Kayne Anderson MLP Investment CO Form N-PX August 15, 2011

OMB APPROVAL

OMB Number: 3235-0582

Expires: March 31, 2012

Estimated average burden hours per response 9.6

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM N-PX

ANNUAL REPORT OF PROXY VOTING RECORD OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-21593

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: (310) 284-6438

Date of fiscal year end: November 30

Date of reporting period: July 1, 2010 - June 30, 2011

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.

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; Whether the registrant cast its vote on the matter; (g) (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,

Date August 15, 2011 President and Chief Executive Officer

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

Item 1 – Proxy Voting Record – Attached on behalf of Kayne Anderson MLP Investment Company

	_					_		
					Proposed by (I)ssuer			
			Meeting		or	Vote	How	For/Against
Issuer	Symbol	CUSIP	Date	Matter:	(S)hrhldr		Voted	Mgmt
CAPITAL PRODUCT	·							·
PARTNERS L.P.	CPLP Y	11082107	7/22/2010	ELECT:	I	YES	FOR	FOR
				CLASS III DIRECTOR UNTIL THE 2013 ANNUAL MEETING NOMINEE: A. KEITH FORMAN				
				ELECT: CLASS III DIRECTOR UNTIL THE 2013 ANNUAL MEETING NOMINEE: A. EVANGELOS G. BAIRACTARIS	I	YES	FOR	FOR
WILLIAMS								
PIPELINE	WW.77.0	C05017102	0/21/2010	A DDD OVE 6 A DODE	T	MEG	EOD	FOR
PARTNERS L.P.	VV IVIZ Y	0/30K103	0/31/2010	APPROVE & ADOPT: AGREEMENT AND PLAN OF MERGER DATED AS OF MAY 24, 2010 BY AND AMONG WILLIAMS PARTNERS L.P., WILLIAMS PARTNERS GP LLC, WILLIAMS PARTNERS OPERATING LLC, WPZ OPERATING COMPANY MERGER SUB LLC, WILLIAMS PIPELINE PARTNERS L.P. AND WILLIAMS PIPELINE GP, LLC, AS IT MAY BE AMENDED FROM TIME TO TIME AND THE MERGER SUB WITH AND INTO WILLIAMS PIPELINE PARTNERS L.P. CONTEMPLATED	I	TES	FOR	FOR

BY THE MERGER AGREEMENT.

EAGLEROGY							
EAGLE ROCK ENERGY							
PARTNERS, L.P.	EROC	26985R104 9/17/2010					
			THE TERMS OF THE AMENDED AND RESTATED EAGLE ROCK ENERGY PARTNERS, L.P. LONG TERM INCENTIVE PLAN	I	YES	FOR	FOR
BUCKEYE GP							
HOLDINGS L.P.	BGH	118167105 11/16/201					
			THE FIRST AMENDED AND RESTATED AGREEMENT AND PLAN OF MERGER BY AND AMONG BUCKEYE PARTNERS, L.P., BUCKEYE GP LLC, THE GENERAL PARTNER OF THE PARTNERSHIP, GRAND OHIO, LLC, BUCKEYE GP HOLDINGS L.P. AND MAINLINE MANAGEMENT LLC, THE MERGER AND THE TRANSACTIONS CONTEMPLATED THEREBY	I	YES	FOR	FOR
BUCKEYE							
	BPL	118230101 11/17/201	0APPROVE:				
			THE FIRST AMENDED AND RESTATED AGREEMENT AND PLAN OF MERGER BY AND AMONG BUCKEYE PARTNERS, L.P., BUCKEYE GP LLC, THE GENERAL PARTNER OF THE PARTNERSHIP, GRAND OHIO, LLC, BUCKEYE GP HOLDINGS L.P. AND MAINLINE MANAGEMENT LLC,	I	YES	FOR	FOR

Edgar Filing: Kayne Anderson MLP Investment CO - Form N-PX DATED AS OF AUGUST 18, 2010 AND THE TRANSACTIONS **CONTEMPLATED** THEREBY, ALL AS **MORE FULLY** DESCRIBED IN THE PROXY STATEMENT Approval: THE AMENDED AND **RESTATED** AGREEMENT OF LIMITED PARTNERSHIP OF THE PARTNERSHIP I YES **FOR FOR INERGY** HOLDINGS, L.P. NRGP 45661Q107 11/2/2010 APPROVE: FIRST AMENDED AND Ι YES **FOR FOR RESTATED** AGREEMENT AND PLAN OF MERGER BY

AND AMONG INERGY, L.P., INERGY GP, LLC, THE MANAGING GENERAL PARTNER OF INERGY, HOLDINGS, INERGY HOLDINGS GP, LLC, THE GENERAL PARTNER OF HOLDINGS, NRGP LIMITED PARTNER, LLC, A WHOLLY **OWNED SUBSIDIARY** OF HOLDINGS GP AND NRGP MS, LLC A WHOLLY OWNED **SUBSIDIARY OF HOLDINGS GP DATED** AS OF SEPTEMBER 3, 2010, AS SUCH AGREEMENT MAY BE AMENDED FROM TIME TO TIME, PURSUANT TO WHICH, AMONG OTHER THINGS, MERGERCO WILL MERGE WITH AND INTO HOLDINGS, THE

