Kayne Anderson MLP Investment Company Completes Offering of \$175 Million of Senior Notes

Houston, TX – August 23, 2013 – Kayne Anderson MLP Investment Company (the "Company") (NYSE: KYN) today announced that it completed a \$175 million offering of floating rate senior notes (the "Series HH Senior Notes") to qualified institutional buyers in a private offering pursuant to Rule 144A under the Securities Act of 1933.

The Series HH Senior Notes mature on August 19, 2016 and pay interest at a rate of 3-month LIBOR plus 1.25% per annum.

The net proceeds of approximately \$174 million from the offering will be used to make new portfolio investments, to repay outstanding indebtedness and for general corporate purposes.

This press release is neither an offer to sell nor a solicitation of an offer to buy the Senior Notes, nor shall there be any sale of these securities in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such state or jurisdiction.

The Series HH Senior Notes will not be registered under the Securities Act of 1933 and may not be offered or sold in the United States absent registration or an applicable exemption from registration. The offering was made to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933.

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Kayne Anderson MLP Investment Company is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, whose common stock is traded on the NYSE. The Company's investment objective is to obtain a high after-tax total return by investing at least 85% of its total assets in energy-related master limited partnerships and their affiliates (collectively, "MLPs"), and in other companies that, as their principal business, operate assets used in the gathering, transporting, processing, storing, refining, distributing, mining or marketing natural gas, natural gas liquids (including propane), crude oil, refined petroleum products or coal.

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 Company'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 Company'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 Company undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Company's investment objectives will be attained.

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