

ClearBridge Energy MLP Fund Inc.
Form N-CSRS
July 25, 2012

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSR

**CERTIFIED SHAREHOLDER REPORT OF REGISTERED
MANAGEMENT INVESTMENT COMPANIES**

Investment Company Act file number 811-22405

ClearBridge Energy MLP Fund Inc.
(Exact name of registrant as specified in charter)

620 Eighth Avenue 49th Floor, New York, NY
(Address of principal executive offices)

10018
(Zip code)

Robert I. Frenkel, Esq.

Legg Mason & Co., LLC

100 First Stamford Place,

Stamford, CT 06902
(Name and address of agent for service)

Registrant's telephone number, including area code: (888) 777-0102

Date of fiscal year end: November 30

Date of reporting period: May 31, 2012

ITEM 1. REPORT TO STOCKHOLDERS.

The **Semi-Annual** Report to Stockholders is filed herewith.

May 31, 2012

Semi-Annual Report

**ClearBridge Energy MLP Fund Inc.
(CEM)**

INVESTMENT PRODUCTS: NOT FDIC INSURED • NO BANK GUARANTEE • MAY LOSE VALUE
--

II ClearBridge Energy MLP Fund Inc.

Fund objective

The Fund seeks to provide a high level of total return with an emphasis on cash distributions.

What's inside

Letter from the chairman	II
Investment commentary	III
Fund at a glance	1
Schedule of investments	2
Statement of assets and liabilities	4
Statement of operations	5
Statements of changes in net assets	6
Statement of cash flows	7
Financial highlights	8
Notes to financial statements	9
Additional shareholder information	19
Dividend reinvestment plan	20

Letter from the chairman

Dear Shareholder,

Edgar Filing: ClearBridge Energy MLP Fund Inc. - Form N-CSRS

We are pleased to provide the semi-annual report of ClearBridge Energy MLP Fund Inc. for the six-month reporting period ended May 31, 2012. Please read on for Fund performance information and a detailed look at prevailing economic and market conditions during the Fund's reporting period.

As always, we remain committed to providing you with excellent service and a full spectrum of investment choices. We also remain committed to supplementing the support you receive from your financial advisor. One way we accomplish this is through our website, www.lmcef.com. Here you can gain immediate access to market and investment information, including:

- Fund prices and performance,
- Market insights and commentaries from our portfolio managers, and
- A host of educational resources.

We look forward to helping you meet your financial goals.

Sincerely,

R. Jay Gerken, CFA

Chairman, President and Chief Executive Officer

June 29, 2012

Investment commentary

Economic review

The U.S. economy continued to grow over the six months ended May 31, 2012, albeit at an uneven pace. Looking back, U.S. gross domestic product (GDP)ⁱ growth, as reported by the U.S. Department of Commerce, was 1.8% in the third quarter of 2011. The economy then gathered some momentum late in 2011, as the Commerce Department reported that fourth quarter GDP growth was 3.0% the fastest pace since the second quarter of 2010. However, economic growth in the U.S. then moderated somewhat, as the Commerce Department reported that first quarter 2012 GDP growth was 1.9%.

Two factors constraining economic growth were the weak job market and continued troubles in the housing market. While there was some improvement during the reporting period, unemployment remained elevated. When the reporting period began, unemployment, as reported by the U.S. Department of Labor, was 8.7%. Unemployment then generally declined over the next five months and was 8.1% in April 2012, the lowest rate since January 2009. However, the unemployment rate then moved up to 8.2% in May 2012. The housing market showed some positive signs, although it still appears to be searching for a bottom. According to the National Association of Realtors (NAR), existing-home sales fluctuated throughout the period. Existing-home sales fell 1.5% on a seasonally adjusted basis in May 2012 versus the previous month. However, the NAR reported that the median existing-home price for all housing types was \$182,600 in May 2012, up 7.9% from May 2011. In addition, the inventory of unsold homes fell 0.4% in May versus the previous month.

The manufacturing sector overcame a soft patch in the summer of 2011 and continued to expand during the reporting period. Based on the Institute for Supply Management's PMI (PMI)ⁱⁱ, in August 2011, it had a reading of 50.6, its lowest reading in two years (a reading below 50 indicates a contraction, whereas a reading above 50 indicates an expansion). The manufacturing sector gathered momentum and ended January 2012 at 54.1, its highest reading since June 2011. After falling to 52.4 in February, the PMI rose to 53.4 in March and 54.8 in April. The PMI then dipped to 53.5 in May 2012.

IV ClearBridge Energy MLP Fund Inc.

