Kayne Anderson MLP Investment CO Form N-PX August 27, 2009

OMB APPROVAL

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM N-PX

ANNUAL REPORT OF PROXY VOTING RECORD OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Kayne Anderson MLP Investment Company

(Exact name of registrant as specified in charter)

717 Texas Avenue, Suite 3100 Houston, Texas 77002

(Address of principal executive offices) (Zip code)

David J. Shladovsky, Esq.

KA Fund Advisors, LLC

717 Texas Avenue, Suite 3100

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, 2009

Form N-PX is to be used by a registered management investment company, other than a small business investment company registered on Form N-5 (ss.ss. 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than August 31 of each year, containing the registrant's proxy voting record for the most recent twelve-month period ended June 30, pursuant to section 30 of the Investment Company Act of 1940 and rule 30b1-4 thereunder (17 CFR 270.30b1-4). The Commission may use the information provided on Form N-PX in its regulatory, disclosure review, inspection, and policymaking roles.

Date of reporting period: July 1, 2008 - June 30, 2009

A registrant is required to disclose the information specified by Form N-PX, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-PX 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 the 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. ss. 3507.

ITEM 1. PROXY VOTING RECORD.

Disclose the following information for each matter relating to a portfolio security considered at any shareholder meeting held during the period covered by the report and with respect to which the registrant was entitled to vote:

- (a) The name of the issuer of the portfolio security;
- (b) The exchange ticker symbol of the portfolio security;
- (c) The Council on Uniform Securities Identification Procedures ("CUSIP") number for the portfolio security;
- (d) The shareholder meeting date;
- (e) A brief identification of the matter voted on;
- (f) Whether the matter was proposed by the issuer or by a security holder;
- (g) Whether the registrant cast its vote on the matter;
- (h) How the registrant cast its vote (e.g., for or against proposal, or abstain; for or withhold regarding election of directors); and
- (i) Whether the registrant cast its vote for or against management.

SIGNATURES

[See General Instruction F]

Pursuant to the requirements of 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.

(Registrant) Kayne Anderson	MLP Investment Company
By (Signature and Title)* /s/	Kevin S. McCarthy
	Kevin S. McCarthy, Chairman of the Board of Directors,

President and Chief Executive Officer

Date August 27, 2009

 * Print the name and title of each signing officer under his or her signature.

ISSUER	SYMBOL	CUSIP	MEETING DATE	MATTER:
CAPITAL PRODUCT PARTNERS L.P.	CPLP	Y11082107	7/25/2008	ELECT: Robert Curt
				APPROVE: amendment to the Company's first amended and restated agreement of limited partnership establishing that, if a quorum has not been obtained after two attempts at any meeting of limited partners of the company, then any votes present at the 3rd convened meeting will be deemed to constitute a quorum
ENERGY TRANSFER PARTNERS, L.P.	ETP	29273R109	12/16/2008	APPROVE: the terms of the Energy Transfer Partners, L.P. 08 long-term incentive plan, which provides for awards of options to purchase the partnership's common units, awards of the partnerships restricted units, awards of the partnership's phantom units, awards of the partnership's common units, all as more fully described in the proxy statement
NAVIOS MARITIME PARTNERS L.P.	NMM	Y62267102	12/16/2008	ELECT: Leonidas Korres Efstathios Loizos Robert Pierot John Karakadas
				RATIFY: the appointment of PricewaterhouseCoopers LLP as the company's independent public accountants for the FY ending 12/31/08
BUCKEYE PARTNERS, L.P.	BPL	118230101	1/30/2009	APPROVE: the terms of the 2009 1-t

				incentive plan of Buckeye Partners, L.P. as described in the consent solicitation statement
PENN VIRGINIA RESOURCES PARTNERS, L.P.	PVR	707884102	1/14/2009	APPROVE: amendment to the Penn Virginia Resource GP LLC fourth amended and restated long-term incentive plan to increase the number of common units issuable there under from 600K to 3MM
MAGELLAN MIDSTREAM PARTNERS L.P.	MMP	559080106		ELECT: George O'Brien Jr.
MAGELLAN MIDSTREAM HOLDINGS, L.P.	MGG	55907R108		
CROSSTEX ENERGY, L.P.	XTEX	22765U102	5/7/2009	APPROVE: the Crosstex Energy GP, LLC amended and restated long-term incentive plan (inc. the increase in the number of units available for issuance thereunder)
				APPROVE: amendment to the Crosstex Energy GP, LLC amended and restated long-term incentive plan to allow for an option exchange program for employees other than directors and executive officers
MARKWEST ENERGY PARTNERS, L.P.	MWE	570759100	6/2/2009	ELECT: Frank Semple John Fox Keith Bailey Michael Beatty Charles Dempster Donald Heppermann William Kellstrom Anne Fox Mounsey William Nicoletti Donald Wolf
				RATIFY: Deloitte & Touche LLP as the partnership's independent registered public accountants for FYE 12/31/09
ATLAS ENERGY RESOURCES, LLC	ATN	049303100	6/4/2009	

Richard Weber Brice Wolf

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