

Kayne Anderson MLP Investment CO

Form N-2/A

October 05, 2005

Table of Contents

As filed with the Securities and Exchange Commission on October 5, 2005

1933 Act File No. 333-123595

1940 Act File No. 811-21593

**U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

Form N-2

þ REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

þ PRE-EFFECTIVE AMENDMENT NO. 4

o POST-EFFECTIVE AMENDMENT NO.

and

þ REGISTRATION STATEMENT UNDER THE INVESTMENT COMPANY ACT OF 1940

þ AMENDMENT NO. 17

Kayne Anderson MLP Investment Company
(Exact Name of Registrant as Specified in Charter)

**1800 Avenue of the Stars, Second Floor
Los Angeles, California 90067**

(Address of Principal Executive Offices)

Registrant's Telephone Number, including Area Code: (310) 556-2721

David J. Shladovsky, Esq.
Kayne Anderson Capital Advisors, L.P.
1800 Avenue of the Stars, Second Floor
Los Angeles, California 90067
(Name and Address of Agent for Service)

Copies of Communications to:

David A. Hearth, Esq.
Paul, Hastings, Janofsky & Walker LLP
55 Second Street, 24th Floor
San Francisco, California 94105-3441
(415) 856-7000

John A. MacKinnon, Esq.
Sidley Austin Brown & Wood LLP
787 Seventh Avenue
New York, New York 10019
(212) 839-5300

Approximate Date of Proposed Public Offering: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form will be offered on a delayed or continuous basis in reliance on Rule 415 under the Securities Act of 1933, other than securities offered in connection with a dividend reinvestment plan, check the following box.

It is proposed that this filing will become effective (check appropriate box):

when declared effective pursuant to section 8(c).

CALCULATION OF REGISTRATION FEE UNDER THE SECURITIES ACT OF 1933

Table of Contents**MANAGEMENT****Directors and Officers**

Our business and affairs are managed under the direction of our Board of Directors, including supervision of the duties performed by Kayne Anderson. Our Board currently consists of five Directors. As indicated, a majority of our Board consists of Directors that are not interested persons as defined in Section 2(a)(19) of the 1940 Act. We refer to these individuals as our Independent Directors. The Board of Directors elects our officers, who serve at the Board's discretion. The following table includes information regarding our Directors and officers, and their principal occupations and other affiliations during the past five years. The address for all Directors and officers is 1800 Avenue of the Stars, Second Floor Los Angeles, CA 90067. All of the Directors currently serve on the board of directors of Kayne Anderson Energy Total Return Fund, Inc., a closed-end investment company registered under the 1940 Act that is advised by Kayne Anderson.

| Name (Year Born) | Position(s) Held with Registrant | Term of Office/ Time of Service | Principal Occupations During Past Five Years | Other Directorships Held by Director/Officer |
|--|---|--|--|---|
| Independent Directors | | | | |
| Anne K. Costin ⁽¹⁾ (born 1950) | Director | 3-year term/served since July 2004 | Ms. Costin is currently an Adjunct Professor in the Finance and Economics Department of Columbia University Graduate School of Business in New York City. As of March 1, 2005, Ms. Costin retired after a 28-year career at Citigroup. From July 2003 to her retirement, she held the position of Managing Director and, for the 3 years prior to July 2003, she held the position of Managing Director and Global Deputy Head of the Project & Structured Trade Finance product group within Citigroup's Investment Banking Division. | Kayne Anderson Energy Total Return Fund, Inc. |
| Steven C. Good (born 1942) | Director | 2-year term/ served since July 2004 | Mr. Good is a senior partner at Good Swartz Brown & Berns LLP, which offers accounting, tax and business advisory services to middle market private and publicly-traded companies, their owners and their management. Mr. Good founded Block, Good and Gagerman in 1976, which later evolved in stages into Good Swartz Brown & Berns LLP. | Kayne Anderson Energy Total Return Fund, Inc.; Arden Realty, Inc.; OSI Systems, Inc.; and Big Dog Holdings, Inc. |
| | Director | | | |

Terrence J. Quinn
(born 1951)

3-year
term/served
since July
2004

Mr. Quinn is Chairman of the Healthcare Group of Triton Pacific Capital Partners, LLC, a private equity investment firm. From 2000 to 2003, Mr. Quinn was a co-founder and managing partner of MTS Health Partners, a private merchant bank providing services to publicly traded and privately held small to mid-sized companies in the healthcare industry.

Kayne
Anderson
Energy
Total
Return
Fund, Inc.