Investment commentary (continued)

Market review

Q. How did the Federal Reserve Board (Fed)iii respond to the economic environment?

A. The Fed took a number of actions as it sought to meet its dual mandate of fostering maximum employment and price stability. As has been the case since December 2008, the Fed kept the federal funds rateiv at a historically low range between zero and 0.25%. In August 2011, the Fed declared its intention to keep the federal funds rate steady until mid-2013. Then, in September 2011, the Fed announced its intention to purchase \$400 billion of longer-term Treasury securities and to sell an equal amount of shorter-term Treasury securities by June 2012 (often referred to as Operation Twist). In January 2012, the Fed extended the period it expects to keep rates on hold, saying economic conditions including low rates of resource utilization and a subdued outlook for inflation over the medium run are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014. In June, after the reporting period ended, the Fed announced that it would extend Operation Twist until the end of 2012 and that it was prepared to take further action as appropriate to promote a stronger economic recovery and sustained improvement in labor market conditions in a context of price stability.

Q. What factors impacted the U.S. stock market during the reporting period?

A. After a strong start, the U.S. stock market gave back a portion of its gains late in the reporting period. Investor risk appetite was generally robust over the first four months of the period due to some better-than-expected economic data and signs of progress in Europe. However, fears related to the European sovereign debt crisis caused the market to modestly weaken in April. The sell-off escalated in May, given renewed fears of contagion from Europe and some disappointing economic data in the U.S. All told, for the six months ended May 31, 2012, the S&P 500 Indexv returned 6.23%.

Looking at the energy master limited partnership (MLP) market, fundamentals remained robust over the past six months. Continued U.S. production growth for crude oil, natural gas and natural gas liquids spurred a large scale energy infrastructure build out. In general, energy MLP cash flows remain strong and company balance sheets continue to be well positioned to finance anticipated growth projects. For energy MLP securities, this has resulted in continued and accelerating distribution growth. In terms of performance, the Alerian MLP Indexvi returned 2.01% over the reporting period.

Performance review

For the six months ended May 31, 2012, ClearBridge Energy MLP Fund Inc. returned 2.89% based on its net asset value (NAV)vii and 0.99% based on its New York Stock Exchange (NYSE) market price per share. The Lipper Sector Equity Closed-End Funds Category

Edgar Filing: ClearBridge Energy MLP Fund Inc. - Form N-CSRS

Average^{viii} returned -0.31% over the same time frame. Please note that Lipper performance returns are based on each fund's NAV.

During this six-month period, the Fund made distributions to shareholders totaling \$0.73 per share, which may have included a return of capital. The performance table shows the Fund's six-month total return based on its NAV and market price as of May 31, 2012. **Past performance is no guarantee of future results.**

Performance Snapshot as of May 31, 2012 (unaudited)

	6-Month
Price Per Share	Total Return*
\$20.86 (NAV)	2.89%
\$21.37 (Market Price)	0.99%

All figures represent past performance and are not a guarantee of future results. Performance figures for periods shorter than one year represent cumulative figures and are not annualized.

* Total returns are based on changes in NAV or market price, respectively.

Total return assumes the reinvestment of all distributions, including returns of capital, if any, at NAV. Prior to January 1, 2012, total return assumed the reinvestment of all distributions in additional shares in accordance with the Fund's Dividend Reinvestment Plan.

Total return assumes the reinvestment of all distributions, including returns of capital, if any, in additional shares in accordance with the Fund's Dividend Reinvestment Plan.

Looking for additional information?

The Fund is traded under the symbol **CEM** and its closing market price is available in most newspapers under the NYSE listings. The daily NAV is available on-line under the symbol **XCEMX** on most financial websites. *Barron's* and the *Wall Street Journal's* Monday edition both carry closed-end fund tables that provide additional information. In addition, the Fund issues a quarterly press release that can be found on most major financial websites as well as www.lmcef.com.

In a continuing effort to provide information concerning the Fund, shareholders may call 1-888-777-0102 (toll free), Monday through Friday from 8:00 a.m. to 5:30 p.m. Eastern Time, for the Fund's current NAV, market price and other information.

As always, thank you for your confidence in our stewardship of your assets.

Sincerely,

R. Jay Gerken, CFA

Chairman, President and
Chief Executive Officer

June 29, 2012

RISKS: *The Fund's concentration of investments in energy-related MLPs subjects it to the risks of investing in MLPs and the energy sector, including the risks of declines in energy and commodity prices, decreases in energy demand, adverse weather conditions, natural or other disasters, changes in government regulation, and changes in tax laws. Leverage may result in greater volatility of NAV and the market price of common shares and increases a shareholder's risk of loss. The Fund may make significant investments in derivative instruments. Derivative instruments can be illiquid, may disproportionately increase losses and have a potentially large impact on Fund performance.*

All investments are subject to risk including the possible loss of principal. Past performance is no guarantee of future results. All index performance reflects no deduction for fees, expenses or taxes. Please note that an investor cannot invest directly in an index.

The information provided is not intended to be a forecast of future events, a guarantee of future results or investment advice. Views expressed may differ from those of the firm as a whole.

VI ClearBridge Energy MLP Fund Inc.

