gas Limited	7.500%	4/1/20	$ 9,600	$ 9,936
BlackBrush Oil & Gas, L.P.	(15)	6/3/19	8,666	8,753
Clayton Williams Energy, Inc.	7.750	4/1/19	6,921	7,163
Clayton Williams Energy, Inc.	7.750	4/1/19	2,000	2,070
CrownRock, L.P.	7.125	4/15/21	4,500	4,590
Diamondback Energy, Inc.	7.625	10/1/21	2,500	2,625
El Paso Corporation	7.750	1/15/32	3,875	3,984
Halcón Resources Corporation	9.750	7/15/20	15,250	16,241
Midstates Petroleum Company, Inc.	10.750	10/1/20	3,850	4,216
Midstates Petroleum Company, Inc.	9.250	6/1/21	7,800	8,180
Penn Virginia Corporation	8.500	5/1/20	11,800	12,700
Resolute Energy Corporation	8.500	5/1/20	3,775	3,983
Rex Energy Corporation	8.875	12/1/20	11,000	12,072
Sanchez Energy Corporation	7.750	6/15/21	7,750	7,963
Rice Drilling B LLC	(16)	10/22/18	5,577	5,689
RKI Exploration & Production, LLC	8.500	8/1/21	12,500	13,125
				123,290
Coal 0.9%				
Arch Coal, Inc.	7.250	6/15/21	9,500	7,244
Total Debt Investments (Cost $126,170)				130,534
Total Long-Term Investments (Cost $858,359)				1,105,654

	Strike Price	Expiration Date	No. of Contracts	
Liabilities				
Call Option Contracts Written(17)				
United States				
Midstream Company				
CenterPoint Energy, Inc.	$ 25.00	1/15/14	1,000	(50)
NiSource Inc.	33.00	1/15/14	1,400	(31)
ONEOK, Inc.	60.00	1/15/14	2,160	(205)
ONEOK, Inc.	62.50	1/15/14	1,440	(58)
Spectra Energy Corp.	35.00	1/15/14	1,200	(36)
Targa Resources Corp.	80.00	12/18/13	350	(81)
Targa Resources Corp.	85.00	1/15/14	1,625	(163)
Teekay Offshore Partners L.P.	33.00	1/15/14	500	(41)
The Williams Companies, Inc.	36.00	1/15/14	1,700	(95)

(760)

Midstream MLP				
Atlas Pipeline Partners, L.P.	36.00	1/15/14	700	(45)
Kinder Morgan Management, LLC	75.00	1/15/14	600	(150)
NuStar Energy L.P.	55.00	1/15/14	50	(11)
PVR Partners, L.P.	25.00	1/15/14	300	(18)
				(224)

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

NOVEMBER 30, 2013

(amounts in 000 s, except number of option contracts)

Description	Strike Price	Expiration Date	No. of Contracts	Value
Other Energy				
Ensco plc	$ 62.50	1/15/14	1,225	$ (73)
HollyFrontier Corporation	47.50	12/18/13	250	(35)
HollyFrontier Corporation	48.50	12/18/13	250	(24)
HollyFrontier Corporation	49.00	1/15/14	250	(37)
Marathon Petroleum Corporation	77.50	1/15/14	200	(142)
Marathon Petroleum Corporation	80.00	1/15/14	500	(270)
Marathon Petroleum Corporation	82.50	1/15/14	50	(20)
Marathon Petroleum Corporation	85.00	1/15/14	300	(84)
NRG Yield, Inc. Class A	35.00	1/15/14	500	(104)
Phillips 66	70.00	1/15/14	105	(26)
Seadrill Limited	47.00	1/15/14	110	(1)
The Southern Company	43.00	1/15/14	300	(4)
Transocean Ltd.	52.50	1/15/14	674	(62)
Transocean Ltd.	55.00	1/15/14	250	(10)
Transocean Ltd.	57.50	1/15/14	300	(5)
				(897)
Total United States (Premium Received $1,666)				(1,881)
Canada				
Midstream Company				
TransCanada Corporation (Premium Received $84)	45.00	1/15/14	900	(56)
Total Call Option Contracts Written (Premiums Received $1,750)				(1,937)
Credit Facility				(50,000)
Senior Unsecured Notes				(205,000)
Mandatory Redeemable Preferred Stock at Liquidation Value				(65,000)
Other Liabilities				(10,721)
Total Liabilities				(332,658)
Other Assets				15,061
Total Liabilities in Excess of Other Assets				(317,597)
Net Assets Applicable to Common Stockholders				$ 788,057

(1) Unless otherwise noted, equity investments are common units/common shares.

(2) Refer to the Glossary of Key Terms (page 42) for the definition of Midstream Companies and Midstream MLPs.

(3) This company is structured like an MLP but is not treated as a publicly-traded partnership for RIC qualification purposes.

(4) Fair valued security, restricted from public sale. See Notes 2, 3 and 7 in Notes to Financial Statements.

(5) Class B Units are convertible on a one-for-one basis into common units of Capital Product Partners L.P. (CPLP) and are senior to the common units in terms of liquidation preference and priority of distributions. The Class B Units pay quarterly cash distributions of \$0.21375 per unit and are convertible at any time at the option of the holder. If CPLP increases the quarterly cash distribution per common unit, the distribution per Class B Unit will increase by an equal amount. If CPLP does not redeem the Class B Units by May 2022, then the distribution increases by 25% per quarter to a maximum of \$0.33345 per unit. CPLP may require

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

SCHEDULE OF INVESTMENTS

NOVEMBER 30, 2013

(amounts in 000 s, except number of option contracts)

that the Class B Units convert into common units after May 2015 if the common unit price exceeds $11.70 per unit, and the Class B Units are callable after May 2017 at a price of $9.27 per unit and after May 2019 at $9.00 per unit.

(6) Security or a portion thereof is segregated as collateral on option contracts written.

(7) Security is not currently paying cash distributions but is expected to pay cash distributions within the next 12 months.

(8) The Fund believes that it is an affiliate of MarkWest Energy Partners, L.P., Plains All American Pipeline, L.P. and Plains GP Holdings, L.P. (Plains GP) See Note 5 Agreements and Affiliations.

(9) The Fund holds an interest in Plains All American GP LLC (PAA GP), which controls the general partner of Plains All American, L.P. The Fund s ownership of PAA GP is exchangeable into shares of Plains GP (which trades on the NYSE under the ticker PAGP) on a one-for-one basis at the Fund s option. See Note 3 Fair Value.

(10) Series A Preferred Units represent preferred equity interests in Teekay Offshore Partners L.P. (TOO). The Series A Preferred Units are perpetual and are senior to the common units in terms of liquidation preference and priority of distributions. Series A Preferred Units do not have any conversion or exchange rights and pay quarterly cash distributions of $0.453125 per unit. At any time on or after April 30, 2018, TOO may redeem the Series A Preferred Units at a redemption price of $25.00 per unit plus all accumulated and unpaid distributions.

(11) Unless otherwise noted, securities are treated as a publicly-traded partnership for regulated investment company (RIC) qualification purposes. To qualify as a RIC for tax purposes, the Fund may directly invest up to 25% of its total assets in equity and debt securities of entities treated as publicly-traded partnerships. The Fund had 24.3% of its total assets invested in publicly-traded partnerships at November 30, 2013. It is the Fund s intention to be treated as a RIC for tax purposes.

(12) Dividends are paid-in-kind.

(13) Security is not treated as a publicly-traded partnership for RIC qualification purposes.

(14) In lieu of cash distributions, the Fund has elected to receive distributions in additional units/stock through the issuer s dividend reinvestment program.

(15) Floating rate first lien secured term loan. Security pays interest at a rate of LIBOR + 650 basis points with a 1.25% LIBOR floor (7.75% as of November 30, 2013).

(16) Floating rate second lien secured term loan. Security pays interest at a rate of LIBOR + 725 basis points with a 1.25% LIBOR floor (8.50% as of November 30, 2013).

(17) Security is non-income producing.

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

STATEMENT OF ASSETS AND LIABILITIES

NOVEMBER 30, 2013

(amounts in 000 s, except share and per share amounts)

ASSETS	
Investments, at fair value:	
Non-affiliated (Cost $826,900)	$ 1,028,148
Affiliated (Cost $31,459)	77,506
Total investments (Cost $858,359)	1,105,654
Cash (Cost $2,663)	2,658
Deposits with brokers	518
Receivable for securities sold	4,467
Interest, dividends and distributions receivable	4,057
Deferred debt and preferred stock offering costs and other assets	3,361
Total Assets	1,120,715
LIABILITIES	
Payable for securities purchased	5,459
Investment management fee payable	1,113
Call option contracts written (Premiums received $1,750)	1,937
Accrued directors fees and expenses	50
Accrued excise taxes	750
Accrued expenses and other liabilities	3,349
Credit facility	50,000
Senior unsecured notes	205,000
Mandatory redeemable preferred stock, $25.00 liquidation value per share (2,600,000 shares issued and outstanding)	65,000
Total Liabilities	332,658
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	$ 788,057
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS CONSIST OF	
Common stock, $0.001 par value (22,044,045 shares issued and outstanding and 197,400,000 shares authorized)	$ 22
Paid-in capital	524,651
Accumulated net investment income less distributions not treated as tax return of capital	(10,468)
Accumulated net realized gains less distributions not treated as tax return of capital	26,751
Net unrealized gains	247,101
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS	$ 788,057
NET ASSET VALUE PER COMMON SHARE	$ 35.75

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

STATEMENT OF OPERATIONS

FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2013

(amounts in 000 s)

INVESTMENT INCOME	
Income	
Dividends and distributions:	
Non-affiliated investments	$ 35,556
Affiliated investments	3,600
Total dividends and distributions (after foreign taxes withheld of $264)	39,156
Return of capital	(23,840)
Net dividends and distributions	15,316
Interest and other income	10,750
Total Investment Income	26,066
Expenses	
Investment management fees	12,793
Professional fees	415
Administration fees	234
Directors fees and expenses	192
Reports to stockholders	141
Custodian fees	125
Insurance	171
Other expenses	321
Total Expenses before interest expense, preferred distributions and excise taxes	14,392
Interest expense and amortization of offering costs	9,488
Distributions on mandatory redeemable preferred stock and amortization of offering costs	3,341
Excise taxes	1,160
Total Expenses	28,381
Net Investment Loss	(2,315)
REALIZED AND UNREALIZED GAINS (LOSSES)	
Net Realized Gains	
Investments non-affiliated	40,612
Investments affiliated	(297)
Foreign currency transactions	(84)
Options	4,076
Interest rate swap contracts	(385)
Net Realized Gains	43,922
Net Change in Unrealized Gains	
Investments non-affiliated	114,357

Investments affiliated	31,526
Foreign currency translations	(9)
Options	369
Net Change in Unrealized Gains	146,243
Net Realized and Unrealized Gains	190,165
NET INCREASE IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS RESULTING FROM OPERATIONS	$ 187,850

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

STATEMENT OF CHANGES IN NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS

(amounts in 000 s, except share amounts)

	For the Fiscal Year Ended November 30,	
	2013	**2012**
OPERATIONS		
Net investment income (loss)(1)	$ (2,315)	$ 3,648
Net realized gains	43,922	36,772
Net change in unrealized gains	146,243	64,045
Net Increase in Net Assets Resulting from Operations	187,850	104,465
DIVIDENDS AND DISTRIBUTIONS TO COMMON STOCKHOLDERS(1)(2)		
Dividends	(25,108)	(28,368)
Distributions net long-term capital gains	(14,572)	(8,804)
Dividends and Distributions to Common Stockholders	(39,680)	(37,172)
CAPITAL STOCK TRANSACTIONS		
Issuance of 148,803 and 231,265 shares of common stock from reinvestment of dividends and distributions, respectively	4,661	5,889
Total Increase in Net Assets Applicable to Common Stockholders	152,831	73,182
NET ASSETS APPLICABLE TO COMMON STOCKHOLDERS		
Beginning of year	635,226	562,044
End of year	$ 788,057	$ 635,226

(1) Distributions on the Fund s mandatory redeemable preferred stock are treated as an operating expense under GAAP and are included in the calculation of net investment income (loss). See Note 2 Significant Accounting Policies. Distributions in the amount of $3,212 paid to mandatory redeemable preferred stockholders for the fiscal year ended November 30, 2013 were characterized as dividend income ($2,007) and as long-term capital gains ($1,205). Distributions in the amount of $2,803 paid to mandatory redeemable preferred stockholders for the fiscal year ended November 30, 2012 were characterized as dividend income ($2,139) and as long-term capital gains ($664). A portion of the distributions characterized as dividend income (both fiscal 2013 and fiscal 2012) was eligible to be treated as qualified dividend income. This characterization is based on the Fund s earnings and profits.

(2) Distributions paid to common stockholders for the fiscal years ended November 30, 2013 and 2012 are characterized as either dividends (a portion was eligible to be treated as qualified dividend income) or distributions (long-term capital gains). This characterization is based on the Fund s earnings and profits.

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

STATEMENT OF CASH FLOWS

FOR THE FISCAL YEAR ENDED NOVEMBER 30, 2013

(amounts in 000 s)

CASH FLOWS FROM OPERATING ACTIVITIES	
Net increase in net assets resulting from operations	$ 187,850
Adjustments to reconcile net increase in net assets resulting from operations to net cash used in operating activities:	
Return of capital distributions	23,840
Net realized gains (excluding foreign currency transactions)	(44,006)
Net unrealized gains (excluding foreign currency translations)	(146,252)
Accretion of bond discounts, net	(104)
Purchase of long-term investments	(534,409)
Proceeds from sale of long-term investments	501,952
Increase in deposits with brokers	(268)
Increase in receivable for securities sold	(1,180)
Increase in interest, dividends and distributions receivable	(559)
Amortization of deferred debt offering costs	649
Amortization of mandatory redeemable preferred stock offering costs	129
Increase in other assets, net	(324)
Increase in payable for securities purchased	5,040
Increase in investment management fee payable	163
Decrease in call option contracts written, net	(498)
Increase in accrued directors fees and expenses	2
Increase in accrued excise taxes	750
Increase in accrued expenses and other liabilities	291
Net Cash Used in Operating Activities	(6,934)
CASH FLOWS FROM FINANCING ACTIVITIES	
Increase in borrowings under credit facility	2,000
Proceeds from offering of senior unsecured notes	40,000
Costs associated with issuance of the revolving credit facility	(1,008)
Costs associated with offering of senior unsecured notes	(386)
Cash distributions paid to common stockholders, net	(35,019)
Net Cash Provided by Financing Activities	5,587
NET DECREASE IN CASH	(1,347)
CASH BEGINNING OF YEAR	4,005
CASH END OF YEAR	$ 2,658

Supplemental disclosure of cash flow information:

Non-cash financing activities not included herein consisted of reinvestment of distributions of $4,661 pursuant to the Fund s dividend reinvestment plan.