Table of Contents

| Name (Year Born) | Position(s) Held with Registrant | Term of Office/ Time of Service | Principal Occupations During Past Five Years | Other Directorships |
|---|---|--|--|---|
| | | | | Held by Director/Officer |
| Gerald I. Isenberg (born 1940) | Director | 3-year term/service since June 2005 | Since 1995, Mr. Isenberg has served as a Professor at the University of Southern California School of Cinema-Television. Since 2004 he has been a member of the board of trustees of Partners for Development, a non-governmental organization dedicated to developmental work in third-world countries. From 1998 to 2002, Mr. Isenberg was a board member of Kayne Anderson Rudnick Mutual Funds ⁽²⁾ . From 1989 to 1995, he was President of Hearst Entertainment Productions, a producer of television movies and programming for major broadcast and cable networks. | Kayne Anderson Energy Total Return Fund, Inc.; Partners for Development. |
| Interested Director And Officers | | | | |
| Kevin S. McCarthy ⁽³⁾ (born 1959) | Chairman of the Board of Directors; President and Chief Executive Officer | 2-year term as a director, elected annually as an officer/since July 2004 | Mr. McCarthy has served as a Senior Managing Director of Kayne Anderson since June 2004. From November 2000 to May 2004, Mr. McCarthy was at UBS Securities LLC where he was Global Head of Energy. In this role, he had senior responsibility for all of UBS energy investment banking activities, including direct responsibility for securities underwriting and mergers and acquisitions in the MLP industry. From July 1997 to November 2000, Mr. McCarthy led the energy investment banking activities of PaineWebber Incorporated. From July 1995 to March 1997, he was head of the Energy Group at Dean Witter Reynolds. | Kayne Anderson Energy Total Return Fund, Inc.; Range Resources Corporation. |
| Ralph Collins Walter (born 1946) | Chief Financial Officer and Treasurer | Elected annually/ since inception | Mr. Walter has served as the Chief Operating Officer and Treasurer of Kayne Anderson since 2000. Before joining Kayne Anderson, he was the Chief Administrative Officer at ABN AMRO Inc., the U.S.-based, investment-banking arm of ABN-AMRO Bank. | Knox College |
| David J. Shladovsky (born 1960) | Secretary and Chief Compliance Officer | Elected annually/ since inception | Mr. Shladovsky has served as a Managing Director and General Counsel of Kayne Anderson since 1997. | None None |

J.C. Frey
(born 1968)

Vice
President,
Assistant
Treasurer,
Assistant
Secretary

Elected annually since June 2005 Mr. Frey has served as a Senior Managing Director of Kayne Anderson since 2004 and as a Managing Director since 2001. Mr. Frey has served as a Portfolio Manager of Kayne Anderson since 2000 and of Kayne Anderson MLP Investment Company since 2004. From 1998 to 2000, Mr. Frey was a Research Analyst at Kayne Anderson.

Table of Contents

| Title of Securities Being Registered | Amount Being Registered | Proposed Maximum Offering Price Per Unit(1) | Proposed Maximum Aggregate Offering Price(1) | Amount of Registration Fee(2) |
|---|------------------------------------|--|---|--|
| Common Stock, \$0.001 par value per share | 2,800,000 | \$27.65 | \$77,420,000 | \$9,112.33 |

(1) Estimated pursuant to Rule 457(c) solely for the purpose of determining the registration fee.

(2) \$117.70 previously paid.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.

Table of Contents

**KAYNE ANDERSON MLP INVESTMENT COMPANY (the Registrant)
CONTENTS OF THE REGISTRATION STATEMENT**

This registration statement of the Registrant contains the following documents:

Facing Sheet

Contents of the Registration Statement

Part A Prospectus of the Registrant

Part B Statement of Additional Information of the Registrant

Part C Other Information

Signature Page

Exhibits

Table of Contents

PART A
PROSPECTUS OF
REGISTRANT

Table of Contents

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 5, 2005

PROSPECTUS

**Shares
Common Stock
\$ per share**

We are a non-diversified, closed-end management investment company that began investment activities on September 28, 2004. Our investment objective is to obtain a high after-tax total return by investing at least 85% of our net assets plus any borrowings (our 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 (collectively with MLPs, Midstream Energy Companies). We invest in equity securities of (i) master limited partnerships, including preferred, common and subordinated units and general partner interests, (ii) owners of such interests in master limited partnerships, and (iii) other Midstream Energy Companies. Additionally, we may invest in debt securities of MLPs and other Midstream Energy Companies. Under normal market conditions, we intend to invest at least 50% of our total assets in publicly traded securities of MLPs and other Midstream Energy Companies, and up to 50% (but not more than 60%) of our total assets in unregistered or otherwise restricted securities of MLPs and other Midstream Energy Companies, including securities issued by private companies.

(continued on following page)

Investing in our common stock may be speculative and involve a high degree of risk and should not constitute a complete investment program. Before buying any shares, you should read the discussion of the material risks of investing in our common stock in Risk Factors beginning on page 25 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

| | Per Share | Total(3) |
|--------------------------------------|-----------|----------|
| Public Offering Price | \$ | \$ |
| Sales Load (1) | \$ | \$ |
| Proceeds, Before Expenses, To Us (2) | \$ | \$ |

(1) The aggregate compensation to the underwriters will be \$, which will consist solely of the sales load.