Investment commentary (cont d)

- i Gross domestic product (GDP) is the market value of all final goods and services produced within a country in a given period of time.
- ii The Institute for Supply Management 's PMI is based on a survey of purchasing executives who buy the raw materials for manufacturing at more than 350 companies. It offers an early reading on the health of the manufacturing sector.
- iii The Federal Reserve Board (Fed) is responsible for the formulation of policies designed to promote economic growth, full employment, stable prices and a sustainable pattern of international trade and payments.
- iv The federal funds rate is the rate charged by one depository institution on an overnight sale of immediately available funds (balances at the Federal Reserve) to another depository institution; the rate may vary from depository institution to depository institution and from day to day.
- v The S&P 500 Index is an unmanaged index of 500 stocks and is generally representative of the performance of larger companies in the U.S.
- vi The Alerian MLP Index is a composite of the fifty most prominent energy master limited partnerships (MLPs) and is calculated using a float-adjusted, capitalization-weighted methodology.
- vii Net asset value (NAV) is calculated by subtracting total liabilities and outstanding preferred stock (if any) from the closing value of all securities held by the Fund (plus all other assets) and dividing the result (total net assets) by the total number of the common shares outstanding. The NAV fluctuates with changes in the market prices of securities in which the Fund has invested. However, the price at which an investor may buy or sell shares of the Fund is the Fund 's market price as determined by supply of and demand for the Fund 's shares.
- viii Lipper, Inc., a wholly-owned subsidiary of Reuters, provides independent insight on global collective investments. Returns are based on the six-month period ended May 31, 2012, including the reinvestment of all distributions, including returns of capital, if any, calculated among the 41 funds in the Fund 's Lipper category.

Fund at a glance (unaudited)

Investment breakdown (%) as a percent of total investments

The bar graph above represents the composition of the Fund's investments as of May 31, 2012 and November 30, 2011. The Fund is actively managed. As a result, the composition of the Fund's investments is subject to change at any time.

2 ClearBridge Energy MLP Fund Inc. 2012 Semi-Annual Report

Schedule of investments (unaudited)

May 31, 2012

ClearBridge Energy MLP Fund Inc.

	Shares/ Units	Value
Security		
Master Limited Partnerships 146.3%		
Diversified Energy Infrastructure 42.8%		
Energy Transfer Equity LP	3,150,000	\$114,439,500(a)
Energy Transfer Partners LP	820,000	35,579,800(a)
Enterprise Products Partners LP	4,075,000	198,697,000(a)
Genesis Energy LP	369,000	10,616,130(a)
Kinder Morgan Management LLC	619,663	44,014,663*(a)
ONEOK Partners LP	1,300,000	70,980,000(a)
Regency Energy Partners LP	1,424,999	30,665,978(a)
Williams Partners LP	1,575,483	83,343,051(a)
Total Diversified Energy Infrastructure		588,336,122
Exploration & Production 10.8%		
Linn Energy LLC	4,165,001	147,982,485(a)
Gathering/Processing 29.4%		
Chesapeake Midstream Partners LP	3,365,000	84,225,950(a)
Copano Energy LLC	1,875,001	50,250,027(a)
Crestwood Midstream Partners LP	1,089,997	27,533,324(a)
DCP Midstream Partners LP	365,003	14,355,568(a)
Exterran Partners LP	352,000	6,944,960(a)
MarkWest Energy Partners LP	1,851,000	88,736,940(a)
Penn Virginia Resource Private Partners LP	1,081,081	23,837,836(b)
Targa Resources Partners LP	1,200,000	47,064,000(a)
Western Gas Partners LP	1,394,000	61,461,460(a)
Total Gathering/Processing		404,410,065
Global Infrastructure 6.0%		
Brookfield Infrastructure Partners LP	2,613,940	81,816,322(a)
Liquids Transportation & Storage 40.2%		
Buckeye Partners LP	1,000,000	47,520,000(a)
Enbridge Energy Partners LP	2,141,100	62,605,764(a)
Holly Energy Partners LP	445,000	25,173,650(a)
Magellan Midstream Partners LP	1,655,004	113,880,825(a)
NuStar Energy LP	736,359	38,445,304(a)
NuStar GP Holdings LLC	1,583,500	50,497,815(a)
Plains All American Pipeline LP	1,794,240	140,901,667(a)
Sunoco Logistics Partners LP	1,720,882	57,959,306(a)
Tesoro Logistics LP	500,000	15,765,000
Total Liquids Transportation & Storage		552,749,331

See Notes to Financial Statements.

ClearBridge Energy MLP Fund Inc.

		Shares/ Units	Value
Security			
Natural Gas Transportation & Storage 9.9%			
Boardwalk Pipeline Partners LP		394,502	\$ 10,237,327(a)
El Paso Pipeline Partners LP		2,500,000	82,025,000(a)
PAA Natural Gas Storage LP		1,318,241	23,662,426(a)
TC Pipelines LP		478,000	19,598,000(a)
Total Natural Gas Transportation & Storage			135,522,753
Propane 1.1%			
Inergy LP		840,118	14,391,221(a)
Shipping 6.1%			
Golar LNG Partners LP		375,000	11,921,250
Teekay LNG Partners LP		1,397,685	52,147,627(a)
Teekay Offshore Partners LP		732,218	20,282,439
Total Shipping			84,351,316
Total Investments before Short-Term Investments (Cost	\$1,548,394,127)		2,009,559,615
	Rate	Maturity Date	Face Amount
Short-Term Investments 0.2%			
Repurchase Agreements 0.2%			
State Street Bank & Trust Co. repurchase agreement dated 5/31/12; Proceeds at maturity \$2,935,001; (Fully collateralized by U.S. Treasury Notes, 2.625% due 8/15/20; Market value \$2,993,854) (Cost \$2,935,000)	0.010%	6/1/12	\$2,935,000
Total Investments 146.5% (Cost			2,935,000
\$1,551,329,127#)			2,012,494,615
Liabilities in Excess of Other Assets (46.5)%			(638,897,155)
Total Net Assets 100.0%			\$1,373,597,460

* Non-income producing security.