During the fiscal year ended November 30, 2013, interest paid was $8,566 and federal excise tax paid was $410.

During the fiscal year ended November 30, 2013, the Fund received $11,043 of paid-in-kind and non-cash dividends and distributions. See Note 2 Significant Accounting Policies.

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

FINANCIAL HIGHLIGHTS

(amounts in 000 s, except share and per share amounts)

	For the Fiscal Year Ended November 30, 2013	2012	2011	For the Period November 24, 2010[1] through November 30, 2010
Per Share of Common Stock[2]				
Net asset value, beginning of period	$ 29.01	$ 25.94	$ 23.80	$ 23.83[3]
Net investment income (loss)[4]	(0.06)	0.17	0.29	(0.02)
Net realized and unrealized gains (losses)	8.61	4.64	3.12	(0.01)
Total income (loss) from operations	8.55	4.81	3.41	(0.03)
Common dividends dividend income[5]	(1.15)	(1.30)	(1.20)	
Common distributions long-term capital gains[5]	(0.66)	(0.41)		
Common distributions return of capital[5]				
Total dividends and distributions common	(1.81)	(1.71)	(1.20)	
Effect of shares issued in reinvestment of distributions		(0.03)	(0.04)	
Effect of issuance of common stock			(0.03)	
Net asset value, end of period	$ 35.75	$ 29.01	$ 25.94	$ 23.80
Market value per share of common stock, end of period	$ 32.71	$ 28.04	$ 22.46	$ 25.00
Total investment return based on common stock market value[6]	23.5%	33.3%	(5.5)%	0.0%[7]
Supplemental Data and Ratios[8]				
Net assets applicable to common stockholders, end of period	$ 788,057	$ 635,226	$ 562,044	$ 452,283
Ratio of expenses to average net assets				
Management fees[9]	1.8%	1.7%	1.6%	1.3%
Other expenses	0.2	0.3	0.3	0.3[10]
Excise taxes	0.1			
Subtotal	2.1	2.0	1.9	1.6
Interest expense and distributions on mandatory redeemable preferred stock[4]	1.8	1.8	1.3	
Management fee waiver			(0.3)	(0.3)
Total expenses	3.9%	3.8%	2.9%	1.3%
Ratio of net investment income (loss) to average net assets[4]	(0.2)%	0.6%	1.1%	(1.3)%[10]
Net increase (decrease) in net assets applicable to common stockholders resulting from operations to average net assets	25.9%	16.8%	13.4%	(0.1)%[7]
Portfolio turnover rate	49.1%	67.6%	74.1%	0.0%[7]
Average net assets	$ 726,248	$ 620,902	$ 537,044	$ 452,775

Senior unsecured notes outstanding, end of period	205,000	165,000	115,000	
Credit facility outstanding, end of period	50,000	48,000	45,000	
Mandatory redeemable preferred stock, end of period	65,000	65,000	35,000	
Average shares of common stock outstanding	21,969,288	21,794,596	21,273,512	19,004,000
Asset coverage of total debt(11)	434.5%	428.7%	473.2%	
Asset coverage of total leverage (debt and preferred stock)(12)	346.3%	328.5%	388.2%	
Average amount of borrowings per share of common stock during the period(2)	$ 10.51	$ 8.85	$ 6.50	

See accompanying notes to financial statements.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

FINANCIAL HIGHLIGHTS

(amounts in 000 s, except share and per share amounts)

(1) Commencement of operations.

(2) Based on average shares of common stock outstanding.

(3) Initial public offering price of $25.00 per share less underwriting discounts of $1.125 per share and offering costs of $0.05 per share.

(4) Distributions on the Fund s mandatory redeemable preferred stock are treated as an operating expense under GAAP and are included in the calculation of net investment income (loss). See Note 2 Significant Accounting Policies.

(5) The information presented for each period is a characterization of the total distributions paid to the common stockholders as either a dividend (a portion was eligible to be treated as qualified dividend income) or a distribution (long-term capital gains or return of capital) and is based on the Fund s earnings and profits.

(6) Total investment return is calculated assuming a purchase of common stock at the market price on the first day and a sale at the current market price on the last day of the period reported. The calculation also assumes reinvestment of distributions at actual prices pursuant to the Fund s dividend reinvestment plan.

(7) Not annualized.

(8) Unless otherwise noted, ratios are annualized.

(9) Ratio reflects total management fee before waiver.

(10) For purposes of annualizing other expenses of the Fund, professional fees and reports to stockholders are fees associated with the annual audit and annual report and therefore have not been annualized.

(11) Calculated pursuant to section 18(a)(1)(A) of the 1940 Act. Represents the value of total assets less all liabilities not represented by Senior Notes or any other senior securities representing indebtedness and mandatory redeemable preferred stock divided by the aggregate amount of Senior Notes and any other senior securities representing indebtedness. Under the 1940 Act, the Fund may not declare or make any distribution on its common stock nor can it incur additional indebtedness if at the time of such declaration or incurrence its asset coverage with respect to senior securities representing indebtedness would be less than 300%. For purposes of this test, the Credit Facility is considered a senior security representing indebtedness.

(12) Calculated pursuant to section 18(a)(2)(A) of the 1940 Act. Represents the value of total assets less all liabilities not represented by Senior Notes, any other senior securities representing indebtedness and preferred stock divided by the aggregate amount of Senior Notes, any other senior securities representing indebtedness and preferred stock. Under the 1940 Act, the Fund may not declare or make any distribution on its common stock nor can it issue additional preferred stock if at the time of such declaration or issuance, its asset coverage with respect to all senior securities would be less than 200%. In addition to the limitations under the 1940 Act, the Fund, under the terms of its mandatory redeemable preferred stock, would not be able to declare or pay any distributions on its common stock if such declaration would cause its asset coverage with respect to all senior securities to be less than 225%. For purposes of these asset coverage ratio tests, the Credit Facility is considered a senior security representing indebtedness.

See accompanying notes to financial statements.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

NOTES TO FINANCIAL STATEMENTS

(amount in 000 s, except number of option contracts, share and per share)

1. Organization

Kayne Anderson Midstream/Energy Fund, Inc. (the Fund) was organized as a Maryland corporation on August 26, 2010 and commenced operations on November 24, 2010. The Fund is registered under the Investment Company Act of 1940, as amended (the 1940 Act), as a non-diversified, closed-end investment management company. The Fund s investment objective is to provide a high level of return with an emphasis on making quarterly cash distributions to its stockholders. The Fund seeks to achieve that investment objective by investing at least 80% of its total assets in the securities of companies in the Midstream/Energy Sector, consisting of (a) Midstream MLPs, (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies. The Fund s shares of common stock are listed on the New York Stock Exchange, Inc. (NYSE) under the symbol KMF.

2. Significant Accounting Policies

A. *Use of Estimates* The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ materially from those estimates.

B. *Cash and Cash Equivalents* Cash and cash equivalents include short-term, liquid investments with an original maturity of three months or less and include money market fund accounts.

C. *Calculation of Net Asset Value* The Fund determines its net asset value no less frequently than as of the last day of each month based on the most recent close of regular session trading on the NYSE, and makes its net asset value available for publication monthly. Currently, the Fund calculates its net asset value on a weekly basis. Net asset value is computed by dividing the value of the Fund s assets (including accrued interest and distributions), less all of its liabilities (including accrued expenses, distributions payable and any indebtedness) and the liquidated value of any outstanding preferred stock, by the total number of common shares outstanding.

D. *Investment Valuation* Readily marketable portfolio securities listed on any exchange other than the NASDAQ Stock Market, Inc. (NASDAQ) are valued, except as indicated below, at the last sale price on the business day as of which such value is being determined. If there has been no sale on such day, the securities are valued at the mean of the most recent bid and ask prices on such day. Securities admitted to trade on the NASDAQ are valued at the NASDAQ official closing price. Portfolio securities traded on more than one securities exchange are valued at the last sale price on the business day as of which such value is being determined at the close of the exchange representing the principal market for such securities.

Equity securities traded in the over-the-counter market, but excluding securities admitted to trading on the NASDAQ, are valued at the closing bid prices. Debt securities that are considered bonds are valued by using the mean of the bid and ask prices provided by an independent pricing service. For debt securities that are considered bank loans, the fair market value is determined by using the mean of the bid and ask prices provided by the agent or syndicate bank or principal market maker. When price quotes are not available, fair market value will be based on prices of comparable securities. In certain cases, the Fund may not be able to purchase or sell debt securities at the quoted prices due to the lack of liquidity for these securities.

Exchange-traded options and futures contracts are valued at the last sales price at the close of trading in the market where such contracts are principally traded or, if there was no sale on the applicable exchange on such day, at the mean between the quoted bid and ask price as of the close of such exchange.

The Fund holds securities that are privately issued or otherwise restricted as to resale. For these securities, as well as any other portfolio security held by the Fund for which reliable market quotations are not readily

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

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(amount in 000 s, except number of option contracts, share and per share)

available, valuations are determined in a manner that most accurately reflects fair value of the security on the valuation date. Unless otherwise determined by the Board of Directors, the following valuation process is used for such securities:

Investment Team Valuation. The applicable investments are valued by senior professionals of KA Fund Advisors, LLC (KAFA or the Adviser) who are responsible for the portfolio investments. The investments will be valued monthly, with new investments valued at the time such investment was made.

Investment Team Valuation Documentation. Preliminary valuation conclusions will be determined by senior management of KAFA. Such valuations and supporting documentation is submitted to the Valuation Committee (a committee of the Fund s Board of Directors) and the Board of Directors on a quarterly basis.

Valuation Committee. The Valuation Committee meets to consider the valuations submitted by KAFA at the end of each quarter. Between meetings of the Valuation Committee, a senior officer of KAFA is authorized to make valuation determinations. All valuation determinations of the Valuation Committee are subject to ratification by the Board of Directors at its next regular meeting.

Valuation Firm. Quarterly, a third-party valuation firm engaged by the Board of Directors reviews the valuation methodologies and calculations employed for these securities.

Board of Directors Determination. The Board of Directors meets quarterly to consider the valuations provided by KAFA and the Valuation Committee and ratify valuations for the applicable securities. The Board of Directors considers the report provided by the third-party valuation firm in reviewing and determining in good faith the fair value of the applicable portfolio securities.

As of November 30, 2013, the Fund held 5.7% of its net assets applicable to common stockholders (4.0% of total assets) in securities that were fair valued pursuant to the procedures adopted by the Board of Directors. The aggregate fair value of these securities at November 30, 2013 was $45,096. See Note 3 Fair Value and Note 7 Restricted Securities.

E. *Repurchase Agreements* From time to time, the Fund has agreed to purchase securities from financial institutions subject to the seller s agreement to repurchase them at an agreed-upon time and price (repurchase agreements). The financial institutions with whom the Fund enters into repurchase agreements are banks and broker/dealers which KAFA considers creditworthy. The seller under a repurchase agreement is required to maintain the value of the securities as collateral, subject to the agreement, at not less than the repurchase price plus accrued interest. KAFA monitors daily the mark-to-market of the value of the collateral, and, if necessary, requires the seller to maintain additional securities, so that the value of the collateral is not less than the repurchase price. Default by or bankruptcy of the seller would, however, expose the Fund to possible loss because of adverse market action or delays in connection with the disposition of the underlying securities. As of November 30, 2013, the Fund did not have any repurchase agreements.

F. *Short Sales* A short sale is a transaction in which the Fund sells securities it does not own (but has borrowed) in anticipation of or to hedge against a decline in the market price of the securities. To complete a short sale, the Fund may arrange through a broker to borrow the securities to be delivered to the buyer. The proceeds received by the Fund for the short sale are retained by the broker until the Fund replaces the borrowed securities. In borrowing the securities to be delivered to the buyer, the Fund becomes obligated to replace the securities borrowed at their market price at the time of replacement, whatever the price may be.

The Fund s short sales, if any, are fully collateralized. The Fund is required to maintain assets consisting of cash or liquid securities equal in amount to the liability created by the short sale. These assets are adjusted daily

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

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(amount in 000 s, except number of option contracts, share and per share)

to reflect changes in the value of the securities sold short. The Fund is liable for any dividends or distributions paid on securities sold short.

The Fund may also sell short against the box (*i.e.*, the Fund enters into a short sale as described above while holding an offsetting long position in the security which it sold short). If the Fund enters into a short sale against the box, the Fund would segregate an equivalent amount of securities owned as collateral while the short sale is outstanding. During the fiscal year ended November 30, 2013, the Fund did not engage in any short sales.

G. *Derivative Financial Instruments* The Fund may utilize derivative financial instruments in its operations.

Interest rate swap contracts. The Fund may use hedging techniques such as interest rate swaps to mitigate potential interest rate risk on a portion of the Fund s leverage. Such interest rate swaps would principally be used to protect the Fund against higher costs on its leverage resulting from increases in interest rates. The Fund does not hedge any interest rate risk associated with portfolio holdings. Interest rate transactions the Fund uses for hedging purposes expose it to certain risks that differ from the risks associated with its portfolio holdings. A decline in interest rates may result in a decline in the value of the swap contracts, which, everything else being held constant, would result in a decline in the net assets of the Fund. In addition, if the counterparty to an interest rate swap defaults, the Fund would not be able to use the anticipated net receipts under the interest rate swap to offset its cost of financial leverage.

Interest rate swap contracts are recorded at fair value with changes in value during the reporting period, and amounts accrued under the agreements, included as unrealized gains or losses in the Statement of Operations. Monthly cash settlements under the terms of the interest rate swap agreements or termination payments are recorded as realized gains or losses in the Statement of Operations. The Fund generally values its interest rate swap contracts based on dealer quotations, if available, or by discounting the future cash flows from the stated terms of the interest rate swap agreement by using interest rates currently available in the market. See Note 8 Derivative Financial Instruments.

Option contracts. The Fund is also exposed to financial market risks including changes in the valuations of its investment portfolio. The Fund may purchase or write (sell) call options. A call option on a security is a contract that gives the holder of the option, in return for a premium, the right to buy from the writer of the option the security underlying the option at a specified exercise price at any time during the term of the option.