(2) We estimate that we will incur approximately \$323,500 in expenses in connection with this offering.

(3) The underwriters also may purchase up to an additional shares at the public offering price, less the sales load, within 45 days from the date of this prospectus to cover over-allotments. If all such shares are purchased, the total public offering price will be \$, the total sales load will be

\$ Other Position(s) Directorships Held with Term of Office/ Held by Name (Year Born) Registrant Time of Service Principal Occupations During Past Five Years Director/Officer

James C. Baker
(born 1972)

Vice President Elected annually/served since June 2005 Mr. Baker has been a Managing Director of Kayne Anderson since December 2004. From April 2004 to December 2004, he was a and the total proceeds, before expenses, to us will be \$.

The underwriters expect to deliver the shares to purchasers on or about , 2005.

Citigroup
RBC Capital Markets
, 2005

UBS Investment Bank
Sanders Morris Harris

Table of Contents

(continued from previous page)

We are managed by Kayne Anderson Capital Advisors, L.P. (Kayne Anderson), a leading investor in MLPs. As of August 31, 2005, Kayne Anderson managed approximately \$4.8 billion, including approximately \$2.5 billion in MLPs and other Midstream Energy Companies.

Our currently outstanding shares of common stock are, and the shares offered in this prospectus will be, listed on the New York Stock Exchange under the symbol KYN . The net asset value of our common stock at the close of business on , 2005 was \$ per share, and the last sale price of our common stock on the New York Stock Exchange on such date was \$. See Market and Net Asset Value Information at page 22.

On March 28, 20 Director in Planning and Analysis at El Paso Corporation. Prior to that, Mr. Baker worked in the energy investment banking group at UBS Securities LLC as a Director from 2002 to 2004 and as an Associate Director from 2000 to 2002. Prior to joining UBS in 2000, Mr. Baker was an Associate in the energy investment banking group at PaineWebber Incorporated. None

(1) Due to her ownership of securities issued by one of the underwriters in this offering, Ms. Costin is expected to be treated as an interested person of Kayne Anderson MLP Investment Company, as defined in the 1940 Act, during and until the completion of this offering and, in the future, may be treated as an interested person during subsequent offerings of our securities if the relevant offering is underwritten by the underwriter in which Ms. Costin owns securities.

(2) The investment adviser to the Kayne Anderson Rudnick Mutual Funds, Kayne Anderson Rudnick Investment Management, LLC, may be deemed an affiliate of Kayne Anderson.

(3) Mr. McCarthy is an interested person of Kayne Anderson MLP Investment Company by virtue of his employment relationship with Kayne Anderson, our investment adviser.

Under our Charter, our Directors are divided into three classes. Each class of Directors will hold office for a three year term. However, the initial directors of the three classes have initial terms of one, two and three years, respectively, and the initial directors will hold office until their successors are duly elected and qualify. At each annual meeting of our stockholders, the successors to the class of Directors whose terms expire at such meeting will be elected to hold office for a term expiring at the annual meeting of stockholders held in the third year following the year of their election. Each Director will hold office for the term to which he or she is elected and until his or her successor is duly elected and qualifies. Additional information regarding our Board and its committees, is set forth under Management in our statement of additional information.

Investment Adviser

Kayne Anderson is our investment adviser. Kayne Anderson also is responsible for managing our business affairs and providing certain clerical, bookkeeping and other administrative services. Kayne Anderson is a California limited partnership and an investment adviser registered with the SEC under the Investment Advisers Act of 1940, as amended. Kayne Anderson has one general partner, Kayne Anderson Investment Management, Inc., and a number of individual limited partners. Kayne Anderson Investment Management, Inc. is a Nevada corporation controlled by Richard A. Kayne and John E. Anderson. Kayne Anderson s predecessor was established as an independent investment advisory firm in 1984. It has invested in MLPs since 1998.

Kayne Anderson s management of our portfolio is led by two of its Senior Managing Directors, Kevin S. McCarthy and J.C. Frey. Our portfolio managers draw on the research and analytical support of David L. LaBonte, a Senior Managing Director of Kayne Anderson, as well as the experience and expertise of other professionals at Kayne Anderson, including its Chief Executive Officer, Richard Kayne, and its President and Chief Investment Officer, Robert V. Sinnott, as well as Richard J. Farber, James C. Baker and Stephen Smith.

Kevin S. McCarthy is our Chief Executive Officer. He is also the Chief Executive Officer of Kayne Anderson Energy Total Return Fund, Inc. (KYE) and a Senior Managing Director of Kayne Anderson. Mr. McCarthy joined

Kayne Anderson in June 2004 from UBS Securities LLC where he was global head of energy. From November 2000 to May 2004, he had senior responsibility for all of UBS energy investment

56

Table of Contents

banking activities, including direct responsibility for securities underwriting and mergers and acquisitions in the MLP industry. Mr. McCarthy was with UBS Securities from 2000 to 2004. From July 1997 to November 2000, Mr. McCarthy led the energy investment banking activities of PaineWebber Incorporated. From July 1995 to March 1997, he was head of the Energy Group at Dean Witter Reynolds. 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.