(a) All or a portion of this security is pledged as collateral pursuant to the loan agreements (See Note 5).

(b) Security is valued in good faith in accordance with procedures approved by the Board of Directors (See Note 1).

Aggregate cost for federal income tax purposes is \$1,377,006,028.

See Notes to Financial Statements.

4 ClearBridge Energy MLP Fund Inc. 2012 Semi-Annual Report

Statement of assets and liabilities (unaudited)

May 31, 2012

Assets:

Investments, at value (Cost \$1,551,329,127)	\$2,012,494,615
Cash	319
Receivable for securities sold	5,726,056
Income tax receivable	2,565,813
Dividends, distributions and interest receivable	980,228
Receivable for Fund shares sold	237,927
Prepaid expenses	60,306
Total Assets	2,022,065,264

Liabilities:

Loan payable (Note 5)	464,000,000
Net deferred tax liability	176,930,991
Payable for securities purchased	5,499,363
Investment management fee payable	1,594,237
Franchise tax payable	171,717
Interest payable	84,673
Accrued expenses	186,823
Total Liabilities	648,467,804
Total Net Assets	\$1,373,597,460

Net Assets:

Par value (\$0.001 par value; 65,834,163 shares issued and outstanding; 100,000,000 shares authorized)	\$ 65,834
Paid-in capital in excess of par value	1,083,598,272
Accumulated net investment loss, net of income taxes	(32,547,125)
Accumulated net realized gain on investments, net of income taxes	33,860,444
Net unrealized appreciation on investments, net of income taxes	288,620,035
Total Net Assets	\$1,373,597,460

Shares Outstanding	65,834,163
---------------------------	------------

Net Asset Value	\$20.86
------------------------	---------

See Notes to Financial Statements.

Statement of operations (unaudited)

For the Six Months Ended May 31, 2012

Investment Income:

Dividends and distributions	\$ 61,222,862
Return of capital (Note 1(f))	(58,268,663)
Net Dividends and Distributions	2,954,199
Interest	293
Total Investment Income	2,954,492

Expenses:

Investment management fee (Note 2)	9,418,647
Interest expense (Note 5)	1,979,384
Audit and tax	139,235
Franchise taxes	130,618
Directors' fees	126,264
Transfer agent fees	119,278
Legal fees	78,353
Fund accounting fees	58,015
Stock exchange listing fees	35,213
Shareholder reports	24,390
Insurance	14,728
Custody fees	5,039
Miscellaneous expenses	37,846
Total Expenses	12,167,010
Net Investment Loss, before income taxes	(9,212,518)
<i>Deferred tax benefit</i>	<i>3,445,482</i>
Net Investment Loss, net of income taxes	(5,767,036)

Realized and Unrealized Gain (Loss) on Investments (Notes 1, 3 and 7):

Net Realized Gain (Loss) From:	
Investment transactions	8,842,148
Deferred tax expense	(3,306,963)
Net Realized Gain, net of income taxes	5,535,185
Change in Net Unrealized Appreciation (Depreciation) From:	
Investments	66,778,523
Deferred tax expense	(24,975,168)
Change in Net Unrealized Appreciation (Depreciation), net of income taxes	41,803,355
Net Gain on Investments, net of income taxes	47,338,540
Increase in Net Assets From Operations	\$ 41,571,504

See Notes to Financial Statements.

6 ClearBridge Energy MLP Fund Inc. 2012 Semi-Annual Report

Statements of changes in net assets**For the Six Months Ended May 31, 2012 (unaudited)
and the Year Ended November 30, 2011**

	2012	2011
Operations:		
Net investment loss, net of income taxes	\$ (5,767,036)	\$ (19,454,735)
Net realized gain, net of income taxes	5,535,185	18,695,847
Change in net unrealized appreciation (depreciation), net of income taxes	41,803,355	87,702,819
<i>Increase in Net Assets From Operations</i>	<i>41,571,504</i>	<i>86,943,931</i>
Dividends/Distributions to Shareholders From (Note 1):		
Return of capital	(47,701,581)	(91,793,468)
<i>Decrease in Net Assets From Dividends/ Distributions to Shareholders</i>	<i>(47,701,581)</i>	<i>(91,793,468)</i>
Fund Share Transactions:		
Net proceeds from sale of shares (300,326 and 0 shares issued, respectively) (Note 6)	6,843,646	
Reinvestment of distributions (446,073 and 1,069,479 shares reinvested, respectively)	9,562,139	22,125,924
<i>Increase in Net Assets From Fund Share Transactions</i>	<i>16,405,785</i>	<i>22,125,924</i>
<i>Increase in Net Assets</i>	<i>10,275,708</i>	<i>17,276,387</i>
Net Assets:		
Beginning of period	1,363,321,752	1,346,045,365
End of period*	\$1,373,597,460	\$1,363,321,752
* Includes accumulated net investment loss, net of income taxes, of:	\$(32,547,125)	\$(26,780,089)

See Notes to Financial Statements.