The Fund would realize a gain on a purchased call option if, during the option period, the value of such securities exceeded the sum of the exercise price, the premium paid and transaction costs; otherwise the Fund would realize either no gain or a loss on the purchased call option. The Fund may also purchase put option contracts. If a purchased put option is exercised, the premium paid increases the cost basis of the securities sold by the Fund.

The Fund may also write (sell) call options with the purpose of generating realized gains or reducing its ownership of certain securities. If the Fund writes a call option on a security, the Fund has the obligation upon exercise of the option to deliver the underlying security upon payment of the exercise price. The Fund will only write call options on securities that the Fund holds in its portfolio (*i.e.*, covered calls).

When the Fund writes a call option, an amount equal to the premium received by the Fund is recorded as a liability and is subsequently adjusted to the current fair value of the option written. Premiums received from writing options that expire unexercised are treated by the Fund on the expiration date as realized gains from investments. If the Fund repurchases a written call option prior to its exercise, the difference between the premium received and the amount paid to repurchase the option is treated as a realized gain or loss. If a call option is exercised, the premium is added to the proceeds from the sale of the underlying security in determining whether the Fund has realized a gain or loss. The Fund, as the writer of an option, bears the market risk of an unfavorable change in the price of the security underlying the written option. See Note 8 Derivative Financial Instruments.

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H. *Security Transactions* Security transactions are accounted for on the date these securities are purchased or sold (trade date). Realized gains and losses are reported on an identified cost basis.

I. *Return of Capital Estimates* Dividends and distributions received from the Fund s investments are comprised of income and return of capital. The payments made by MLPs are categorized as distributions and payments made by corporations are categorized as dividends. At the time such dividends and distributions are received, the Fund estimates the amount of such payments that is considered investment income and the amount that is considered a return of capital. The Fund estimates that 90% of the MLP distributions received will be treated as a return of capital. Such estimates for MLPs and other investments are based on historical information available from each investment and other industry sources. These estimates may subsequently be revised based on information received from investments after their tax reporting periods are concluded.

The following table sets forth (i) the components of total dividends and distributions, (ii) the percentage of return of capital attributable to each category and (iii) the estimated total return of capital portion of the dividends and distributions received that are attributable to net realized gains (losses) and net change in unrealized gains (losses). The return of capital portion of the dividends and distributions received is a reduction to investment income, results in an equivalent reduction in the cost basis of the associated investments, and increases net realized gains (losses) and net change in unrealized gains (losses). In accordance with GAAP, the return of capital cost basis reductions for the Fund s MLP investments are limited to the total amount of the cash distributions received from such investments. For income tax purposes, the cost basis reductions for the Fund s MLP investments typically exceed cash distributions received from such investments due to allocated losses from these investments.

	Fiscal Year Ended November 30, 2013
Dividends from investments	$ 22,134
Distributions from investments	17,286
Total dividends and distributions from investments (before foreign taxes withheld of $264)	$ 39,420
Dividends % return of capital	33%
Distributions % return of capital	96%
Total dividends and distributions % return of capital	60%
Return of capital attributable to net realized gains (losses)	$ 6,811
Return of capital attributable to net change in unrealized gains (losses)	17,029
Total return of capital	$ 23,840

For the fiscal year ended November 30, 2013, the Fund estimated the return of capital portion of distributions received to be $21,505 (55%). This amount was increased by $2,335 due to 2012 tax reporting information received by the Fund in fiscal 2013. As a result, the total return of capital percentage for the fiscal year ended November 30, 2013 was 60%.

J. *Investment Income* The Fund records dividends and distributions on the ex-dividend date. Interest income is recognized on the accrual basis, including amortization of premiums and accretion of discounts. When investing in securities with payment in-kind interest, the Fund will accrue interest income during the life of the security even though it will not be receiving cash as the interest is accrued. To the extent that interest income to

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be received is not expected to be realized, a reserve against income is established. During the fiscal year ended November 30, 2013, the Fund did not have a reserve against interest income, since all interest income accrued is expected to be received.

Many of the debt securities that the Fund holds were purchased at a discount or premium to the par value of the security. The non-cash accretion of a discount to par value increases interest income while the non-cash amortization of a premium to par value decreases interest income. The accretion of a discount and amortization of a premium are based on the effective interest method. The amount of these non-cash adjustments can be found in the Fund s Statement of Cash Flows. The non-cash accretion of a discount increases the cost basis of the debt security, which results in an offsetting unrealized loss. The non-cash amortization of a premium decreases the cost basis of the debt security, which results in an offsetting unrealized gain. To the extent that par value is not expected to be realized, the Fund discontinues accruing the non-cash accretion of the discount to par value of the debt security.

The Fund receives paid-in-kind and non-cash dividends and distributions in the form of additional units or shares from the investments listed in the table below. For paid-in-kind dividends/distributions, the additional units are not reflected in investment income during the period received but are recorded as unrealized gains upon receipt. Non-cash dividends/distributions are reflected in investment income because the Fund has the option to receive its dividend in cash or in additional shares/units of the security. During the fiscal year ended November 30, 2013, the Fund received the following paid-in-kind and non-cash dividends and distributions.

	Fiscal Year Ended November 30, 2013
Paid-in-kind dividends/distributions	
Buckeye Partners, L.P. (Class B Units)[(1)]	$ 994
Crestwood Midstream Partners LP (Class C Units)[(2)]	94
Enbridge Energy Management, L.L.C.	4,082
Kinder Morgan Management, LLC	4,898
	10,068
Non-cash dividends/distributions	
Energy Transfer Partners, L.P.	364
Enterprise Products Partners L.P.	445
Pembina Pipeline Corporation	166
	975
Total paid-in-kind and non-cash dividends/distributions	$ 11,043

(1) Converted into common units on September 1, 2013.

(2) Converted into common units on April 1, 2013.

K. *Distributions to Stockholders* Distributions to common stockholders are recorded on the ex-dividend date. Distributions to mandatory redeemable preferred stockholders are accrued on a daily basis as described in Note 12 Preferred Stock. As required by the Distinguishing

Liabilities from Equity topic of the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC 480), the Fund includes the accrued distributions on its mandatory redeemable preferred stock as an operating expense due to the fixed term of this obligation. For tax purposes the payments made to the holders of the Fund s mandatory redeemable preferred stock are treated as dividends or distributions.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

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The estimated characterization of the distributions paid to preferred and common stockholders will be either a dividend (ordinary income) or distribution (long-term capital gains or return of capital). This estimate is based on the Fund s operating results during the period. The actual characterization of the stock distributions made during the current year will not be determinable until after the end of the fiscal year when the Fund can determine earnings and profits and, therefore, the characterization may differ from the preliminary estimates.

L. *Partnership Accounting Policy* The Fund records its pro-rata share of the income (loss) and capital gains (losses), to the extent of distributions it has received, allocated from the underlying partnerships and adjusts the cost basis of the underlying partnerships accordingly. These amounts are included in the Fund s Statement of Operations.

M. *Taxes* It is the Fund s intention to continue to be treated as and to qualify each year for special tax treatment afforded a regulated investment company (RIC) under Subchapter M of the Internal Revenue Code of 1986, as amended. As long as the Fund meets certain requirements that govern its source of income, diversification of assets and timely distribution of earnings to stockholders, the Fund will not be subject to U.S. federal income tax. See Note 6 Taxes.

All RICs are subject to a non-deductible 4% excise tax on income that is not distributed on a timely basis in accordance with the calendar year distribution requirements. To avoid the tax, the Fund must distribute during each calendar year an amount at least equal to the sum of (i) 98% of its ordinary income for the calendar year, (ii) 98.2% of its net capital gains for the one-year period ending on November 30, the last day of our taxable year, and (iii) undistributed amounts from previous years on which the Fund paid no U.S. federal income tax. A distribution will be treated as paid during the calendar year if it is paid during the calendar year or declared by the Fund in October, November or December of the year, payable to stockholders of record on a date during such a month and paid by the Fund during January of the following year. Any such distributions paid during January of the following year will be deemed to be received by stockholders on December 31 of the year the distributions are declared, rather than when the distributions are actually received.

There can be no assurance that sufficient amounts of the Fund s taxable income and capital gains will be distributed in future periods to avoid the imposition of the 4% excise tax. In that event, the Fund will be liable for the excise tax on the amount by which it does not meet the distribution requirement and will accrue an excise tax liability at the time that the liability is estimable and probable. In each of the past two years, the Board of Directors has determined not to make a special distribution of income in order to avoid the excise tax. As a result, the Fund incurred $1,160 in excise taxes during fiscal 2013, of which $410 was attributable to 2012 and $750 was attributable to 2013. See Note 6 Taxes.

Dividend income received by the Fund from sources within Canada is subject to a 15% foreign withholding tax. Interest income on Canadian corporate obligations may be subject to a 10% withholding tax unless an exemption is met. The most common exemption available is for corporate bonds that have a tenor of at least 5 years, provided that not more than 25% of the principal is repayable in the first 5 years and provided that the borrower and lender are not associated. Further, interest is exempt if derived from debt obligations guaranteed by the Canadian government.

The Accounting for Uncertainty in Income Taxes Topic of the FASB Accounting Standards Codification (ASC 740) defines the threshold for recognizing the benefits of tax-return positions in the financial statements as more-likely-than-not to be sustained by the taxing authority and requires measurement of a tax position meeting the more-likely-than-not criterion, based on the largest benefit that is more than 50% likely to be realized.

The Fund s policy is to classify interest and penalties associated with underpayment of federal and state income taxes, if any, as income tax expense on its Statement of Operations. For the fiscal year ended November 30, 2013, the Fund did not have any interest or penalties associated with the underpayment of any income taxes. All tax years since inception remain open and subject to examination by federal and state tax authorities.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

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N. *Foreign Currency Translations* The books and records of the Fund are maintained in U.S. dollars. Foreign currency amounts are translated into U.S. dollars on the following basis: (i) market value of investment securities, assets and liabilities at the rate of exchange as of the valuation date; and (ii) purchases and sales of investment securities, income and expenses at the relevant rates of exchange prevailing on the respective dates of such transactions.

The Fund does not isolate that portion of gains and losses on investments in equity and debt securities which is due to changes in the foreign exchange rates from that which is due to changes in market prices of equity and debt securities. Accordingly, realized and unrealized foreign currency gains and losses with respect to such securities are included in the reported net realized and unrealized gains and losses on investment transactions balances.

Net realized foreign exchange gains or losses represent gains and losses from transactions in foreign currencies and foreign currency contracts, foreign exchange gains or losses realized between the trade date and settlement date on security transactions, and the difference between the amounts of interest and dividends recorded on the Fund s books and the U.S. dollar equivalent of such amounts on the payment date.

Net unrealized foreign exchange gains or losses represent the difference between the cost of assets and liabilities (other than investments) recorded on the Fund s books from the value of the assets and liabilities (other than investments) on the valuation date.

O. *Indemnifications* Under the Fund s organizational documents, its officers and directors are indemnified against certain liabilities arising out of the performance of their duties to the Fund. In addition, in the normal course of business, the Fund enters into contracts that provide general indemnification to other parties. The Fund s maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the Fund that have not yet occurred, and may not occur. However, the Fund has not had prior claims or losses pursuant to these contracts and expects the risk of loss to be remote.

3. Fair Value

The Fair Value Measurement Topic of the FASB Accounting Standards Codification (ASC 820) defines fair value as the price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants under current market conditions at the measurement date. As required by ASC 820, the Fund has performed an analysis of all assets and liabilities measured at fair value to determine the significance and character of all inputs to their fair value determination. Inputs are the assumptions, along with considerations of risk, that a market participant would use to value an asset or a liability. In general, observable inputs are based on market data that is readily available, regularly distributed and verifiable that the Fund obtains from independent, third-party sources. Unobservable inputs are developed by the Fund based on its own assumptions of how market participants would value an asset or a liability.

Accounting Standards Update (ASU) No. 2011-04 Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs amends ASC 820. The amended guidance clarifies the wording used to describe many requirements in accounting literature for fair value measurement and disclosure to establish consistency between U.S. GAAP and International Financial Reporting Standards (IFRSs).

ASU No. 2011-04 requires the inclusion of additional disclosures on assumptions used by the Fund to determine fair value. Specifically, for assets measured at fair value using significant unobservable inputs (Level 3), ASU No. 2011-04 requires that the Fund (i) describe the valuation process, (ii) disclose quantitative information about unobservable inputs and (iii) provide a qualitative discussion about the sensitivity of the fair value measurement to changes in the unobservable inputs and inter-relationships between the inputs.

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The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into the following three broad categories.

Level 1 Valuations based on quoted unadjusted prices for identical instruments in active markets traded on a national exchange to which the Fund has access at the date of measurement.

Level 2 Valuations based on quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets. Level 2 inputs are those in markets for which there are few transactions, the prices are not current, little public information exists or instances where prices vary substantially over time or among brokered market makers.

Level 3 Model derived valuations in which one or more significant inputs or significant value drivers are unobservable. Unobservable inputs are those inputs that reflect the Fund s own assumptions that market participants would use to price the asset or liability based on the best available information.

The following table presents the Fund s assets and liabilities measured at fair value on a recurring basis at November 30, 2013, and the Fund presents these assets by security type and description on its Schedule of Investments or on its Statement of Assets and Liabilities. Note that the valuation levels below are not necessarily an indication of the risk or liquidity associated with the underlying investment.

	Total	Quoted Prices in Active Markets (Level 1)	Prices with Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets at Fair Value				
Equity investments	$ 975,120	$ 930,024	$	$ 45,096
Debt investments	130,534		130,534	
Total assets at fair value	$ 1,105,654	$ 930,024	$ 130,534	$ 45,096
Liabilities at Fair Value				
Call option contracts written	$ 1,937	$	$ 1,937	$

For the fiscal year ended November 30, 2013, there were no transfers between Level 1 and Level 2.

As of November 30, 2013, the Fund had senior unsecured notes (Senior Notes) outstanding with aggregate principal amount of $205,000 and 2,600,000 shares of mandatory redeemable preferred stock outstanding with a total liquidation value of $65,000. The Senior Notes and mandatory redeemable preferred stock were issued in private placements to institutional investors and are not listed on any exchange or automated quotation system. See Note 11 Senior Unsecured Notes and Note 12 Preferred Stock. As a result, the Fund categorizes the Senior Notes and mandatory redeemable preferred stock as Level 3 and determines the fair value of these instruments based on estimated market yields and credit spreads for comparable instruments with similar maturity, terms and structure.