J.C. Frey is a Senior Managing Director of Kayne Anderson. He serves as portfolio manager of Kayne Anderson's funds investing in MLP securities, including service as a co-portfolio manager, Vice President, Assistant Secretary and Assistant Treasurer of KYE. 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. 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.

Richard A. Kayne is Chief Executive Officer of Kayne Anderson, its affiliated investment adviser, Kayne Anderson Rudnick Investment Management, LLC, and its affiliated broker-dealer, KA Associates, Inc. He began his career in 1966 as an analyst with Loeb, Rhodes & Co. in New York. Prior to forming Kayne Anderson's predecessor in 1984, Mr. Kayne was a principal of Cantor Fitzgerald & Co., Inc., where he managed private accounts, a hedge fund and a portion of firm capital. Mr. Kayne is a trustee of and the former Chairman of the Investment Committee of the University of California at Los Angeles Foundation, and is a trustee and Co-Chairman of the Investment Committee of the Jewish Community Foundation of Los Angeles. He earned a BS degree in Statistics from Stanford University in 1966 and an MBA degree from UCLA's Anderson School of Management in 1968.

Robert V. Sinnott is President, Chief Investment Officer and Senior Managing Director of Energy Investments of Kayne Anderson. Mr. Sinnott is a member of the Board of Directors of Plains All American Pipeline, LP. He joined Kayne Anderson in 1992. From 1986 to 1992, Mr. Sinnott was vice president. In 2005, we issued three series of auction rate senior notes due in 2045, in an aggregate principal amount of \$260 million (Senior Notes). The Senior Notes are rated Aaa and AAA by Moody's Investors Service Inc. (Moody's) and Fitch Ratings (Fitch), respectively. The aggregate principal amount of the Senior Notes represented approximately 19.5% of our total assets as of August 31, 2005. On April 12, 2005, we issued an aggregate amount of \$75 million of auction rate preferred stock (ARP Shares). The ARP Shares are rated Aa and AA by Moody's and Fitch, respectively. The aggregate amount of ARP Shares represented 5.6% of our total assets as of August 31, 2005.

Our common stock is junior in liquidation and distribution rights to the Senior Notes and the ARP Shares. The issuance of debt and preferred stock, including the Senior Notes and the ARP Shares, represent the leveraging of our common stock. The issuance of additional common stock offered by this prospectus will enable us to increase the aggregate amount of our leverage. See Use of Leverage Effects of Leverage at page 52, Risk Factors Leverage Risk at page 29, and Description of Capital Stock at page 63.

We paid dividends to our common stockholders on January 14, 2005, April 15, 2005 and July 15, 2005 in the amounts of \$0.25, \$0.41 and \$0.415 per share, respectively. We intend to continue to pay quarterly dividends to our common stockholders. On September 13, 2005, we declared a quarterly dividend of \$0.42 per share payable on October 14, 2005 to common stockholders of record on October 5, 2005, with an ex-dividend date of October 3, 2005. Our dividends will be treated as a taxable dividend to our common stockholders to the extent of our current or accumulated earnings and profits. To the extent that dividends to a stockholder exceed our earnings and profits, a stockholder's basis in our common stock will be reduced and, if a stockholder has no further basis in our shares, a stockholder will report any excess as capital gain. As with any investment, you should consult your own tax professional about your particular consequences of investing in our common stock. See Dividends at page 39 and Tax Matters at page 70.

We are treated as a corporation for federal income tax purposes and, as a result, unlike most investment companies, we are subject to corporate income tax to the extent we recognize taxable income. As a partner in MLPs, we have to report our allocable share of each MLP's taxable income in computing our taxable income, whether or not

we actually receive any cash from such MLP. However, MLPs are not subject to corporate income taxes and, as a result, can generally pay distributions at a higher rate to their partners. See Tax Matters at page 70.

Shares of closed-end investment companies frequen and senior securities officer of Citibank s Investment Banking Division, concentrating in high-yield corporate buyouts and restructuring opportunities. From 1981 to 1986, he served as director of corporate finance for United Energy Resources, a pipeline company. Mr. Sinnott began his career in the financial industry in 1976 as a vice president and debt analyst for Bank of America in its oil and gas finance department. Mr. Sinnott graduated from the University of Virginia in 1971 with a BA degree in Economics. In 1976, he received an MBA degree in Finance from Harvard University.