SEPARATE EXISTENCE OF MERGERCO WILL

	CEASE AND HOLDINGS WILL SURVIVE AND CONTINUE TO EXIST AS A DELAWARE LIMITED PARTNERSHIP, SUCH THAT IMMEDIATELY FOLLOWING CONSUMMATION OF THE MERGER, HOLDINGS GP WILL CONTINUE TO BE THE SOLE GENERAL PARTNER OF HOLDINGS, AND HOLDINGS GP AND NEW NRGP LP WILL REMAIN AS THE ONLY HOLDERS OF LIMITED PARTNER INTERESTS IN HOLDINGS.				
	TRANSACT:				
	OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE SPECIAL MEETING AND ANY ADJOURNMENT OF POSTPONEMENT THEREOF	I	YES	FOR	FOR
COPANO ENERGY, L.L.C. CPNO 217202100 11/17/20	CHANGES TO THE TERMS OF SERIES A CONVERTIBLE PREFERRED UNITS TO PROVIDE FOR FULL VOTING RIGHTS FOR SUCH UNITS AND FULL CONVERTIBILITY OF SUCH UNITS INTO COMMON UNITS ON A ONE-FOR-ONE BASIS AND THE ISSUANCE OF ADDITIONAL COMMON UNITS UPON CONVERSION OF SERIES A CONVERTIBLE PREFERRED UNITS	I	YES	FOR	FOR

PENN VIRGINIA GP HOLDINGS,							
L.P.	PVG	70788P105 2/16/2011	CONSIDER AND VOTE: ON THE APPROVAL AND ADOPTION OF (A) THE AGREEMENT AND PLAN OF MERGER BY AND AMONG PENN VIRGINIA RESOURCE PARTNERS, L.P., PENN VIRGINIA RESOURCE G.P., LLC, PVR RADNOR, LLC, PENN VIRGINIA GP HOLDINGS, L.P. AND PVG GP, LLC, THE GENERAL PARTNER OF HOLDINGS, (B) MERGER & (C) TRANSACTIONS CONTEMPLATED THEREBY, ALL AS MORE FULLY DESCRIBED IN THE PROXY STATEMENT.	I	YES	FOR	FOR
			CONSIDER AND VOTE: UPON ANY PROPOSAL THAT MAY BE PRESENTED TO ADJOURN THE PARTNERSHIP SPECIAL MEETING TO A LATER DATE, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IN THE EVENT THAT THERE ARE INSUFFICIENT VOTES IN FAVOR OF ANY OF THE FOREGOING PROPOSALS	I	YES	FOR	FOR
PENN VIRGINIA RESOURCE PARTNERS, L.P.	PVR	707884102 2/16/2011	CONSIDER AND VOTE:	I	YES	FOR	FOR
-,			ON THE APPROVAL AND ADOPTION OF (A) THE AGREEMENT AND PLAN OF MERGER BY				

AND AMONG PENN VIRGINIA RESOURCE PARTNERS, L.P., PENN VIRGINIA RESOURCE G.P., LLC, PVR RADNOR, LLC, PENN VIRGINIA GP HOLDINGS, L.P. AND PVG GP, LLC, THE GENERAL PARTNER OF HOLDINGS, (B) MERGER & (C) TRANSACTIONS **CONTEMPLATED** THEREBY, ALL AS MORE FULLY DESCRIBED IN THE PROXY STATEMENT. **FOR** CONSIDER AND VOTE: I YES **FOR** UPON THE APPROVAL AND ADOPTION OF THE FOURTH AMENDED AND **RESTATED** AGREEMENT OF LIMITED PARTNERSHIP OF THE PARTNERSHIP YES **CONSIDER AND VOTE: FOR FOR UPON ANY PROPOSAL** THAT MAY BE PRESENTED TO **ADJOURN THE** PARTNERSHIP SPECIAL MEETING TO A LATER DATE, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IN THE EVENT THAT THERE ARE **INSUFFICIENT VOTES** IN FAVOR OF ANY OF THE FOREGOING **PROPOSALS**

MAGELLAN MIDSTREAM

PARTNERS L.P. MMP 559080106 4/27/2011 ELECT: I YES FOR FOR

JAMES C. KEMPNER MICHAEL N. MEARS

			JAMES R. MONTAGUE				
			AMEND:	I	YES	FOR	FOR
			LONG TERM INCENTIVE PLAN				
			VOTE:	I	YES	FOR	FOR
			ON EXECUTIVE COMPENSATION				
			VOTE:	I	3YR	AGAINST	1 YEAR
			FREQUENCY OF VOTE TO APPROVE COMPENSATION OF EXECUTIVES				
ONEOK, INC.	OKE	682680103 5/25/201	1 ELECT: JAMES C. DAY	I	YES	FOR	FOR
			JULE H. EDWARDS				
			WILLIAM L. FORD				
			JOHN W. GIBSON				