The Fund records these securities on its Statement of Assets and Liabilities at principal amount or liquidation value. As of November 30, 2013, the estimated fair values of these leverage instruments are as follows.

Security	Principal Amount/ Liquidation Value	Fair Value
Senior Notes	$ 205,000	$ 212,000
Mandatory redeemable preferred stock	$ 65,000	$ 68,300

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The following table presents the Fund s assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the fiscal year ended November 30, 2013.

	Equity Investments
Balance November 30, 2012	$ 34,937
Purchases	9,000
Issuances	1,088
Transfers out to Level 1	(23,966)
Realized gains (losses)	
Unrealized gains, net	24,037
Balance November 30, 2013	$ 45,096

The $24,037 of unrealized gains presented in the table above for the fiscal year ended November 30, 2013 relate to investments that were still held at November 30, 2013, and the Fund includes these unrealized gains on the Statement of Operations Net Change in Unrealized Gains.

The purchases of $9,000 for the fiscal year ended November 30, 2013 relate to the Fund s investment in Capital Products Partners L.P. (Class B Units) and Inergy Midstream, L.P. (Common Units). The issuances of $1,088 for the fiscal year ended November 30, 2013 relate to additional units received from Buckeye Partners, L.P. (Class B Units) and Crestwood Midstream Partners LP (Class C Units). The transfers out of $23,966 for the fiscal year ended November 30, 2013 relate to the Fund s investments in Buckeye Partners, L.P. (Class B Units), Crestwood Midstream Partners LP (Class C Units) and Inergy Midstream, L.P. (Common Units) that became marketable during fiscal 2013.

Valuation Techniques and Unobservable Inputs

Unless otherwise determined by the Board of Directors, the Fund values its private investments in public equity (PIPE) investments that are convertible into or otherwise will become publicly-tradeable (*e.g.,* through subsequent registration or expiration of a restriction on trading) based on the market value of the publicly-traded security less a discount. This discount is initially equal to the discount negotiated at the time the Fund agrees to a purchase price. To the extent that such securities are convertible or otherwise become publicly traded within a time frame that may be reasonably determined, this discount will be amortized on a straight line basis over such estimated time frame.

Beginning in the fiscal fourth quarter, the Fund s investment in Plains All American GP LLC (PAA GP), which controls the general partner of Plains All American, L.P., is valued as a PIPE investment. This is due to the recent initial public offering (IPO) of Plains GP Holdings, L.P. (Plains GP) as the Fund s ownership of PAA GP is exchangeable into shares of Plains GP on a one-for-one basis at the Fund s option. Plains GP completed its IPO in October 2013 and as part of such offering, the Fund agreed to a 15-month lock-up on any Plains GP shares it receives in exchange for its ownership in PAA GP (lock-up expires in January 2015). During the 15-month lock-up period, the Fund is valuing its investment in PAA GP on an as exchanged basis based on the public market value of Plains GP less a discount because of the lack of liquidity. In addition, the Fund is entitled to a prorated distribution with respect of the portion of the fourth calendar quarter of 2013 that Plains GP was not public. Because this distribution is not reflected in the public market value of Plains GP, the Fund is increasing the value of its investment in PAA GP by the estimated amount of this distribution until it is paid in February 2014.

One of the Fund s private investments is Class B Units of Capital Product Partners L.P. (CPLP). The Class B Units are convertible units (convertible on a one-for-one basis into common units) and are senior to CPLP s common units in terms of liquidation preference and priority of distributions. The Fund s Board of

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Directors has determined that it is appropriate to value the Class B Units using a convertible pricing model, which takes into account the unit s preference relative to the common units as well as its conversion features. This model takes into account the attributes of the Class B Units (preferred dividend, conversion ratio and call features) to determine the estimated value of such units. In using this model, the Fund estimates (i) the credit spread for CPLP s Class B Units, which is based on credit spreads for companies in a similar line of business as CPLP and (ii) the expected volatility for CPLP s common units, which is based on CPLP s historical volatility. The Fund applies a discount to the value derived from the convertible pricing model to account for an expected discount in market prices for convertible securities relative to the values calculated using pricing models.

Due to the inherent uncertainty of determining the fair value of investments that do not have a readily available market value, the fair value of the Fund s investments may fluctuate from period to period. Additionally, the fair value of the Fund s investments may differ from the values that would have been used had a ready market existed for such investments and may differ materially from the values that the Fund may ultimately realize.

The following table summarizes the significant unobservable inputs that the Fund uses to value its portfolio investments categorized as Level 3 as of November 30, 2013:

Quantitative Table for Valuation Techniques

				Range		
Assets at Fair Value	**Fair Value**	**Valuation Technique**	**Unobservable Inputs**	**Low**	**High**	**Average**
Equity securities of public companies (PIPE) valued based on a discount to market value	$ 39,320	- Discount to publicly-traded securities	- Current discount	9.0%	9.0%	9.0%
			- Remaining restricted period	417 days	417 days	417 days
Equity securities of public companies not valued based on a discount to market value	5,776	- Convertible pricing model	- Credit spread	7.0%	8.0%	7.5%
			- Volatility	27.5%	32.5%	30.0%
			- Discount for marketability	8.0%	8.0%	8.0%
Total	$ 45,096					

4. Concentration of Risk

The Fund s investments are concentrated in the energy sector. The focus of the Fund s portfolio within the energy sector may present more risks than if the Fund s portfolio were broadly diversified across numerous sectors of the economy. A downturn in the energy sector would have a larger impact on the Fund than on an investment company that does not concentrate in energy. The performance of securities in the energy sector may lag the performance of other industries or the broader market as a whole. Additionally, to the extent that the Fund invests a relatively high percentage of its assets in the securities of a limited number of issuers, the Fund may be more susceptible than a more widely diversified investment company to any single economic, political or regulatory occurrence. At November 30, 2013, the Fund had the following investment concentrations.

Category	**Percent of Total Assets**
Securities of energy companies	97.8%
Equity securities	87.0%
Debt securities	11.6%
MLP securities	24.3%
Largest single issuer	7.6%
Restricted securities	8.9%

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5. Agreements and Affiliations

A. *Administration Agreement* The Fund has an administration and accounting agreement with Ultimus Fund Solutions, LLC (Ultimus) that may be amended from time to time. Pursuant to the agreement, Ultimus will provide certain administrative and accounting services for the Fund. The agreement has an initial term of two years (expiring on November 14, 2015) and has automatic one-year renewals unless earlier terminated by either party as provided under the terms of the agreement.

B. *Investment Management Agreement* The Fund has entered into an investment management agreement with KAFA under which KAFA, subject to the overall supervision of the Fund s Board of Directors, manages the day-to-day operations of, and provides investment advisory services to, the Fund. For providing these services, KAFA receives an investment management fee from the Fund. On September 25, 2013, the Fund renewed its agreement with KAFA for a period of one year, which expires on October 19, 2014. The agreement may be renewed annually upon the approval of the Fund s Board of Directors (including a majority of the Fund s directors who are not interested persons of the Fund, as such term is defined in the 1940 Act). For the fiscal year ended November 30, 2013, the Fund paid management fees at an annual rate of 1.25% of the average monthly total assets of the Fund.

For purposes of calculating the management fee, the average total assets for each monthly period are determined by averaging the total assets at the last business day of that month with the total assets at the last business day of the prior month. The total assets of the Fund shall be equal to its average monthly gross asset value (which includes assets attributable to the Fund s use of debt and preferred stock, minus the sum of the Fund s accrued and unpaid dividends and distributions on any outstanding common stock and accrued and unpaid dividends and distributions on any outstanding preferred stock and accrued liabilities (other than liabilities associated with borrowing or leverage by the Fund). Liabilities associated with borrowing or leverage include the principal amount of any debt issued by the Fund, the liquidation preference of any outstanding preferred stock, and other liabilities from other forms of borrowing or leverage such as short positions and put or call options held or written by the Fund.

C. *Portfolio Companies* From time to time, the Fund may control or may be an affiliate of one or more of its portfolio companies, as each of these terms is defined in the 1940 Act. In general, under the 1940 Act, the Fund would be presumed to control a portfolio company if the Fund and its affiliates owned 25% or more of its outstanding voting securities and would be an affiliate of a portfolio company if the Fund and its affiliates owned 5% or more of its outstanding voting securities. The 1940 Act contains prohibitions and restrictions relating to transactions between investment companies and their affiliates (including the Fund s investment adviser), principal underwriters and affiliates of those affiliates or underwriters.

The Fund believes that there are several factors that determine whether or not a security should be considered a voting security in complex structures such as limited partnerships of the kind in which the Fund invests. The Fund also notes that the Securities and Exchange Commission (the SEC) staff has issued guidance on the circumstances under which it would consider a limited partnership interest to constitute a voting security. Under most partnership agreements, the management of the partnership is vested in the general partner, and the limited partners, individually or collectively, have no rights to manage or influence management of the partnership through such activities as participating in the selection of the managers or the board of the limited partnership or the general partner. As a result, the Fund believes that many of the limited partnership interests in which it invests should not be considered voting securities. However, it is possible that the SEC staff may consider the limited partner interests the Fund holds in certain limited partnerships to be voting securities. If such a determination were made, the Fund may be regarded as a person affiliated with and controlling the issuer(s) of those securities for purposes of Section 17 of the 1940 Act.

In making such a determination as to whether to treat any class of limited partnership interests the Fund holds as a voting security, the Fund considers, among other factors, whether or not the holders of such limited partnership interests have the right to elect the board of directors of the limited partnership or the general partner. If the holders of such limited partnership interests do not have the right to elect the board of directors, the Fund generally has not

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treated such security as a voting security. In other circumstances, based on the facts and circumstances of those partnership agreements, including the right to elect the directors of the general partner, the Fund has treated those securities as voting securities. If the Fund does not consider the security to be a voting security, it will not consider such partnership to be an affiliate unless the Fund and its affiliates own more than 25% of the outstanding securities of such partnership. Additionally, certain partnership agreements give common unitholders the right to elect its board of directors, but limit the amount of voting securities any limited partner can hold to no more than 4.9% of the partnership s outstanding voting securities (i.e., any amounts held in excess of such limit by a limited partner do not have voting rights). In such instances, the Fund does not consider itself to be an affiliate if it owns more than 5% of such partnership s common units.

There is no assurance that the SEC staff will not consider that other limited partnership securities that the Fund owns and does not treat as voting securities are, in fact, voting securities for the purposes of Section 17 of the 1940 Act. If such determination were made, the Fund will be required to abide by the restrictions on control or affiliate transactions as proscribed in the 1940 Act. The Fund or any portfolio company that it controls, and its affiliates, may from time to time engage in certain of such joint transactions, purchases, sales and loans in reliance upon and in compliance with the conditions of certain exemptive rules promulgated by the SEC. The Fund cannot make assurances, however, that it would be able to satisfy the conditions of these rules with respect to any particular eligible transaction, or even if the Fund were allowed to engage in such a transaction, that the terms would be more or as favorable to the Fund or any company that it controls as those that could be obtained in arm s length transaction. As a result of these prohibitions, restrictions may be imposed on the size of positions that may be taken for the Fund or on the type of investments that it could make.

As of November 30, 2013, the Fund believes that MarkWest Energy Partners, L.P. meets the criteria described above and is therefore considered an affiliate of the Fund.

Plains GP Holdings, L.P., Plains All American GP LLC and Plains All American Pipeline, L.P. Robert V. Sinnott is Chief Executive Officer of Kayne Anderson Capital Advisors, L.P. (KACALP), the managing member of KAFA. Mr. Sinnott also serves as a director of (i) PAA GP Holdings LLC, which is the general partner of Plains GP Holdings, L.P. (Plains GP) and (ii) Plains All American GP LLC (PAA GP), which controls the general partner of Plains All American Pipeline, L.P. (PAA). Members of senior management of KACALP and KAFA, various affiliated funds managed by KACALP, including the Fund, own shares of Plains GP as well as interests in PAA GP (which is exchangeable into shares of Plains GP as described in Note 3 Fair Value). The Fund believes that it is an affiliate of Plains GP and PAA under the 1940 Act by virtue of (i) the Fund s and other affiliated Kayne Anderson funds ownership interest in Plains GP and PAA GP and (ii) Mr. Sinnott s participation on the boards of Plains GP and PAA GP.

6. Taxes

Income and capital gain distributions made by RICs often differ from GAAP basis net investment income (loss) and any net realized gains (losses). For the Fund, the principal reason for these differences is the return of capital treatment of dividends and distributions from MLPs and certain other of its investments. Net investment income and net realized gains for GAAP purposes may differ from taxable income for federal income tax purposes due to wash sales, disallowed partnership losses from MLPs and foreign currency transactions.

As of November 30, 2013, the principal temporary differences were (a) realized losses that were recognized for book purposes, but disallowed for tax purposes due to wash sale rules; (b) disallowed partnership losses related to the Fund s MLP investments; and (c) other basis adjustments in the Fund s MLPs and other investments. For purposes of characterizing the nature of the dividends/distributions to investors, the amounts in excess of the Fund s earnings and profits for federal income tax purposes are treated as a return of capital. Earnings and profits differ from taxable income due principally to adjustments related to the Fund s investments in MLPs.

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During the fiscal year ended November 30, 2013, the Fund reclassified $1,244 from paid-in capital to accumulated net investment income and accumulated capital gains primarily due to the permanent differences between GAAP and tax treatment of the amortization of mandatory redeemable preferred stock offering costs and non-deductible excise taxes paid. The Fund also reclassified $2,933 of accumulated realized gains to accumulated net investment income due to permanent differences between GAAP and tax treatment of certain net realized gains.

The tax basis of the components of distributable earnings can differ from the amounts reflected in the Statement of Assets and Liabilities due to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Fund had $28,169 of distributable earnings on a tax basis as of November 30, 2013. The following table sets forth the components of accumulated income on a tax basis for the Fund.

	As of November 30, 2013
Undistributed ordinary income	$ 19,754
Undistributed long-term capital gains	8,415
Capital loss carryforward	
Unrealized appreciation of investments	233,440
Total accumulated income	$ 261,609

For the fiscal year ended November 30, 2013, the tax character of the total $39,680 distributions paid to common stockholders was $25,108 of dividend income and $14,572 of long-term capital gains, and the tax character of the total $3,212 distributions paid to mandatory redeemable preferred stock was $2,007 of dividend income and $1,205 of long-term capital gains.