Statement of cash flows (unaudited)

For the Six Months Ended May 31, 2012

Increase (Decrease) in Cash:**Cash Provided (used) by Operating Activities:**

Net increase in net assets resulting from operations	\$ 41,571,504
Adjustments to reconcile net increase in net assets resulting from operations to net cash provided (used) by operating activities:	
Purchases of portfolio securities	(108,158,340)
Proceeds from sales of portfolio securities	48,302,770
Net purchases, sales and maturities of short-term investments	(1,468,000)
Return of capital	58,268,663
Increase in dividends, distributions and interest receivable	(65,349)
Increase in receivable for securities sold	(5,726,056)
Increase in prepaid expenses	(12,185)
Increase in payable for securities purchased	5,499,363
Increase in interest payable	16,158
Increase in investment management fee payable	133,656
Decrease in Directors' fees payable	(4,677)
Decrease in Franchise tax payable	(232,910)
Decrease in accrued expenses	(207,058)
Increase in net deferred tax liability	24,836,649
Change in unrealized appreciation of investments	(66,778,523)
Net realized gain on investments	(8,842,148)
Net Cash Used from Operating Activities*	(12,866,483)

Cash Provided (Used) by Financing Activities

Distribution paid on common stock	(38,139,442)
Increase in loan payable	44,400,000
Proceeds from sale of shares	6,605,719
Net Cash Provided from Financing Activities	12,866,277

Net Decrease in Cash

	(206)
Cash Beginning of Period	525
Cash End of Period	\$ 319

* During the period ended, federal and state taxes paid were \$232,910 and interest paid on borrowings was \$1,963,226.

See Notes to Financial Statements.

Financial highlights

For a share of capital stock outstanding throughout each year ended November 30, unless otherwise noted:

	2012 ^{1,2}	2011 ³	2010 ³
Net asset value, beginning of period	\$20.95	\$21.03	\$19.074
Income (loss) from operations:			
Net investment loss	(0.09)	(0.30)	(0.00) ⁵
Net realized and unrealized gain	0.73	1.65	2.66
Total income from operations	0.64	1.35	2.66
Less dividends/distributions from:			
Dividends			(0.11)
Return of capital	(0.73)	(1.43)	(0.59)
Total distributions	(0.73)	(1.43)	(0.70)
Net asset value, end of period	\$20.86	\$20.95	\$21.03
Market price, end of period	\$21.37	\$21.89	\$21.26
Total return, based on NAV^{6,7}	2.89%	6.66%	14.17%
Total return, based on market price⁸	0.99%	10.24%	10.05%
Net assets, end of period (millions)	\$1,374	\$1,363	\$1,346
Ratios to average net assets:			
Management fees	1.30% ⁸	1.30%	1.22% ⁸
Other expenses	0.378	0.41	0.358
Subtotal	1.67	1.71	1.57
Income tax expense	3.428	3.92	18.508
Total expenses⁹	5.098	5.63	20.078 ¹⁰
Net investment loss, net of income taxes	(0.79) ⁸	(1.42)	(0.03) ⁸
Portfolio turnover rate	2%	14%	13%
Supplemental data:			
Loans Outstanding, End of Period (000s)	\$464,000	\$419,600	\$350,000
Asset Coverage for Loan Outstanding	396%	425%	485%
Weighted Average Loan (000s)	\$429,528	\$408,085	\$329,470
Weighted Average Interest Rate on Loans	0.92%	0.92%	0.97%

1 Per share amounts have been calculated using the average shares method.

2 For the six months ended May 31, 2012 (unaudited).

3 For the period June 25, 2010 (commencement of operations) to November 30, 2010.

4 Initial public offering price of \$20.00 per share less offering costs and sales load totaling \$0.93 per share.

5 Amount represents less than \$0.01 per share.

6 Performance figures may reflect compensating balance arrangements, fee waivers and/or expense reimbursements. In the absence of compensating balance arrangements, fee waivers and/or expense reimbursements, the total return would have been lower. Past performance

Edgar Filing: ClearBridge Energy MLP Fund Inc. - Form N-CSRS

is no guarantee of future results. Total returns for periods of less than one year are not annualized.