David L. LaBonte is a Senior Managing Director of Kayne Anderson, responsible for coordinating and providing research and analytical support in the areas of MLPs and other Midstream Energy Company investments. Mr. LaBonte recently joined Kayne Anderson from Citigroup s Smith Barney unit, where he was a Managing Director in the U.S. Equity Research Division responsible for providing research coverage of MLPs and other Midstream Energy Companies. Mtly trade at a discount to their net asset value. If our common stock trades at a discount to our net asset value, the risk of loss may increase for purchasers in this offering. This risk may be greater for investors who expect to sell their common stock in a relatively short period after completion of the public offering. See Risk Factors Market Discount From Net Asset Value Risk at page 29.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

TABLE OF CONTENTS

| | Page |
|---|------|
| Richard J. Farber is a Senior Managing Director of Kayne Anderson. Mr. Farber is responsible for proprietary trading and hedging, and serves as Portfolio Manager for arbitrage strategies. He also provides analytical support in the MLP area. Mr. Farber joined Kayne Anderson in 1994. From 1990 to 1994, Mr. Farber was vice president of Lehman Brothers Commodity Risk | |

Management Group, specializing in energy trading. He also worked at Lehman Brothers as an institutional equity trader from 1988 to 1990. From 1985 to 1986, Mr. Farber was employed by Salomon Brothers, Inc. as a mortgage bond analyst. Mr. Farber graduated from Franklin and Marshall College in 1982 with a BA degree in Economics. In 1988, he received his MBA degree in Finance from UCLA's Anderson School of Management.

57

Table of Contents

James C. Baker is a Managing Director of Kayne Anderson, providing analytical support in the MLP area. He also serves as our Vice President and as Vice President of KYE. Prior to joining Kayne Anderson in 2004, Mr. Baker was a Director in the energy investment banking group at UBS Securities LLC. At UBS, he focused on securities underwriting and mergers and acquisitions in the MLP industry. Prior to joining UBS in 2000, Mr. Baker was an Associate in the energy investment banking group at PaineWebber Incorporated. He received a BBA degree in Finance from the University of Texas at Austin in 1995 and an MBA degree in Finance from Southern Methodist University in 1997.

Stephen Smith is a Managing Director of Kayne Anderson. Mr. Smith provides analytical support

in the MLP area and is responsible for client relations. Mr. Smith joined Kayne Anderson in 2002. From 2000 to 2002, Mr. Smith was an Associate with Goldman, Sachs, Inc.'s Telecommunications, Media and Entertainment investment banking group. In 1999, he was a summer associate in corporate finance with Salomon Smith Barney while attending graduate business school. From 1997 to 1998, Mr. Smith was an analyst with Kayne Anderson. He received a BBA degree in Marketing and Finance from the University of Texas at Austin in 1993 and an MBA degree in Finance from UCLA's Anderson School of Management in 2000.

Sumit Mathai is a research analyst responsible for MLPs and other Midstream Energy Company securities. Prior to joining Kayne Anderson in 2004, Mr. Mathai was an associate with Citicorp in the Energy Global

Relationship Bank and an analyst with Salomon Smith Barney in Energy Investment Banking and Acquisition Finance from 1997 to 2004. In 1997, Mr. Mathai was an analyst with Coastal Power Corporation focusing on greenfield power projects and acquisitions in South Asia. Mr. Mathai received a BA degree in Economics in 1997 and an MBA degree in 2004, both from Rice University.

Our statement of additional information provides information about our portfolio managers compensation, other accounts managed by them, and their ownership of securities issued by us.

Kayne Anderson's principal office is located at 1800 Avenue of the Stars, Second Floor, Los Angeles, California 90067. For additional information

concerning Kayne Anderson, including a description of the services to be provided by Kayne Anderson, see

Investment Management Agreement below.

Investment Management Agreement

Pursuant to an investment management agreement (the Investment Management Agreement) between us and Kayne Anderson, we pay Kayne Anderson a basic management fee at an annual rate of 1.75% of our average total assets, adjusted upward or downward (by up to 1.00% of our average total assets), depending on the extent to which, if any, our investment performance for the relevant performance period exceeds or trails our Benchmark over the same period. Our Benchmark is the total return (capital appreciation and reinvested dividends) of the Standard & Poor's 400 Utilities Index

plus 600 basis
points (6.00%).
Our Benchmark for
the 12-month
period ended
September 30,
2005 was 37.2%.

58

Table of Contents

The
 followinowrap
 style="border-top:
 1pt solid
 #000000;">

| | |
|--|----|
| <u>Prospectus Summary</u> | 1 |
| <u>The Offering</u> | 8 |
| <u>Kayne Anderson MLP Investment Company</u> | 12 |
| <u>Fees and Expenses</u> | 13 |
| <u>Financial Highlights</u> | 16 |
| <u>Selected Financial Results</u> | 17 |
| <u>Schedule of Investments</u> | 18 |
| <u>Market and Net Asset Value Information</u> | 22 |
| <u>Use of Proceeds</u> | 23 |
| <u>Capitalization</u> | 24 |
| <u>Risk Factors</u> | 25 |
| <u>Forward-Looking Statements</u> | 38 |
| <u>Dividends</u> | 39 |
| <u>Dividend Reinvestment Plan</u> | 40 |
| <u>Investment Objective and Policies</u> | 41 |
| <u>Use of Leverage</u> | 51 |
| <u>Management</u> | 54 |
| <u>Net Asset Value</u> | 61 |
| <u>Description of Capital Stock</u> | 63 |
| <u>Description of Senior Notes and Borrowings</u> | 65 |
| <u>Our Structure: Common Stock Repurchases and Change in Our Structure</u> | 68 |
| <u>Tax Matters</u> | 70 |
| <u>Underwriting</u> | 73 |
| <u>Transfer Agent and Dividend-Paying Agent</u> | 75 |
| <u>Administrator, Custodian and Fund Accountant</u> | 75 |
| <u>Legal Opinions</u> | 75 |
| <u>Table of Contents of Our Statement of Additional Information</u> | 76 |
| <u>EX-99.H.1</u> | |
| <u>EX-99.L</u> | |
| <u>EX-99.N</u> | |