For the fiscal year ended November 30, 2012, the tax character of the total $37,172 distributions paid to common stockholders was $28,368 of dividend income and $8,804 of long-term capital gains, and the tax character of the total $2,803 distributions paid to mandatory redeemable preferred stock was $2,139 of dividend income and $664 of long-term capital gains.

The Fund is subject to a non-deductible 4% excise tax on income that is not distributed in accordance with the calendar year distribution requirements. See Note 2 Taxes. For the calendar year ended December 31, 2012, the Fund had $9,901 of undistributed income for excise tax purposes. As a result, during the fiscal year ended November 30, 2013, the Fund paid excise taxes of $410 (such excise tax was attributable to the Fund s activities during calendar 2012). As of November 30, 2013, the Fund accrued $750 for excise taxes related to estimated undistributed income of $18,800 for the calendar year ended December 31, 2013 (such excise tax was attributable to the Fund s activities during calendar 2013). In both periods, the Fund s Board of Directors elected not to distribute the Fund s undistributed income and incur this excise tax.

Under the Regulated Investment Company Modernization Act of 2010, any net capital losses recognized after December 31, 2010 may be carried forward indefinitely, and their character is retained as short-term and/or long-term losses. As of November 30, 2013 the Fund had no capital loss carryforwards.

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At November 30, 2013, the cost basis of investments for federal income tax purposes was $872,019, and the net cash received on option contracts written was $1,750. At November 30, 2013, gross unrealized appreciation and depreciation of investments and options for federal income tax purposes were as follows:

Gross unrealized appreciation of investments (including options)	$ 240,570
Gross unrealized depreciation of investments (including options)	(7,121)
Net unrealized appreciation of investments before foreign currency related translations	233,449
Unrealized depreciation on foreign currency related translations	(9)
Net unrealized appreciation of investments	$ 233,440

7. Restricted Securities

From time to time, certain of the Fund s investments may be restricted as to resale. For instance, private investments that are not registered under the Securities Act of 1933, as amended, cannot be offered for public sale in a non-exempt transaction without first being registered. In other cases, certain of the Fund s investments have restrictions such as lock-up agreements that preclude the Fund from offering these securities for public sale.

At November 30, 2013, the Fund held the following restricted investments:

Investment	Acquisition Date	Type of Restriction	Number of Units, Principal ($) (in 000s)	Cost Basis	Fair Value	Fair Value Per Unit	Percent of Net Assets	Percent of Total Assets
Level 3 Investments[1]								
Capital Products Partners L.P.								
Class B Units	(2)	(3)	606	$ 4,525	$ 5,776	$ 9.53	0.7%	0.5%
Plains GP Holdings, L.P.[4]								
Common Units	(2)	(3)	1,836	7,247	39,320	21.41	5.0	3.5
Total				$ 11,772	$ 45,096		5.7%	4.0%
Level 2 Investments[5]								
Senior Notes and Secured Term Loans								
Aurora Oil & Gas Limited	(2)	(3)	$ 9,600	$ 9,694	$ 9,936	n/a	1.3%	0.9%
BlackBrush Oil & Gas, L.P.	(2)	(6)	8,666	8,628	8,753	n/a	1.1	0.8
Clayton Williams Energy, Inc.	9/26/13	(3)	2,000	2,000	2,070	n/a	0.3	0.2
CrownRock, L.P.	(2)	(6)	4,500	4,500	4,590	n/a	0.6	0.4
Diamondback Energy, Inc.	9/12/13	(3)	2,500	2,500	2,625	n/a	0.3	0.2
Rice Drilling B LLC	(2)	(6)	5,577	5,515	5,689	n/a	0.7	0.5
RKI Exploration & Production, LLC	7/15/13	(6)	12,500	12,699	13,125	n/a	1.7	1.2

Sanchez Energy Corporation	(2)	(3)	7,750	7,750	7,963	n/a	1.0	0.7
Total				$ 53,286	$ 54,751		7.0%	4.9%
Total of all restricted securities				$ 65,058	$ 99,847		12.7%	8.9%

(1) Securities are valued using inputs reflecting the Fund s own assumptions as more fully described in Note 2 Significant Accounting Policies and Note 3 Fair Value.

(2) Security was acquired at various dates during the fiscal year ended November 30, 2013 and/or in prior fiscal years.

(3) Unregistered or restricted security of a publicly-traded company.

(4) The Fund holds an interest in PAA GP, which controls the general partner of Plains All American, L.P. The Fund s ownership of PAA GP is exchangeable into shares of Plains GP (which trades on the NYSE under the ticker PAGP) on a one-for-one basis at the Fund s option. See Note 3 Fair Value.

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(5) These securities have a fair market value determined by the mean of the bid and ask prices provided by an agent or a syndicate bank, principal market maker or an independent pricing service as more fully described in Note 2 Significant Accounting Policies. These securities have limited trading volume and are not listed on a national exchange.

(6) Unregistered security of a private company.

8. Derivative Financial Instruments

As required by the Derivatives and Hedging Topic of the FASB Accounting Standards Codification (ASC 815), the following are the derivative instruments and hedging activities of the Fund. The total number of outstanding options at November 30, 2013 is indicative of the volume of this type of option activity during the period. See Note 2 Significant Accounting Policies.

Option Contracts Transactions in option contracts for the fiscal year ended November 30, 2013 were as follows:

	Number of Contracts	Premium
Put Options Purchased		
Options outstanding at November 30, 2012		$
Options purchased	60	1
Options exercised	(60)	(1)
Options outstanding at November 30, 2013		$
Call Options Written		
Options outstanding at November 30, 2012	25,165	$ 2,248
Options written	106,154	10,002
Options subsequently repurchased(1)	(43,149)	(4,093)
Options exercised	(45,392)	(4,636)
Options expired	(23,589)	(1,771)
Options outstanding at November 30, 2013(2)	19,189	$ 1,750

(1) The price at which the Fund subsequently repurchased the options was $1,792, which resulted in net realized gains of $2,301.

(2) The percentage of total investments subject to call options written was 8.8% at November 30, 2013.

Interest Rate Swap Contracts The Fund may enter into interest rate swap contracts to partially hedge itself from increasing expense on its leverage resulting from increasing interest rates. At the time the interest rate swap contracts reach their scheduled termination, there is a risk that the Fund would not be able to obtain a replacement transaction or that the terms of the replacement transaction would not be as favorable as on the expiring transaction. In addition, if the Fund is required to terminate any swap contract early, then the Fund could be required to make a termination payment. As of November 30, 2013, the Fund did not have any interest rate swap contracts outstanding.

During the fiscal second quarter of 2013, the Fund entered into an interest rate swap contract ($40,000 notional amount) in anticipation of a private placement of Senior Notes. On April 17, 2013, the interest rate swap contract was terminated in conjunction with the pricing of the private placement, and resulted in a $385 realized loss.

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The following table sets forth the fair value of the Fund s derivative instruments on the Statement of Assets and Liabilities:

Derivatives Not Accounted for as Hedging Instruments	Statement of Assets and Liabilities Location	Fair Value as of November 30, 2013
Call options	Call option contracts written	$ (1,937)

The following table sets forth the effect of the Fund s derivative instruments on the Statement of Operations:

		For the Fiscal Year Ended November 30, 2013	
Derivatives Not Accounted for as Hedging Instruments	Location of Gains/(Losses) on Derivatives Recognized in Income	Net Realized Gains/(Losses) on Derivatives Recognized in Income	Change in Unrealized Gains/(Losses) on Derivatives Recognized in Income
Call options	Options	$ 4,076	$ 369
Interest rate swap contract	Interest rate swap contract	(385)	
		$ 3,691	$ 369

9. Investment Transactions

For the fiscal year ended November 30, 2013, the Fund purchased and sold securities in the amounts of $534,409 and $501,951 (excluding short-term investments and options).

10. Credit Facility

At November 30, 2013, the Fund had a $105,000 unsecured revolving credit facility (the Credit Facility). On November 21, 2013, the Fund renewed its Credit Facility (scheduled to mature on January 20, 2014) with a syndicate of lenders. The new Credit Facility has a three-year commitment, maturing on November 21, 2016, and the total commitment amount was increased from $100,000 to $105,000. Under the new Credit Facility, the interest rate varies between LIBOR plus 1.50% and LIBOR plus 2.15%, depending on the Fund s asset coverage ratios (prior to the renewal, the interest rate varied between LIBOR plus 1.75% and LIBOR plus 2.25%). The Fund pays a fee of 0.25% per annum on any unused amounts of the new Credit Facility (the fee was 0.35% per annum prior to the renewal). See Financial Highlights for the Fund s asset coverage ratios under the 1940 Act.

For the fiscal year ended November 30, 2013, the average amount outstanding under the Credit Facility was $42,542 with a weighted average interest rate of 2.09%. As of November 30, 2013, the Fund had $50,000 outstanding under the Credit Facility at an interest rate of 1.67%.

11. Senior Unsecured Notes

At November 30, 2013, the Fund had $205,000 aggregate principal amount of Senior Notes outstanding. On May 1, 2013, the Fund completed a private placement with an institutional investor of $40,000 of Senior Notes with an interest rate of 3.34% and a ten-year term. Net proceeds from the private placement were used to repay borrowings under the Fund s Credit Facility, to make additional portfolio investments and for general corporate purposes.

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The table below sets forth the key terms of each series of the Senior Notes at November 30, 2013.

Series	Principal Outstanding, November 30, 2012	Principal Issued	Principal Outstanding, November 30, 2013	Estimated Fair Value November 30, 2013	Fixed Interest Rate	Maturity Date
A	$ 55,000	$	$ 55,000	$ 57,900	3.93%	3/3/16
B	60,000		60,000	65,500	4.62%	3/3/18
C	50,000		50,000	50,800	4.00%	3/22/22
D		40,000	40,000	37,800	3.34%	5/1/23
	$ 165,000	$ 40,000	$ 205,000	$ 212,000		

Holders of the Senior Notes are entitled to receive cash interest payments semi-annually (on September 3 and March 3) at the fixed rate. During the fiscal year ended November 30, 2013, the weighted average interest rate on the outstanding Senior Notes was 4.10%.

As of November 30, 2013, each series of Senior Notes were rate AAA by FitchRatings. In the event the credit rating on any series of Senior Notes falls below A- , the interest rate on such series will increase by 1% during the period of time such series is rated below A- . The Fund is required to maintain a current rating from one rating agency with respect to each series of Senior Notes.

The Senior Notes were issued in private placement offerings to institutional investors and are not listed on any exchange or automated quotation system. The Senior Notes contain various covenants related to other indebtedness, liens and limits on the Fund s overall leverage. Under the 1940 Act and the terms of the Senior Notes, the Fund may not declare dividends or make other distributions on shares of its common stock or make purchases of such shares if, at any time of the declaration, distribution or purchase, asset coverage with respect to the outstanding Senior Notes would be less than 300%.

The Senior Notes are redeemable in certain circumstances at the option of the Fund. The Senior Notes are also subject to a mandatory redemption to the extent needed to satisfy certain requirements if the Fund fails to meet an asset coverage ratio required by law and is not able to cure the coverage deficiency by the applicable deadline, or fails to cure a deficiency as stated in the Fund s rating agency guidelines in a timely manner.

The Senior Notes are unsecured obligations of the Fund and, upon liquidation, dissolution or winding up of the Fund, will rank: (1) senior to all of the Fund s outstanding preferred shares; (2) senior to all of the Fund s outstanding common shares; (3) on a parity with any unsecured creditors of the Fund and any unsecured senior securities representing indebtedness of the Fund; and (4) junior to any secured creditors of the Fund.

At November 30, 2013, the Fund was in compliance with all covenants under the agreements of the Senior Notes.

12. Preferred Stock

At November 30, 2013, the Fund had 2,600,000 shares of mandatory redeemable preferred stock outstanding, with a total liquidation value of $65,000 ($25.00 per share).

The table below sets forth the key terms of each series of the mandatory redeemable preferred stock at November 30, 2013.

Series	**Shares Outstanding, November 30, 2013**	**Liquidation Value November 30, 2013**	**Estimated Fair Value, November 30, 2013**	**Rate**	**Mandatory Redemption Date**
A	1,400,000	$ 35,000	$ 37,700	5.32%	3/3/18
B	1,200,000	30,000	30,600	4.50%	3/22/20
	2,600,000	$ 65,000	$ 68,300		

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Holders of the mandatory redeemable preferred stock are entitled to receive cumulative cash dividend payments on the first business day following each quarterly period (February 28, May 31, August 31 and November 30).

As of November 30, 2013, each series of the Fund s mandatory redeemable preferred stock was rated AA by FitchRatings. The dividend rate on the Fund s mandatory redeemable preferred stock will increase between 0.5% and 4.0% if the credit rating is downgraded below A by FitchRatings. Further, the annual dividend for all series of mandatory redeemable preferred stock rate will increase by 4.0% if no ratings are maintained, and the annual dividend rate will increase by 5.0% if the Fund fails to make quarterly dividend or certain other payments. The Fund is required to maintain a current rating from one rating agency with respect to each series of mandatory redeemable preferred stock.

The mandatory redeemable preferred stock ranks senior to all of the Fund s outstanding common shares and on parity with any other preferred stock. The mandatory redeemable preferred stock is redeemable in certain circumstances at the option of the Fund and is also subject to a mandatory redemption if the Fund fails to meet a total leverage (debt and preferred stock) asset coverage ratio of 225% or fails to maintain its basic maintenance amount as stated in the Fund s rating agency guidelines.

Under the terms of the mandatory redeemable preferred stock, the Fund may not declare dividends or make other distributions on shares of its common stock or make purchases of such shares if, at any time of the declaration, distribution or purchase, asset coverage with respect to total leverage would be less than 225%.

The holders of the mandatory redeemable preferred stock have one vote per share and will vote together with the holders of common stock as a single class except on matters affecting only the holders of mandatory redeemable preferred stock or the holders of common stock. The holders of the mandatory redeemable preferred stock, voting separately as a single class, have the right to elect at least two directors of the Fund.

At November 30, 2013, the Fund was in compliance with the asset coverage and basic maintenance requirements of its mandatory redeemable preferred stock.

13. Common Stock

At November 30, 2013, the Fund had 197,400,000 shares of common stock authorized and 22,044,045 shares outstanding. As of that date, KAFA owned 4,000 shares. Transactions in common shares for the fiscal year ended November 30, 2013 were as follows:

Shares outstanding at November 30, 2012	21,895,242
Shares issued through reinvestment of distributions	148,803
Shares outstanding at November 30, 2013	22,044,045

14. Subsequent Events

On December 19, 2013, the Fund declared its quarterly distribution of $0.465 per common share for the fourth quarter of fiscal 2013 for a total quarterly distribution payment of $10,250. The distribution was paid on January 10, 2014 to common stockholders of record on December 30, 2013. Of this total, pursuant to the Fund s dividend reinvestment plan, $3,220 was reinvested into the Fund through the issuance of 97,252 shares of common stock.