- 7 The total return calculation assumes that distributions are reinvested at NAV. Prior to January 1, 2012, the total return calculation assumed the reinvestment of all distributions in accordance with the Fund's dividend reinvestment plan. Past performance is no guarantee of future results. Total returns for periods of less than one year are not annualized.
- 8 The total return calculation assumes that distributions are reinvested in accordance with the Fund's dividend reinvestment plan. Past performance is no guarantee of future results. Total returns for periods of less than one year are not annualized.
- 8 Annualized.
- 9 The impact of compensating balance arrangements, if any, was less than 0.01%.
- 10 Excludes the impact of reimbursement for organization fees in the amount of 0.01%. Inclusive of the reimbursement the ratio is 20.06%. The investment manager has agreed to reimburse all organization expenses.

See Notes to Financial Statements.

Notes to financial statements (unaudited)**1. Organization and significant accounting policies**

ClearBridge Energy MLP Fund Inc. (the Fund) was incorporated in Maryland on March 31, 2010 and is registered as a non-diversified, closed-end management investment company under the Investment Company Act of 1940, as amended (the 1940 Act). The Board of Directors authorized 100 million shares of \$0.001 par value common stock. The Fund's investment objective is to provide a high level of total return with an emphasis on cash distributions. The Fund seeks to achieve its objective by investing primarily in master limited partnerships (MLPs) in the energy sector. There can be no assurance that the Fund will achieve its investment objective.

Under normal market conditions, the Fund will invest at least 80% of its managed assets in MLPs in the energy sector (the 80% policy). For purposes of the 80% policy, the Fund considers investments in MLPs to include investments that offer economic exposure to public and private MLPs in the form of equity securities of MLPs, securities of entities holding primarily general partner or managing member interests in MLPs, securities that are derivatives of interests in MLPs, including I-Shares, and debt securities of MLPs. Entities in the energy sector are engaged in the business of exploring, developing, producing, gathering, transporting, processing, storing, refining, distributing, mining or marketing of natural gas, natural gas liquids (including propane), crude oil, refined petroleum products or coal.

The following are significant accounting policies consistently followed by the Fund and are in conformity with U.S. generally accepted accounting principles (GAAP). Estimates and assumptions are required to be made regarding assets, liabilities and changes in net assets resulting from operations when financial statements are prepared. Changes in the economic environment, financial markets and any other parameters used in determining these estimates could cause actual results to differ. Subsequent events have been evaluated through the date the financial statements were issued.

(a) Investment valuation. Equity securities for which market quotations are available are valued at the last reported sales price or official closing price on the primary market or exchange on which they trade. The valuations for fixed income securities (which may include, but are not limited to, corporate, government, municipal, mortgage-backed, collateralized mortgage obligations and asset-backed securities) and certain derivative instruments are typically the prices supplied by independent third party pricing services, which may use market prices or broker/dealer quotations or a variety of valuation techniques and methodologies. The independent third party pricing services' internal models use inputs that are observable such as issuer details, interest rates, yield curves, prepayment speeds, credit risks/spreads, default rates and quoted prices for similar securities. Short-term fixed income securities that will mature in 60 days or less are valued at amortized cost, unless it is determined that using this method would not reflect an investment's fair value. If independent third party pricing services are unable to supply prices

Notes to financial statements (unaudited) (cont d)

for a portfolio investment, or if the prices supplied are deemed by the manager to be unreliable, the market price may be determined by the manager using quotations from one or more broker/dealers or at the transaction price if the security has recently been purchased and no value has yet been obtained from a pricing service or pricing broker. When reliable prices are not readily available, such as when the value of a security has been significantly affected by events after the close of the exchange or market on which the security is principally traded, but before the Fund calculates its net asset value, the Fund values these securities as determined in accordance with procedures approved by the Fund's Board of Directors.

The Board of Directors is responsible for the valuation process and has delegated the supervision of the daily valuation process to the Legg Mason North American Fund Valuation Committee (the Valuation Committee). The Valuation Committee, pursuant to the policies adopted by the Board of Directors, is responsible for making fair value determinations, evaluating the effectiveness of the Fund's pricing policies, and reporting to the Board of Directors. When determining the reliability of third party pricing information for investments owned by the Fund, the Valuation Committee, among other things, conducts due diligence reviews of pricing vendors, monitors the daily change in prices and reviews transactions among market participants.

The Valuation Committee will consider pricing methodologies it deems relevant and appropriate when making fair value determinations. Examples of possible methodologies include, but are not limited to, multiple of earnings; discount from market of a similar freely traded security; discounted cash-flow analysis; book value or a multiple thereof; risk premium/yield analysis; yield to maturity; and/or fundamental investment analysis. The Valuation Committee will also consider factors it deems relevant and appropriate in light of the facts and circumstances. Examples of possible factors include, but are not limited to, the type of security; the issuer's financial statements; the purchase price of the security; the discount from market value of unrestricted securities of the same class at the time of purchase; analysts' research and observations from financial institutions; information regarding any transactions or offers with respect to the security; the existence of merger proposals or tender offers affecting the security; the price and extent of public trading in similar securities of the issuer or comparable companies; and the existence of a shelf registration for restricted securities.