This prospectus sets forth concisely the information about us that a prospective investor ought to know before investing. You should read this prospectus before deciding whether to invest and retain it for future reference. A statement of additional information, dated _____, 2005 (SAI), containing additional information about us, has been filed with the Securities and Exchange Commission (SEC) and is incorporated by reference in its entirety into this prospectus. You may request a free copy of our stockholder reports and our SAI, the table of contents of which is on page 76 of this prospectus, by calling (877) 657-3863/MLP-FUND, by accessing our web site (<http://www.kaynemp.com>), or by writing to us. You may also obtain copies of these documents (and other information regarding us) from the SEC 's web site (<http://www.sec.gov>).

**Benchmark
(Standard &**

| Year | Standard & Poor's 400 Utilities Index | Poor's 400 Utilities Index plus 6.00%) |
|-------------------------------------|---------------------------------------|--|
| 1995 | 31.3% | 37.3% |
| 1996 | 9.2% | 15.2% |
| 1997 | 29.6% | 35.6% |
| 1998 | 7.6% | 13.6% |
| 1999 | (11.7)% | (5.7)% |
| 2000 | 55.9% | 61.9% |
| 2001 | (9.3)% | (3.3)% |
| 2002 | (11.5)% | (5.5)% |
| 2003 | 26.2% | 32.2% |
| 2004 | 18.9% | 24.9% |
| Average annual return, 1995 to 2004 | 14.6% | 20.6% |

Source: Bloomberg.

(1) Returns for the period shown are annualized estimates.

Calculation of the Performance Adjustment to the Management Fee. Each 0.01% of difference of our performance compared to the performance of the Benchmark is multiplied by a performance adjustment of 0.002%, up to a maximum adjustment of 1.00% (as an annual rate). Thus, an annual excess performance difference of 5.00% or more between our performance and the Benchmark would result in an annual maximum performance adjustment of 1.00%. This formula requires that our performance exceed the performance of the Benchmark before any upward adjustment is made to the management fee. If our performance is below the performance of the Benchmark, the management fee would be adjusted downward.

Here are examples of how the adjustment would work (using annual rates):

| Performance of our Portfolio (1) | Benchmark (Standard & Poor's 400 Utilities Index plus 6.00%) | Basic Management Fee | Performance Fee Adjustment | Total Management Fee |
|----------------------------------|--|----------------------|----------------------------|----------------------|
| 20.00% or higher | 15.00% | 1.75% | 1.00% | 2.75% |
| 18.00% | 15.00% | 1.75% | 0.60% | 2.35% |
| 15.00% | 15.00% | 1.75% | 0.00% | 1.75% |
| 12.00% | 15.00% | 1.75% | (0.60)% | 1.15% |
| 10.00% or lower | 15.00% | 1.75% | (1.00)% | 0.75% |

(1) We calculate our performance for a given period on a per share basis as a fraction, the numerator of which is the sum of (W) our net asset value at the end of the period minus our net asset value at the beginning of the period, (X) any dividends or distributions paid by us during the period, (Y) taxes paid during or accrued (on a net basis) for the period, and (Z) management fees paid for the period, and the denominator of which is our net asset value at the beginning of the period.

The performance record for the Benchmark is based on the change in value of the Benchmark during the relevant performance period. Until we have completed our first full fiscal year, for purposes of calculating the performance adjustment, our initial net asset value is calculated net of the underwriting discount of our initial public offering of common stock.

Table of Contents

Because the performance adjustment is based on a comparison of our performance with the Benchmark, the controlling factor (regarding such adjustment) is not whether our performance is up or down, but whether it is up or down relative to the Benchmark. Moreover, our comparative investment record is based solely on the relevant performance period without regard to the cumulative performance over a longer period. It is possible for high past performance to result in a management fee payment by us that is higher than current performance would otherwise produce.