The Fund has performed an evaluation of subsequent events through the date the financial statements were issued and has determined that no additional items require recognition or disclosure.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Kayne Anderson Midstream/Energy Fund, Inc.

In our opinion, the accompanying statement of assets and liabilities, including the schedule of investments, and the related statements of operations and of changes in net assets applicable to common stockholders and of cash flows and the financial highlights present fairly, in all material respects, the financial position of Kayne Anderson Midstream/Energy Fund, Inc. (the Fund) at November 30, 2013, and the results of its operations and cash flows for the year then ended, the changes in its net assets applicable to common stockholders for each of the two years in the period then ended and the financial highlights for each of the periods presented, in conformity with accounting principles generally accepted in the United States of America. These financial statements and financial highlights (hereafter referred to as financial statements) are the responsibility of the Fund s management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits, which included confirmation of securities at November 30, 2013 by correspondence with the custodian and brokers, provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP

Los Angeles, California

January 29, 2014

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

GLOSSARY OF KEY TERMS

(UNAUDITED)

This glossary contains definitions of certain key terms, as they are used in our investment objective and policies and as described in this Annual Report. These definitions may not correspond to standard sector definitions.

Energy Assets means assets that are used in the energy sector, including assets used in exploring, developing, producing, generating, transporting, transmitting, storing, gathering, processing, refining, distributing, mining or marketing of natural gas, natural gas liquids, crude oil, refined products, coal or electricity.

Energy Companies means companies that own and operate Energy Assets or provide energy-related services. For purposes of this definition, this includes companies that (i) derive at least 50% of their revenues or operating income from operating Energy Assets or providing services for the operation of such Energy Assets or (ii) have Energy Assets that represent the majority of their assets.

General Partner MLPs means Master Limited Partnerships whose assets consist of ownership interests of an affiliated Master Limited Partnership (which may include general partnership interests, incentive distribution rights, common units and subordinated units).

Master Limited Partnerships means limited partnerships and limited liability companies that are publicly traded and are treated as partnerships for federal income tax purposes.

Midstream Assets means assets used in energy logistics, including, but not limited to, assets used in transporting, storing, gathering, processing, distributing, or marketing of natural gas, natural gas liquids, crude oil or refined products.

Midstream Companies means companies, other than Midstream MLPs, that own and operate Midstream Assets and are taxed as corporations for federal income tax purposes. This includes companies structured like MLP s, but not treated as a publicly-traded partnership for RIC qualification purposes. For purposes of this definition, this includes companies that (i) derive at least 50% of their revenue or operating income from operating Midstream Assets or (ii) have Midstream Assets that represent the majority of their assets.

Midstream/Energy Sector consists of (a) Midstream MLPs, (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies.

Midstream Sector consists of (a) Midstream MLPs and (b) Midstream Companies.

Midstream MLPs means MLPs that principally own and operate Midstream Assets. Midstream MLPs also include (a) MLPs that provide transportation and distribution services of energy related products through the ownership of marine transportation vessels, (b) General Partner MLPs whose assets consist of ownership interests of an affiliated Midstream MLP and (c) MLP Affiliates of Midstream MLPs.

MLPs means entities that are structured as Master Limited Partnerships and their affiliates and includes Midstream MLPs, Other MLPs and MLP Affiliates.

MLP Affiliates means affiliates of Master Limited Partnerships, substantially all of whose assets consist of i-units. MLP Affiliates are not treated as partnerships for federal income tax purposes.

Other Energy Companies means Energy Companies, excluding MLPs and Midstream Companies.

Other MLPs consists of (a) upstream MLPs, (b) coal MLPs, (c) propane MLPs and (d) MLPs that operate other energy assets or provide energy-related services.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

PRIVACY POLICY NOTICE

(UNAUDITED)

Rev. 01/2011

FACTS	**WHAT DOES KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC. (KMF) DO WITH YOUR PERSONAL INFORMATION?**
Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: n Social Security number and account balances n Payment history and transaction history n Account transactions and wire transfer instructions When you are *no longer* our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers personal information; the reasons KMF chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does KMF share?	Can you limit this sharing?
For our everyday business purposes such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes to offer our products and services to you	No	No
For joint marketing with other financial companies	No	We don t share
For our affiliates everyday business purposes information about your transactions and experiences	No	We don t share
	No	We don t share

For our affiliates everyday business purposes information about your creditworthiness		
For nonaffiliates to market to you	No	We don t share

Questions? Call 877-657-3863 or go to http://www.kaynefunds.com

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

PRIVACY POLICY NOTICE

(UNAUDITED)

Who we are	
Who is providing this notice?	KMF
What we do	
How does KMF protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. Access to your personal information is on a need-to-know basis. KMF has adopted internal policies to protect your non-public personal information.
How does KMF collect my personal information?	We collect your personal information, for example, when you n Open an account or provide account information n Buy securities from us or make a wire transfer n Give us your contact information We also collect your personal information from other companies.
Why can t I limit all sharing?	Federal law gives you the right to limit only n sharing for affiliates everyday business purposes information about your creditworthiness n affiliates from using your information to market to you n sharing for nonaffiliates to market to you

State laws and individual companies may give you additional rights to limit sharing.

Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. n *KMF does not share with our affiliates.*
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies. n *KMF does not share with nonaffiliates so they can market to you.*
Joint marketing	A formal agreement between nonaffiliated financial companies that together market financial products or services to you. n *KMF doesn t jointly market.*

Other important information

None.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

DIVIDEND REINVESTMENT PLAN

(UNAUDITED)

Kayne Anderson Midstream/Energy Fund, Inc., a Maryland corporation (the Fund), has adopted the following plan (the Plan) with respect to distributions declared by its Board of Directors (the Board) on shares of its Common Stock:

1. Unless a stockholder specifically elects to receive cash as set forth below, all distributions hereafter declared by the Board shall be payable in shares of the Common Stock of the Fund, and no action shall be required on such stockholder s part to receive a distribution in stock.

2. Such distributions shall be payable on such date or dates as may be fixed from time to time by the Board to stockholders of record at the close of business on the record date(s) established by the Board for the distribution involved.

3. The Fund may use newly-issued shares of its Common Stock or purchase shares in the open market in connection with the implementation of the plan. The number of shares to be issued to a stockholder shall be based on share price equal to 95% of the closing price of the Fund s Common Stock one day prior to the dividend payment date.

4. The Board may, in its sole discretion, instruct the Fund to purchase shares of its Common Stock in the open market in connection with the implementation of the Plan as follows: If the Fund s Common Stock is trading below net asset value at the time of valuation, upon notice from the Fund, the Plan Administrator (as defined below) will receive the dividend or distribution in cash and will purchase Common Stock in the open market, on the New York Stock Exchange or elsewhere, for the Participants accounts, except that the Plan Administrator will endeavor to terminate purchases in the open market and cause the Fund to issue the remaining shares if, following the commencement of the purchases, the market value of the shares, including brokerage commissions, exceeds the net asset value at the time of valuation. These remaining shares will be issued by the Fund at a price equal to the greater of (i) the net asset value at the time of valuation or (ii) 95% of the then current market price.

5. In a case where the Plan Administrator has terminated open market purchases and caused the issuance of remaining shares by the Fund, the number of shares received by the participant in respect of the cash dividend or distribution will be based on the weighted average of prices paid for shares purchased in the open market, including brokerage commissions, and the price at which the Fund issues remaining shares. To the extent that the Plan Administrator is unable to terminate purchases in the open market before the Plan Administrator has completed its purchases, or remaining shares cannot be issued by the Fund because the Fund declared a dividend or distribution payable only in cash, and the market price exceeds the net asset value of the shares, the average share purchase price paid by the Plan Administrator may exceed the net asset value of the shares, resulting in the acquisition of fewer shares than if the dividend or distribution had been paid in shares issued by the Fund.

6. A stockholder may, however, elect to receive his or its distributions in cash. To exercise this option, such stockholder shall notify American Stock Transfer & Trust Company, the plan administrator and the Fund s transfer agent and registrar (collectively the Plan Administrator), in writing so that such notice is received by the Plan Administrator no later than the record date fixed by the Board for the distribution involved.

7. The Plan Administrator will set up an account for shares acquired pursuant to the Plan for each stockholder who has not so elected to receive dividends and distributions in cash (each, a Participant). The Plan Administrator may hold each Participant s shares, together with the shares of other Participants, in non-certificated form in the Plan Administrator s name or that of its nominee. Upon request by a Participant, received no later than three (3) days prior to the payable date, the Plan Administrator will, instead of crediting shares to and/or carrying shares in a Participant s account, issue, without charge to the Participant, a certificate registered in the Participant s name for the number of whole shares payable to the Participant and a check for any fractional share less a broker commission on the sale of such fractional shares. If a

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

DIVIDEND REINVESTMENT PLAN

(UNAUDITED)

request to terminate a Participant s participation in the Plan is received less than three (3) days before the payable date, dividends and distributions for that payable date will be reinvested. However, subsequent dividends and distributions will be paid to the Participant in cash.

8. The Plan Administrator will confirm to each Participant each acquisition made pursuant to the Plan as soon as practicable but not later than ten (10) business days after the date thereof. Although each Participant may from time to time have an undivided fractional interest (computed to three decimal places) in a share of Common Stock of the Fund, no certificates for a fractional share will be issued. However, dividends and distributions on fractional shares will be credited to each Participant s account. In the event of termination of a Participant s account under the Plan, the Plan Administrator will adjust for any such undivided fractional interest in cash at the market value of the Fund s shares at the time of termination.

9. The Plan Administrator will forward to each Participant any Fund related proxy solicitation materials and each Corporation report or other communication to stockholders, and will vote any shares held by it under the Plan in accordance with the instructions set forth on proxies returned by Participants to the Fund.

10. In the event that the Fund makes available to its stockholders rights to purchase additional shares or other securities, the shares held by the Plan Administrator for each Participant under the Plan will be added to any other shares held by the Participant in certificated form in calculating the number of rights to be issued to the Participant.

11. The Plan Administrator s service fee, if any, and expenses for administering the Plan will be paid for by the Fund.

12. Each Participant may terminate his or its account under the Plan by so notifying the Plan Administrator via the Plan Administrator s website at www.amstock.com, by filling out the transaction request form located at the bottom of the Participant s Statement and sending it to American Stock Transfer and Trust Company, P.O. Box 922, Wall Street Station, New York, NY 10269-0560 or by calling the Plan Administrator at (888) 888-0317. Such termination will be effective immediately. The Plan may be terminated by the Fund upon notice in writing mailed to each Participant at least 30 days prior to any record date for the payment of any dividend or distribution by the Fund. Upon any termination, the Plan Administrator will cause a certificate or certificates to be issued for the full shares held for the Participant under the Plan and a cash adjustment for any fractional share to be delivered to the Participant without charge to the Participant. If a Participant elects by his or its written notice to the Plan Administrator in advance of termination to have the Plan Administrator sell part or all of his or its shares and remit the proceeds to the Participant, the Plan Administrator is authorized to deduct a $15.00 transaction fee plus a $0.10 per share brokerage commission from the proceeds.

13. These terms and conditions may be amended or supplemented by the Fund at any time but, except when necessary or appropriate to comply with applicable law or the rules or policies of the Securities and Exchange Commission or any other regulatory authority, only by mailing to each Participant appropriate written notice at least 30 days prior to the effective date thereof. The amendment or supplement shall be deemed to be accepted by each Participant unless, prior to the effective date thereof, the Plan Administrator receives written notice of the termination of his or its account under the Plan. Any such amendment may include an appointment by the Plan Administrator in its place and stead of a successor agent under these terms and conditions, with full power and authority to perform all or any of the acts to be performed by the Plan Administrator under these terms and conditions. Upon any such appointment of any agent for the purpose of receiving dividends and distributions, the Fund will be authorized to pay to such successor agent, for each Participant s account, all dividends and distributions payable on shares of the Fund held in the Participant s name or under the Plan for retention or application by such successor agent as provided in these terms and conditions.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

DIVIDEND REINVESTMENT PLAN

(UNAUDITED)

14. The Plan Administrator will at all times act in good faith and use its best efforts within reasonable limits to ensure its full and timely performance of all services to be performed by it under this Plan and to comply with applicable law, but assumes no responsibility and shall not be liable for loss or damage due to errors unless such error is caused by the Plan Administrator s negligence, bad faith, or willful misconduct or that of its employees or agents.

15. These terms and conditions shall be governed by the laws of the State of Maryland.

Adopted: November 18, 2010

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

INVESTMENT MANAGEMENT AGREEMENT APPROVAL DISCLOSURE

(UNAUDITED)

The Fund s Board of Directors on September 25, 2013 approved the continuation of the Fund s Investment Management Agreement (the Agreement) with KA Fund Advisors, LLC (the Adviser) for an additional one-year term through October 19, 2014.

During the course of each year and in connection with its consideration of the Agreement, the Board of Directors received various written materials from the Adviser, including but not limited to (i) information on the advisory personnel of the Adviser; (ii) information on the internal compliance procedures of the Adviser; (iii) comparative information showing how the Fund s fee schedule compares to other registered investment companies that follow investment strategies similar to those of the Fund; (iv) information regarding brokerage and portfolio transactions; (v) comparative information showing how the Fund s performance compares to other registered investment companies that follow investment strategies similar to those of the Fund, as well as applicable indexes; and (vi) information on any legal proceedings or regulatory audits or investigations affecting the Adviser.

After receiving and reviewing these materials, the Board of Directors, at an in-person meeting called for such purpose, discussed the terms of the Agreement. Representatives from the Adviser attended the meeting and presented additional extensive oral and written information to the Board of Directors to assist in its considerations. The Directors who are not parties to the Agreement or interested persons (as defined in the 1940 Act) of any such party (the Independent Directors) also met in executive session to further discuss the terms of the Agreement and the information provided by the Adviser.