For each portfolio security that has been fair valued pursuant to the policies adopted by the Board of Directors, the fair value price is compared against the last available and next available market quotations. The Valuation Committee reviews the results of such back testing monthly and fair valuation occurrences are reported to the Board of Directors quarterly.

The Fund uses valuation techniques to measure fair value that are consistent with the market approach and/or income approach, depending on the type of security and the particular circumstance. The market approach uses prices

and other relevant information generated by market transactions involving identical or comparable securities. The income approach uses valuation techniques to discount estimated future cash flows to present value.

GAAP establishes a disclosure hierarchy that categorizes the inputs to valuation techniques used to value assets and liabilities at measurement date. These inputs are summarized in the three broad levels listed below:

- Level 1 quoted prices in active markets for identical investments

- Level 2 other significant observable inputs (including quoted prices for similar investments, interest rates, prepayment speeds, credit risk, etc.)

- Level 3 significant unobservable inputs (including the Fund's own assumptions in determining the fair value of investments)

The inputs or methodologies used to value securities are not necessarily an indication of the risk associated with investing in those securities.

The following is a summary of the inputs used in valuing the Fund's assets carried at fair value:

ASSETS

Description	Quoted Prices (Level 1)	Other Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Master limited partnerships	\$1,985,721,779	\$23,837,836		\$2,009,559,615
Short-term investments		2,935,000		2,935,000
Total investments	\$1,985,721,779	\$26,772,836		\$2,012,494,615

See Schedule of Investments for additional detailed categorizations.

(b) Repurchase agreements. The Fund may enter into repurchase agreements with institutions that its investment adviser has determined are creditworthy. Each repurchase agreement is recorded at cost. Under the terms of a typical repurchase agreement, the Fund acquires a debt security subject to an obligation of the seller to repurchase, and of the Fund to resell, the security at an agreed-upon price and time, thereby

Edgar Filing: ClearBridge Energy MLP Fund Inc. - Form N-CSRS

determining the yield during the Fund's holding period. When entering into repurchase agreements, it is the Fund's policy that its custodian or a third party custodian, acting on the Fund's behalf, take possession of the underlying collateral securities, the market value of which, at all times, at least equals the principal amount of the repurchase transaction, including accrued interest. To the extent that any repurchase transaction maturity exceeds one business day, the value of the collateral is marked-to-market and measured against the value of the agreement in an effort to ensure the adequacy of the collateral. If the counterparty defaults, the Fund generally has the right to use the collateral to satisfy the terms of the repurchase transaction. However, if the market value of the collateral declines during the period in which the Fund seeks to assert its rights

Notes to financial statements (unaudited) (cont d)

or if bankruptcy proceedings are commenced with respect to the seller of the security, realization of the collateral by the Fund may be delayed or limited.

(c) Net asset value. The Fund determines the net asset value of its common stock on each day the NYSE is open for business, as of the close of the customary trading session (normally 4:00 p.m. Eastern Time), or any earlier closing time that day. The Fund determines the net asset value per share of common stock by dividing the value of the Fund's securities, cash and other assets (including interest accrued but not collected) less all its liabilities (including accrued expenses, borrowings and interest payables), net of income taxes, by the total number of shares of common stock outstanding.

(d) Master limited partnerships. Entities commonly referred to as MLPs are generally organized under state law as limited partnerships or limited liability companies. The Fund intends to primarily invest in MLPs receiving partnership taxation treatment under the Internal Revenue Code of 1986 (the Code), and whose interests or units are traded on securities exchanges like shares of corporate stock. To be treated as a partnership for U.S. federal income tax purposes, an MLP whose units are traded on a securities exchange must receive at least 90% of its income from qualifying sources such as interest, dividends, real estate rents, gain from the sale or disposition of real property, income and gain from mineral or natural resources activities, income and gain from the transportation or storage of certain fuels, and, in certain circumstances, income and gain from commodities or futures, forwards and options with respect to commodities. Mineral or natural resources activities include exploration, development, production, processing, mining, refining, marketing and transportation (including pipelines), of oil and gas, minerals, geothermal energy, fertilizer, timber or industrial source carbon dioxide. An MLP consists of a general partner and limited partners (or in the case of MLPs organized as limited liability companies, a managing member and members). The general partner or managing member typically controls the operations and management of the MLP and has an ownership stake in the partnership. The limited partners or members, through their ownership of limited partner or member interests, provide capital to the entity, are intended to have no role in the operation and management of the entity and receive cash distributions. The MLPs themselves generally do not pay U.S. federal income taxes. Thus, unlike investors in corporate securities, direct MLP investors are generally not subject to double taxation (i.e., corporate level tax and tax on corporate dividends). Currently, most MLPs operate in the energy and/or natural resources sector.

(e) Concentration risk. Concentration in the energy sector may present more risks than if the Fund were broadly diversified over numerous sectors of the economy. A downturn in the energy sector of the economy could have a larger impact on the Fund than on an investment company that does not concentrate in the sector. At times, the performance of securities of

companies in the sector may lag the performance of other sectors or the broader market as a whole.