For the period beginning with the commencement of our operations through the end of our first 12 months of operations (September 30, 2005), on a quarterly fiscal basis we paid Kayne Anderson a minimum management fee calculated at an annual DIV>

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock offered by this prospectus. You should carefully read the entire prospectus, including the documents incorporated by reference into it, particularly the section entitled Risk Factors beginning on page 25. Except where the context suggests otherwise, the terms we, us, and our refer to Kayne Anderson MLP Investment Company; Kayne Anderson refers to Kayne Anderson Capital Advisors, L.P.; midstream energy assets refers to 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; MLPs refers to energy-related master limited partnerships, limited liability companies treated as partnerships, and their affiliates; and Midstream Energy Companies means (i) MLPs and (ii) other companies that, as their principal business, operate midstream energy assets.

What is Kayne Anderson MLP Investment Company?

Kayne Anderson MLP Investment Company is a non-diversified, closed-end investment company registered under the Investment Company Act of 1940, as amended (the 1940 Act), which commenced investment activities on September 28, 2004. Our common stock is traded on the New York Stock Exchange (the NYSE) under the symbol KYN. See Description of Capital Stock on page 63.

We completed our initial public offering of common stock on September 28, 2004. After the payment of offering expenses and underwriting discounts, we received approximately \$711 million from the proceeds of the initial public offering and after subsequent exercises by the underwriters of their over-allotment option, the aggregate net proceeds were approximately \$786 million. On March 28, 2005 and April 12, 2005, we completed offerings of the Senior Notes and the ARP Shares, respectively. After the payment of offering expenses and underwriting discounts, we received a total of approximately \$331 million in net proceeds from the issuance of the Senior Notes and the ARP Shares. We paid dividends to our common stockholders on January 14, 2005, April 15, 2005 and July 15, 2005 in the amounts of \$0.25, \$0.41 and \$0.415 per share, respectively. We intend to continue to pay quarterly dividends to our common stockholders. On September 13, 2005, we declared a quarterly dividend of \$0.42 per share payable on October 14, 2005 to common stockholders of record on October 5, 2005, with an ex-dividend date of October 3, 2005. Because the cash distributions received from the MLPs in our portfolio are expected to exceed the earnings and profits associated with owning such MLPs, we expect that a significant portion of our dividends will be paid from sources other than our current or accumulated earnings, income or profits. The portion of the dividend which exceeds our current or accumulated earnings and profits will be treated as a return of capital to the extent of a stockholder's basis in our common stock, then as capital gain. See Tax Matters at page 70.

Since commencing investment activities on September 28, 2004, we have reported our per share net asset value as of the end of each month as set forth in the following table. Through September 30, 2005 our per share net asset value, together with the dividends paid to our stockholders on January 14, 2005, April 15, 2005, and July 15, 2005 increased by 17.7% from our initial per share net asset value of \$23.70 (after deduction of offering expenses and underwriting discounts).

Table of Contents

| Valuation Date | Net Asset Value | Adjusted Net Asset Value(2) |
|-----------------------|------------------------|------------------------------------|
| September 28, 2004(1) | \$ 23.70 | \$ 23.70 |
| October 31, 2004 | 23.73 | 23.73 |
| November 30, 2004 | 23.91 | 23.91 |
| December 31, 2004 | 24.25 | 24.25 |
| January 31, 2005 | 25.03 | 25.28 |
| February 28, 2005 | 25.27 | 25.52 |
| March 31, 2005 | 24.90 | 25.15 |
| April 30, 2005 | 24.92 | 25.58 |
| May 31, 2005 | 25.19 | 25.85 |
| June 30, 2005 | 26.01 | 26.67 |
| July 31, 2005 | 26.86 | 27.94 |
| August 31, 2005 | 26.63 | 27.71 |
| September 30, 2005 | 26.74 | 27.82 |

(1) The initial public offering price of our common stock was \$25.00 per share. After the deduction of offering expenses and underwriting discounts, our beginning per share net asset value was \$23.70.

(2) Adjusted net asset value equals our net asset value plus cumulative dividends paid.

Section 19(a) of the 1940 Act and Rule 19a-1 thereunder require us to provide a written statement accompanying payment from any source other than our income that adequately discloses the source or sources of such payment. Thus, if our capital were the source of a distribution, and the payment amounted to a return of capital, we would be required to provide written notice to that effect. Nevertheless, stockholders who periodically receive distributions from us may be under the impression that such payments are made from our income, when, in fact, they are not. Accordingly, stockholders should carefully read any written disclosure accompanying a distribution and should not assume that the source of payment is our income.

Our investment objective is to obtain a high after-tax total return by investing at least 85% of our total assets in MLPs and other Midstream Energy Companies. We also must comply with the SEC's rule regarding investment company names, which requires us, under normal market conditions, to invest at least 80% of our total assets in MLPs so long as MLP is in our name.

What are our portfolio investments?

Our investments in the securities of MLPs and other Midstream Energy Companies are principally in equity securities issued by MLPs. Generally, we invest in equity securities of (i) master limited partnerships, including preferred, common and subordinated units and general partner interests, (ii) owners of such interests in master limited partnerships, and (iii) other Midstream Energy Companies. Finally, we may also, from time to time, invest in debt securities of MLPs and other Midstream Energy Companies with varying maturities of up to 30 years.