The Independent Directors reviewed various factors, detailed information provided by the Adviser at the meeting and at other times throughout the year, and other relevant information and factors including the following, no single factor of which was dispositive in their decision whether to approve the Agreement:

The nature, extent, and quality of the services to be provided by the Adviser

The Independent Directors considered the scope and quality of services that have been provided by the Adviser under the Agreement. The Independent Directors considered the quality of the investment research capabilities of the Adviser and the other resources the Adviser has dedicated to performing services for the Fund, including the high caliber of portfolio managers and research analysts involved, the large and experienced team of investment, accounting, administrative, legal, trading and compliance professionals at the Adviser dedicated to the Fund, and the continued addition of professionals at the Adviser to broaden its research and coverage efforts. The quality of other services, including the Adviser s assistance in the coordination of the activities of some of the Fund s other service providers, the provision of certain administrative, compliance, reporting and financial services by the Adviser, the call strategy used and the responsible handling of the leverage target, also was considered. The Independent Directors took note of the Adviser s excellent track records in identifying and executing on key investment themes and in sourcing and negotiating private investments or PIPEs for the Fund as well as the Fund s best-in-class access to investments, financing and capital markets due in part to the Adviser s credibility with institutional investors. The Independent Directors also considered the nature and quality of the services provided by the Adviser to the Fund in light of their experience as Directors of the Fund and another investment company managed by the Adviser, their confidence in the Adviser s integrity and competence gained from that experience and the Adviser s responsiveness to questions, concerns or requests for information raised or made by them in the past. The Independent Directors noted the high quality of services provided by the Adviser when the market faced significant turmoil and continued to experience various challenges as well as the Adviser s efforts to maximize returns and its leadership position in the markets in which it invests. The Independent Directors concluded that the Adviser has the quality and depth of personnel and investment methods essential to performing its duties under the Agreement and that the nature and the proposed cost of such advisory services are fair and reasonable in light of the services provided.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

INVESTMENT MANAGEMENT AGREEMENT APPROVAL DISCLOSURE

(UNAUDITED)

The Fund s performance under the management of the Adviser

The Independent Directors reviewed information pertaining to the performance of the Fund. This data compared the Fund s performance to the performance of certain other registered investment companies that follow investment strategies similar to those of the Fund as well as specialized and more general market indexes. The comparative information showed that the performance of the Fund compares favorably to other similar closed-end funds as well as to other types of publicly available investment vehicles such as mutual funds and ETFs. Based upon their review, the Independent Directors concluded that the Fund s investment performance has been consistently above average compared to other closed-end funds that focus on investments in midstream and energy companies and that the Fund has generated industry-leading returns for investors over several periods. The Independent Directors noted that in addition to the information received for this meeting, the Independent Directors also receive detailed performance information for the Fund at each regular Board of Directors meeting during the year. The Independent Directors considered the investment performance of other investment companies managed by the Adviser but noted that they are of limited value because of various differences in strategy and structure between the Fund and the other investment companies. The Independent Directors did not consider the performance of other accounts of the Adviser as there were no accounts similar enough to be relevant for performance purposes.

The reasonability of the management fee and fall-out benefits

The Independent Directors considered the Fund s management fee under the Agreement in comparison to the management fees of funds within the Fund s peer group and believed such comparisons to be acceptable to the Fund. The Independent Directors also compared the fee structure under the Agreement with that of various private funds and separately managed accounts (the Other Accounts) advised by the Adviser or its affiliates and concluded that the fee rate under the Agreement is lower than many of the Other Accounts because the Adviser charges a performance fee for many of the Other Accounts. The Independent Directors observed that the fee rate for the Fund is higher than other comparable closed-end funds as well as other types of public investment vehicles such as mutual funds and ETFs, but believe that the quality of services provided by the Adviser is higher, which justifies the higher fee. The Adviser s successful handling of the past market downturn and related leverage challenges, the Fund s participation in private investments, and the Adviser s successful pricing and timing strategies related to the capital raising for the Fund were also noted by the Independent Directors as relevant considerations in evaluating the reasonableness of the management fee. Based on those comparisons, the Independent Directors concluded that the management fee remains reasonable.

The Independent Directors also considered certain benefits the Adviser realizes due to its relationship with the Fund. In particular, they noted that the Adviser has soft dollar arrangements under which certain brokers may provide industry research to the Adviser s portfolio managers through the use of a portion of the brokerage commissions generated from the Adviser s trading activities on behalf of the Fund. The Independent Directors acknowledged that the Fund s stockholders also benefit from these soft dollar arrangements because the Adviser is able to receive this research, which is used in the management of the Fund s portfolio, by aggregating securities trades.

The extent to which economies of scale would be realized as the Fund grows and whether fee levels reflect these economies of scale for the benefit of stockholders

The Independent Directors considered economies of scale that are being enjoyed by stockholders of the Fund. In this regard, they noted the extent to which operating expenses declined and noted that the Adviser added professionals to its already robust and high-quality investment team, both of which represented a sharing of those economies of scale. The Independent Directors also considered further possible economies of scale that the Adviser could achieve in its management of the Fund. The Independent Directors acknowledged the Adviser s

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

INVESTMENT MANAGEMENT AGREEMENT APPROVAL DISCLOSURE

(UNAUDITED)

various efforts to control and reduce operating costs of the Fund, which in part are related to the scale of all the affiliated registered funds managed by the Adviser. They considered the anticipated asset levels of the Fund, the information provided by the Adviser relating to its estimated costs and profitability, and information comparing the fee rate to be charged by the Adviser with fee rates charged by other unaffiliated investment advisers to their investment company clients. The Independent Directors also considered the Adviser s commitment to retaining its current professional staff in a competitive environment for investment professionals. The Independent Directors concluded that the fee structure was reasonable in view of the information provided by the Adviser. The Independent Directors also noted that the fee structure currently does not provide for a sharing of any economies of scale that might be experienced from substantial future growth of the Fund.

Based on the review of the Board of Directors of the Fund, including their consideration of each of the factors discussed above and the materials requested from and provided by the Adviser, the Board concluded, in agreement with the recommendation of the Independent Directors, that the Fund and its stockholders received reasonable value in return for the advisory fees and other amounts paid to the Adviser by the Fund under the Agreement, that stockholders could expect to receive reasonable value in return for the advisory fees and other amounts proposed to be paid to the Adviser by the Fund under the Agreement and that the approval of the continuation of the Agreement was in the best interests of stockholders of the Fund.

KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS

(UNAUDITED)

Independent Directors[1]

Name (Year Born)	Position(s) Held with Fund, Term of Office/Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer During Past Five Years
William R. Cordes (born 1948)	Director. 3-year term as Director (until the 2016 Annual Meeting of Stockholders)/served since inception	Retired from Northern Border Pipeline Company in March 2007 after serving as President from October 2000 to March 2007. Chief Executive Officer of Northern Border Partners, L.P. from October 2000 to April 2006. President of Northern Natural Gas Company from 1993 to 2000. President of Transwestern Pipeline Company from 1996 to 2000.	Current: Kayne Anderson Energy Development Company (KED) Boardwalk Pipeline Partners, LP (pipeline MLP) Prior: Northern Border Partners, L.P. (midstream MLP)
Barry R. Pearl (born 1949)	Director. 3-year term (until the 2015 Annual Meeting of Stockholders)/served since inception	Executive Vice President of Kealine, LLC, a private developer and operator of petroleum infrastructure facilities (and its affiliate WesPac Midstream LLC an energy infrastructure developer), since February 2007. Provided management consulting services from January 2006 to February 2007. President of Texas Eastern Products Pipeline Company, LLC (TEPPCO), (the general partner of TEPPCO Partners, L.P.,) from February 2001 to December 2005. Chief Executive Officer and director of TEPPCO from May 2002 to December 2005; and Chief Operating Officer from February 2001 to May 2002.	Current: KED Targa Resources Partners LP (midstream MLP) Magellan Midstream Partners, L.P. (midstream MLP)

			Peregrine Midstream Partners LLC (natural gas storage) Prior: Seaspan Corporation (containership chartering) TEPPCO Partners, L.P. (midstream MLP)
Albert L. Richey (born 1949)	Director. 3-year term (until the 2016 Annual Meeting of Stockholders)/served since inception	Vice President Finance and Treasurer of Anadarko Petroleum Corporation since 2012; Vice President Special Projects from 2009 to 2012; Vice President Corporate Development from 2006 to 2008; Vice President and Treasurer from 1995 to 2005 and Treasurer from 1987 to 1995.	KED Boys & Girls Clubs of Houston Boy Scouts of America
William L. Thacker (born 1945)	Director. 3-year term (until the 2015 Annual Meeting of Stockholders)/served since inception	Retired from the Board of TEPPCO in May 2002 after serving as Chairman from March 1997 to May 2002; Chief Executive Officer from January 1994 to May 2002; and President, Chief Operating Officer and Director from September 1992 to January 1994. Chairman of the Board of Directors of Copano Energy, L.L.C. from 2009 to 2013.	Current: KED Copano Energy, L.L.C. (midstream MLP) Prior: Pacific Energy Partners, L.P. (midstream MLP) GenOn Energy, Inc. (electricity generation and sales) TEPPCO Partners, L.P. (midstream MLP)

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS

(UNAUDITED)

Interested Director and Non-Director Officers

Name (Year Born)	**Position(s) Held with Fund, Term of Office/Time of Service**	**Principal Occupations During Past Five Years**	**Other Directorships Held by Director/Officer During Past Five Years**
Kevin S. McCarthy[2] (born 1959)	Chairman of the Board of Directors, President and Chief Executive Officer. 3-year term as a director (until the 2014 Annual Meeting of Stockholders), elected annually as an officer/served since inception[3]	Senior Managing Director of KACALP since June 2004 and of KAFA since 2006. President and Chief Executive Officer of Kayne Anderson MLP Investment Company (KYN); Kayne Anderson Energy Total Return Fund, Inc. (KYE); and Kayne Anderson Energy Development Company (KED) since inception (KYN inception in 2004; KYE inception in 2005; and KED inception in 2006). Global Head of Energy at UBS Securities LLC from November 2000 to May 2004.	Current: KYN KYE KED Emerge Energy Services LP (frac sand MLP) Range Resource Corporation (oil and gas exploration and production company) Prior: Clearwater Natural Resources, L.P. (coal mining) Direct Fuels Partners, L.P. (transmix refining and fuels distribution)

			International Resource Partners LP (coal mining)
			K-Sea Transportation Partners LP (marine transportation MLP)
			ProPetro Services, Inc. (oilfield services)
James C. Baker (born 1972)	Executive Vice President. Elected annually/served since inception	Senior Managing Director of KACALP and KAFA since February 2008, Managing Director of KACALP and KAFA since December 2004 and 2006, respectively. Vice President of KYN and KYE from 2005 to 2008; and of KED from 2006 to 2008, and Executive Vice President of KYN, KYE and KED since June 2008.	Current: KED Prior: K-Sea Transportation Partners LP (marine transportation MLP) Petris Technology, Inc. (data management for energy companies) ProPetro Services, Inc. (oilfield services)
J.C. Frey (born 1968)	Executive Vice President, Assistant Treasurer and Assistant Secretary. Elected annually/served since inception	Senior Managing Director of KACALP since 2004 and of KAFA since 2006, and Managing Director of KACALP since 2000. Portfolio Manager of KACALP since 2000, Portfolio Manager, Vice President, Assistant Secretary and Assistant Treasurer of KYN since 2004; of KYE since 2005, and of KED since 2006. Executive Vice President of KYN, KYE and KED since June 2008.	None
Terry A. Hart (born 1969)	Chief Financial Officer and Treasurer. Elected annually/served since inception	Chief Financial Officer and Treasurer of KYN and KYE since December 2005, and KED since September 2006. Director of Structured Finance, Assistant Treasurer, Senior Vice President and Controller of Dynegy, Inc. from 2000 to 2005.	Current: The Source for Women (not-for-profit organization)

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

INFORMATION CONCERNING DIRECTORS AND CORPORATE OFFICERS

(UNAUDITED)

Interested Director and Non-Director Officers

Name (Year Born)	Position(s) Held with Fund, Term of Office/Time of Service	Principal Occupations During Past Five Years	Other Directorships Held by Director/Officer During Past Five Years
Ron M. Logan, Jr. (born 1960)	Senior Vice President Elected annually/served since June 2012	Managing Director KACALP and KAFA since September 2006. Senior Vice President of KED since September 2006. Senior Vice President of KYN and KYE since September 2012. Independent consultant to several leading energy firms. Senior Vice President of Ferrellgas Inc. from 2003 to 2005. Vice President of Dynegy Midstream Services from 1997 to 2002.	Current: VantaCore Partners LP (aggregates)
Jody C. Meraz (born 1978)	Vice President. Elected annually. Elected annually/served since 2011	Senior Vice President of KACALP and KAFA since 2011. Vice President of KACALP from 2007 to 2011. Associate of KACALP and KAFA since 2005 and 2006, respectively. Vice President of KYN, KYE, and KED since 2011.	None
Michael O Neil (born 1983)	Chief Compliance Officer. Elected annually/served since 2013	Chief Compliance Officer of KACALP and KAFA since 2012 and of KYN, KED, KYE and KA Associates, Inc. (broker-dealer) since December 2013.	None
David J. Shladovsky (born 1960)	Secretary. Elected annually/served since inception	Managing Director and General Counsel of KACALP since 1997 and of KAFA since 2006. Secretary and Chief Compliance Officer (through December 2013) of KYN since 2004; of KYE since 2005, and of KED since 2006.	None

(1) The 1940 Act requires the term Fund Complex to be defined to include registered investment companies advised by our Adviser and the Fund Complex included KYN, KYE, KED and KMF. Each Independent Director oversees two registered investment companies in the Fund Complex, as noted above.

(2) Mr. McCarthy is an interested person of the Fund by virtue of his employment relationship with KAFA, our investment adviser.

(3) Mr. McCarthy currently serves on the boards of directors of KYN, KYE, and KED, all closed-end investment companies registered under the Investment Company Act of 1940, as amended, that are managed by KAFA.

Additional information regarding the Fund s directors is contained in the Fund s Statement of Additional Information, the most recent version of which can be found on the Fund s website at *http://www.kaynefunds.com* or is available without charge, upon request, by calling (877) 657-3863.

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KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.

ANNUAL CERTIFICATION

(UNAUDITED)

The Fund s Chief Executive Officer has filed an annual certification with the NYSE that, as of the date of the certification, he was unaware of any violation by the Fund of the NYSE s corporate governance listing standards.

PROXY VOTING AND PORTFOLIO HOLDINGS INFORMATION

(UNAUDITED)

The policies and procedures that the Fund uses to determine how to vote proxies relating to its portfolio securities are available:

- without charge, upon request, by calling (877) 657-3863/MLP-FUND;
- on the Fund s website, *http://www.kaynefunds.com*; and
- on the SEC s website, *http://www.sec.gov*.

