Kayne Anderson Midstream/Energy Fund Increases its Quarterly Distribution to \$0.495 per Share for Q4 2014

Houston, TX – December 19, 2014 – Kayne Anderson Midstream/Energy Fund, Inc. (the "Fund") (NYSE: KMF) announced today its quarterly distribution of \$0.495 per share for the quarter ended November 30, 2014. This distribution represents an increase of 1.5% from the prior quarter's distribution and an increase of 6.5% from the distribution for the quarter ended November 30, 2013. This represents the thirteenth consecutive quarterly increase by the Fund.

The distribution will be payable on January 16, 2015 to common stockholders of record on December 30, 2014, with an ex-dividend date of December 26, 2014. The Fund estimates that none of this distribution will be treated as a return of capital for tax purposes. This estimate is based on the Fund's anticipated earnings and profits for fiscal 2014 and its accumulated earnings and profits as of November 30, 2014 (including gains and losses on sales of securities during the year ended November 30, 2014). The final determination of the tax character of the distribution will be made in early 2015 when the Fund can determine its actual earnings and profits for the full year (including gains and losses on the sale of securities) and may differ substantially from this preliminary information.

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Kayne Anderson Midstream/Energy Fund, Inc. is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, whose common stock is traded on the New York Stock Exchange. The Fund's investment objective is to provide a high level of total return with an emphasis on making quarterly cash distributions to its stockholders by investing at least 80% of its total assets in securities of companies in the Midstream/Energy Sector, consisting of: (a) Midstream Master Limited Partnerships ("MLPs"), (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies. The Fund anticipates that the majority of its investments will consist of investments in Midstream MLPs and Midstream Companies. See Glossary of Key Terms on page ii of the Prospectus for definitions of certain key terms.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: This press release 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 historical in nature. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ from the Fund's historical experience and its present expectations or projections indicated in any forward-looking statements. 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 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 objective will be attained.

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