Under normal market conditions, we intend to invest at least 50% of our total assets in publicly traded (i.e., freely tradable) securities of MLPs and other Midstream Energy Companies and up to 50% (but not more than 60%) of our total assets in unregistered or otherwise restricted securities of MLPs and other Midstream Energy Companies, including securities issued by private companies. We may invest up to 15% of our total assets in any single issuer.

We may invest up to 20% of our total assets in debt securities of MLPs and other Midstream Energy Companies, including below investment grade debt securities rated, at the time of investment, at least B3 by Moody's Investors Service, Inc., B- by Standard & Poor's or Fitch Ratings, or, if unrated, determined by Kayne Anderson to be of comparable quality. In addition, up to one-quarter of our permitted investments in debt securities (or up to 5% of our

total assets) may include unrated debt securities of private companies.

On a limited basis, we may also use derivative investments to hedge against interest rate and market risks. We may also utilize short sales to hedge such risks and as part of short sale investment strategies.

Table of Contents

What is the composition of our investment portfolio?

As of May 31, 2005, we had invested approximately \$1,105 million in securities of MLPs and other Midstream Energy Companies out of our total assets of \$1,244 million. As of that date, the Company's portfolio consisted of \$1,011 million in freely tradable securities (including \$514 million in restricted securities that are now freely tradable) and \$224 million in restricted securities. As shown in the following chart, approximately 69.4% of our net investment position consisted of equity securities of pipeline MLPs. The next largest component of our portfolio, totaling 10.8% of our net investment position, consisted of equity securities of propane MLPs. As of May 31, 2005, our net investment position was \$1,232 million (net investment position is equal to long positions less short positions). For more detail regarding our portfolio investments, see Schedule of Investments beginning on page 18.

The restricted securities in our portfolio as of August 31, 2005 were purchased in five separate transactions and are expected to become freely tradable over the next seven months. The following table outlines the details of each of these investments, as well as four transactions in which we purchased restricted securities which became freely tradable.

| | |
|-------------------|---|
| Fair Value | <p>rate of 0.75%. The basic management fee rate of 1.75% plus or minus any performance adjustment was calculated at the end of our first 12 months of operations based on our performance to that date from the commencement of our operations. We then calculated the total management fee based on the average total assets for the prior 12 months, subtracted the minimum management fee, and paid any balance of the management fee to Kayne Anderson. After this initial</p> |
|-------------------|---|

period, the basic management fee and the performance adjustment will be calculated and paid quarterly beginning with the quarter ending November 30, 2005, using a rolling 12-month performance period. Management fees in excess of those paid will be accrued monthly.

For purposes of calculation of the management fee, the average total assets for the prior 12 months shall be determined on the basis of the average of our total assets for each month in such period. 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 (or as of the commencement of operations for the initial period if a partial month). Our total assets shall be equal to our average monthly gross asset value (which includes assets attributable to or proceeds from our use of preferred stock, commercial paper or notes issuances and other borrowings), minus the sum of our accrued and unpaid dividends on any outstanding common stock and accrued and unpaid dividends on any outstanding preferred stock and accrued liabilities (other than liabilities associated with borrowing or leverage by us and any accrued taxes). Liabilities associated with borrowing or leverage include the principal amount of any borrowings, commercial paper or notes that we issue, 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 us.

In addition to Kayne Anderson's management fee, we pay all other costs and expenses of our operations, such as compensation of our directors (other than those affiliated with Kayne Anderson), custodian, transfer agency, administrative, accounting and dividend disbursing expenses, legal fees, leverage expenses, expenses of independent auditors, expenses of personnel including those who are affiliates of Kayne Anderson reasonably incurred in connection with arranging or structuring portfolio transactions for us, expenses of repurchasing our securities, expenses of preparing, printing and distributing stockholder reports, notices, proxy statements and reports to governmental agencies, and taxes, if any.

Because Kayne Anderson's fee is based upon a percentage of our total assets, Kayne Anderson's fee is likely to be higher to the extent we employ leverage. As noted, we have issued Senior Notes and ARP Shares forms of leverage, in a combined amount equal to approximately 25.1% of our total assets as of August 31, 2005. Assuming we use leverage in the amount equal to 30% of our total assets (after their issuance), the management fee rates payable to Kayne Anderson may be as low as 1.17% or as high as 4.30% of net assets attributable to common stock. See Fees and Expenses at page 13.

Table of Contents

NET ASSET VALUE

We determine our net asset value as of the close of regular session trading on the NYSE (normally 4:00 p.m. Eastern time) no less frequently than the last business day of each month, and make our net asset value available for publication monthly. Net asset value is computed by dividing the value of all of our assets (including accrued interest and dividends), less all of our liabilities (including accrued expenses, dividends payable, current and deferred and other accrued income taxes, and any borrowings) and the liquidation value of any outstanding preferred stock, by the total number of shares outstanding.