Information regarding how the Fund voted proxies relating to portfolio securities during the most recent 12-month period ended June 30 is available without charge, upon request, by calling (877) 657-3863/MLP-FUND, and on the SEC s website at *http://www.sec.gov* (see Form N-PX).

The Fund files a complete schedule of its portfolio holdings for the first and third quarters of each of its fiscal years with the SEC on Form N-Q and Form N-30B-2. The Fund s Form N-Q and Form N-30B-2 are available on the SEC s website at *http://www.sec.gov* and may be reviewed and copied at the SEC s Public Reference Room in Washington, DC. Information on the operation of the SEC s Public Reference Room may be obtained by calling 1-800-SEC-0330. The Fund also makes its Form N-Q and Form N-30B-2 available on its website at http://www.kaynefunds.com.

REPURCHASE DISCLOSURE

(UNAUDITED)

Notice is hereby given in accordance with Section 23(c) of the 1940 Act, that the Fund may from time to time purchase shares of its common and preferred stock and its Senior Notes in the open market or in a privately negotiated transactions.

Directors and Corporate Officers

Kevin S. McCarthy	Chairman of the Board of Directors, President and Chief Executive Officer
William R. Cordes	Director
Barry R. Pearl	Director
Albert L. Richey	Director
William L. Thacker	Director
Terry A. Hart	Chief Financial Officer and Treasurer
David J. Shladovsky	Secretary
Michael O Neil	Chief Compliance Officer
J.C. Frey	Executive Vice President, Assistant Secretary and Assistant Treasurer
James C. Baker	Executive Vice President
Ron M. Logan, Jr.	Senior Vice President
Jody C. Meraz	Vice President

Investment Adviser
KA Fund Advisors, LLC
811 Main Street, 14th Floor
Houston, TX 77002

1800 Avenue of the Stars, Third Floor
Los Angeles, CA 90067

Administrator
Ultimus Fund Solutions, LLC
225 Pictoria Drive, Suite 450
Cincinnati, OH 45246

Stock Transfer Agent and Registrar
American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219

Custodian
JPMorgan Chase Bank, N.A.
14201 North Dallas Parkway, Second Floor
Dallas, TX 75254

Independent Registered Public Accounting Firm
PricewaterhouseCoopers LLP
601 S. Figueroa Street, Suite 900
Los Angeles, CA 90017

Legal Counsel
Paul Hastings LLP
55 Second Street, 24th Floor
San Francisco, CA 94105

Please visit us on the web at *http://www.kaynefunds.com* or call us toll-free at 1-877-657-3863.

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Item 2. Code of Ethics.

(a) As of the end of the period covered by this report, the Registrant has adopted a code of ethics that applies to the Registrant s principal executive officer, principal financial officer, principal accounting officer, or persons performing similar functions.

(c) and (d) During the period covered by this report, there was no amendment to, and no waiver, including implicit waiver, was granted from, any provision of the Registrant s code of ethics that applies to the Registrant s principal executive officer, principal financial officer, principal accounting officer, or persons performing similar functions.

(f)(1) Pursuant to Item 12(a)(1), the Registrant is attaching as an exhibit (EX-99.CODE ETH) a copy of its code of ethics that applies to its principal executive officer, principal financial officer, principal accounting officer, or persons performing similar functions.

Item 3. Audit Committee Financial Expert.

(a)(1) The Registrant s board of directors has determined that the Registrant has four audit committee financial experts serving on its audit committee.

(a)(2) The audit committee financial experts are William R. Cordes, Barry R. Pearl, Albert L. Richey, and William L. Thacker. Messrs. Cordes, Pearl, Richey, and Thacker are independent for purposes of this Item.

Item 4. Principal Accountant Fees and Services.

(a) through (d) The information in the table below is provided for professional services rendered to the Registrant by its independent registered public accounting firm, PricewaterhouseCoopers LLP, during the Registrant s (a) last fiscal year ended November 30, 2013, and (b) fiscal year ended November 30, 2012.

	2013	2012
Audit Fees	$ 179,200	$ 198,600
Audit-Related Fees	12,000	
Tax Fees	157,800	157,800
All Other Fees		
Total	$ 349,000	$ 356,400

With respect to the table above, Audit Fees are the aggregate fees billed for professional services for the audit of the Registrant s annual financial statements and services provided in connection with statutory and regulatory filings or engagements. Audit-Related Fees are the aggregate fees billed for assurance and related services reasonably related to the performance of the audit of the Registrant s financial statements and are not reported under Audit Fees. Tax Fees are the aggregate fees billed for professional services for tax compliance, tax advice and tax planning.

(e)(1) Audit Committee Pre-Approval Policies and Procedures.

Before the auditor is (i) engaged by the Registrant to render audit, audit related or permissible non-audit services to the Registrant or (ii) with respect to non-audit services to be provided by the auditor to the Registrant s investment adviser or any entity in the investment Registrant complex, if the nature of the services provided relate directly to the operations or financial reporting of the Registrant, either: (a) the Audit Committee shall pre-approve such engagement; or (b) such engagement shall be entered into pursuant to pre-approval policies and procedures established by the Audit Committee. Any such policies and procedures must be detailed as to the particular service and not involve any delegation of the Audit Committee s responsibilities to the Registrant s investment adviser. The Audit Committee may delegate to one or more of its members the authority to grant pre-approvals. The pre-approval policies and procedures shall include the requirement that the decisions of any member to whom authority is delegated under this provision be presented to the full Audit Committee at its next scheduled meeting. Under certain limited circumstances, pre-approvals are not required if certain de minimis thresholds are not exceeded, as such thresholds are set forth by the Audit Committee and in accordance with applicable Securities and Exchange Commission rules and regulations.

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(e)(2) None of the services provided to the Registrant described in paragraphs (b) through (d) of this Item 4 were pre-approved by the Audit Committee pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of regulation S-X.

(f) No disclosures are required by this Item 4(f).

(g) The aggregate non-audit fees billed by PricewaterhouseCoopers LLP for services rendered to the Registrant for the fiscal years ended November 30, 2013 and 2012 were $157,800. There were no non-audit fees billed by PricewaterhouseCoopers LLP for services rendered to the Registrant s investment adviser (not including any sub-adviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser) or any entity controlling, controlled by, or under common control with the investment adviser that provides ongoing services to the Registrant for each of the last two fiscal years.

(h) No disclosures are required by this Item 4(h).

Item 5. Audit Committee of Listed Registrants.

The Registrant has a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Securities and Exchange Act of 1934 (the Exchange Act), as amended. William R, Cordes (Chair), Barry R. Pearl, Albert L. Richey and William L. Thacker are the members of the Registrant s Audit Committee.

Item 6. Investments.

(a) Please see the schedule of investments contained in the Report to Stockholders included under Item 1 of this Form N-CSR.

(b) Not applicable.

Item 7. Disclosure of Proxy Voting Policies and Procedures for Closed-End Management Investment Companies.

The Registrant has delegated the voting of proxies relating to its voting securities to its investment adviser, KA Fund Advisors, LLC (the Adviser). The respective Proxy Voting Policies and Procedures of the Registrant and the Adviser are attached as Exhibit 99.VOTEREG and Exhibit 99.VOTEADV hereto.

Item 8. Portfolio Managers of Closed-End Management Investment Companies.

(a)(1) As of November 30, 2013, the following individuals (the Portfolio Managers) are primarily responsible for the day-to-day management of the Registrant s portfolio:

Kevin S. McCarthy is the Registrant s President, Chief Executive Officer and co-portfolio manager and has served as the President, Chief Executive Officer and co-portfolio manager of Kayne Anderson MLP Investment Company (KYN) since June 2004, of Kayne Anderson Energy Total Return Fund, Inc. (KYE) since May 2005 and of Kayne Anderson Energy Development Company (KED) since September 2006. Mr. McCarthy has served as a Senior Managing Director of Kayne Anderson Capital Advisors, L.P. (KACALP) since June 2004 and of the Adviser (collectively with KACALP, Kayne Anderson) since 2006. Prior to that, he was Global Head of Energy at UBS Securities LLC. In this role, he had senior responsibility for all of UBS energy investment banking activities. Mr. McCarthy was with UBS Securities from 2000 to 2004. From 1995 to 2000, Mr. McCarthy led the energy investment banking activities of Dean Witter Reynolds and then PaineWebber Incorporated. He began his investment banking career in 1984. He earned a BA degree in Economics and Geology from Amherst College in 1981, and an MBA degree in Finance from the University of Pennsylvania s Wharton School in 1984.

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J.C. Frey is the Registrant s Executive Vice President, Assistant Secretary, Assistant Treasurer and co-portfolio manager and a Senior Managing Director of Kayne Anderson. He serves as portfolio manager of Kayne Anderson s funds investing in MLP securities, including serving as a co-portfolio manager, Assistant Secretary and Assistant Treasurer of KYN since June 2004, of KYE since May 2005, and of KED since September 2006, Vice President of KYN from June 2004 through June 2008, of KYE from May 2005 through June 2008, and of KED from September 2006 through July 2008, and Executive Vice President of KYN and KYE since June 2008 and of KED since July 2008. Mr. Frey began investing in MLPs on behalf of Kayne Anderson in 1998 and has served as portfolio manager of Kayne Anderson s MLP funds since their inception in 2000. In addition to the closed-end funds, Mr. Frey manages approximately $6 billion in assets in MLPs and midstream companies and other Kayne Anderson funds. Prior to joining Kayne Anderson in 1997, Mr. Frey was a CPA and audit manager in KPMG Peat Marwick s financial services group, specializing in banking and finance clients and loan securitizations. Mr. Frey graduated from Loyola Marymount University with a BS degree in Accounting in 1990. In 1991, he received a Master s degree in Taxation from the University of Southern California.

(a)(2)(i) and (ii) Other Accounts Managed by Portfolio Managers:

The following table reflects information regarding accounts for which the Portfolio Managers have day-to-day management responsibilities (other than the Registrant). Accounts are grouped into three categories: (i) registered investment companies, (ii) other pooled investment vehicles, and (iii) other accounts. To the extent that any of these accounts pay advisory fees that are based on account performance, this information will be reflected in a separate table below. Information is shown as of November 30, 2013. Asset amounts are approximate and have been rounded.

	Registered Investment Companies (excluding the Registrant)		Other Pooled Investment Vehicles		Other Accounts	
Portfolio Manager	**Number of Accounts**	**Total Assets in the Accounts ($ in millions)**	**Number of Accounts**	**Total Assets in the Accounts ($ in millions)**	**Number of Accounts**	**Total Assets in the Accounts ($ in millions)**
Kevin S. McCarthy	3	$ 8,190		N/A		N/A
J.C. Frey	5	$ 8,480		N/A	10	$ 995

(a)(2)(iii) Other Accounts that Pay Performance-Based Advisory Fees Managed by Portfolio Managers:

The following table reflects information regarding accounts for which the Portfolio Managers have day-to-day management responsibilities (other than the Registrant) and with respect to which the advisory fee is based on the performance of the account. Information is shown as of November 30, 2013. Asset amounts are approximate and have been rounded.

	Registered Investment Companies (excluding the Registrant)		Other Pooled Investment Vehicles		Other Accounts	
Portfolio Manager	**Number of Accounts**	**Total Assets in the Accounts ($ in millions)**	**Number of Accounts**	**Total Assets in the Accounts ($ in millions)**	**Number of Accounts**	**Total Assets in the Accounts ($ in millions)**
Kevin S. McCarthy		N/A	2	$ 1,190	1	$ 70
J.C. Frey		N/A	14	$ 4,688	2	$ 86

(a)(2)(iv) Potential Material Conflicts of Interest:

Some of the other accounts managed by Messrs. McCarthy and Frey have investment strategies that are similar to those of the Registrant. However, Kayne Anderson manages potential conflicts of interest by allocating investment opportunities in accordance with its written allocation policies and procedures.

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(a)(3) Compensation of Each Portfolio Manager, as of November 30, 2013:

Messrs. McCarthy and Frey are compensated by KACALP through partnership distributions from KACALP, based on the amount of assets they manage, and they receive a portion of the advisory fees applicable to those accounts, which, with respect to certain accounts, as noted above, are based in part on the performance of those accounts.

Additional benefits received by Messrs. McCarthy and Frey are normal and customary benefits provided by investment advisers.

(a)(4) As of November 30, 2013, the end of the Registrant s most recently completed fiscal year, the dollar range of equity securities beneficially owned by each Portfolio Manager in the Registrant is shown below:

Kevin S. McCarthy: $500,001-$1,000,000

J.C. Frey: $500,001-$1,000,000

Through their limited partnership interests in KACALP, which owns shares of Registrant s common stock, Messrs. McCarthy and Frey could be deemed to also indirectly own a portion of Registrant s securities.

(b) Not applicable.

Item 9. Purchases of Equity Securities by Closed-End Management Investment Company and Affiliated Purchasers.

None.

Item 10. Submission of Matters to a Vote of Security Holders.

None.

Item 11. Controls and Procedures.

(a) The Registrant s principal executive and principal financial officers have evaluated the Registrant s disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the 1940 Act)) as of a date within 90 days of this filing and have concluded that the Registrant s disclosure controls and procedures are effective, as of such date, based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Exchange Act.

(b) The Registrant s principal executive and principal financial officers are aware of no changes in the Registrant s internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the second fiscal quarter of the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Registrant s internal control over financial reporting.

Item 12. Exhibits.

(a)(1) Code of Ethics attached hereto as EX-99.CODE ETH.

(a)(2) Separate certifications of Principal Executive and Principal Financial Officers of the Registrant pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 attached hereto as EX-99.CERT.

(b) Certification of Principal Executive and Principal Financial Officers of the Registrant pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 attached hereto as EX-99.906 CERT.

(99) Proxy Voting Policies of the Registrant attached hereto as EX-99.VOTEREG.

(99) Proxy Voting Policies of the Adviser attached hereto as EX-99.VOTEADV.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

	KAYNE ANDERSON MIDSTREAM/ENERGY FUND, INC.
Date: January 29, 2014	By: /s/ KEVIN S. MCCARTHY Kevin S. McCarthy Chairman of the Board of Directors, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Date: January 29, 2014	By: /s/ KEVIN S. MCCARTHY Kevin S. McCarthy Chairman of the Board of Directors, President and Chief Executive Officer
Date: January 29, 2014	By: /s/ TERRY A. HART Terry A. Hart Chief Financial Officer and Treasurer

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