(f) Return of capital estimates. Distributions received from the Fund's investments in MLPs generally are comprised of income and return of capital. The Fund records investment income and return of capital based on estimates made at the time such distributions are received. Such estimates are based on historical information available from each MLP and other industry sources. These estimates may subsequently be revised based on information received from MLPs after their tax reporting periods are concluded.

For the six months ended May 31, 2012, the Fund estimated that approximately 99.47% of the MLP distributions received would be treated as a return of capital. The Fund recorded as return of capital the amount of \$60,900,362 of dividends and distributions received from its investments.

Additionally, the Fund recorded revisions to the return of capital estimates from the year ended November 30, 2011 in the amount of a \$2,631,699 increase in dividends and distributions received from investments.

(g) Security transactions and investment income. Security transactions are accounted for on a trade date basis. Interest income, adjusted for amortization of premium and accretion of discount, is recorded on the accrual basis. Dividends and distributions are recorded on the ex-dividend date. The cost of investments sold is determined by use of the specific identification method. To the extent any issuer defaults or a credit event occurs that impacts the issuer, the Fund may halt any additional interest income accruals and consider the realizability of interest accrued up to the date of default or credit event.

(h) Distributions to shareholders. Distributions to common stockholders are declared and paid on a quarterly basis and are recorded on the ex-dividend date. The estimated characterization of the distributions paid to common stockholders will be either a dividend (ordinary income) or distribution (return of capital). This estimate is based on the Fund's operating results during the period. The Fund anticipates that 100% of its distribution will be comprised of return of capital as a result of the tax character of cash distributions made by the MLPs.

(i) Compensating balance arrangements. The Fund has an arrangement with its custodian bank whereby a portion of the custodian's fees is paid indirectly by credits earned on the Fund's cash on deposit with the bank.

(j) Partnership accounting policy. The Fund records its pro rata share of the income (loss) and capital gains (losses), to the extent of distributions it has received, allocated from the underlying partnerships and accordingly adjusts the cost basis of the underlying partnerships for return of capital. These amounts are included in the Fund's Statement of Operations.

Notes to financial statements (unaudited) (cont d)

(k) Federal and other taxes. The Fund, as a corporation, is obligated to pay federal and state income tax on its taxable income. The Fund invests its assets primarily in MLPs, which generally are treated as partnerships for federal income tax purposes. As a limited partner in the MLPs, the Fund includes its allocable share of the MLP's taxable income in computing its own taxable income. Deferred income taxes reflect (i) taxes on unrealized gains (losses), which are attributable to the temporary difference between fair market value and tax basis, (ii) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and (iii) the net tax benefit of accumulated net operating and capital losses. To the extent the Fund has a deferred tax asset, consideration is given as to whether a valuation allowance is required. The need to establish a valuation allowance for deferred tax assets is assessed periodically by the Fund based on the Income Tax Topic of the Financial Accounting Standards Board (FASB) Accounting Standards Codification that it is more likely than not that some portion or all of the deferred tax asset will not be realized. In the assessment for a valuation allowance, consideration is given to all positive and negative evidence related to the realization of the deferred tax asset. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability (which are highly dependent on future cash distributions from the Fund's MLP holdings), the duration of statutory carryforward periods and the associated risk that operating and capital loss carryforwards may expire unused.

For all open tax years and for all major jurisdictions, management of the Fund has concluded that there are no significant uncertain tax positions that would require recognition in the financial statements. Furthermore, management of the Fund is also not aware of any tax positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will significantly change in the next twelve months.

The Fund may rely to some extent on information provided by the MLPs, which may not necessarily be timely, to estimate taxable income allocable to the MLP units held in the portfolio and to estimate the associated deferred tax liability. Such estimates are made in good faith. From time to time, as new information becomes available, the Fund modifies its estimates or assumptions regarding the deferred tax liability.

The Fund's policy is to classify interest and penalties associated with underpayment of federal and state income taxes, if any, as income tax expense on its Statement of Operations. The current tax year remains open and subject to examination by tax jurisdictions.

2. Investment management agreement and other transactions with affiliates

Legg Mason Partners Fund Advisor, LLC (LMPFA) is the Fund's investment manager and ClearBridge Advisors, LLC (ClearBridge) is the Fund's subadviser. LMPFA and ClearBridge are wholly-owned subsidiaries of Legg Mason, Inc. (Legg Mason).

Under the investment management agreement, the Fund pays an annual fee, paid monthly, in an amount equal to 1.00% of the Fund's average daily managed assets.

LMPFA provides administrative and certain oversight services to the Fund. LMPFA delegates to the subadviser the day-to-day portfolio management of the Fund, except for the management of cash and short-term instruments. For its services, LMPFA pays ClearBridge 70% of the net management fee it receives from the Fund.

All officers and one Director of the Fund are employees of Legg Mason or its affiliates and do not receive compensation from the Fund.

3. Investments

During the six months ended May 31, 2012, the aggregate cost of purchases and proceeds from sales of investments (excluding short-term investments) were as follows:

Purchases	\$108,158,340
Sales	48,302,770

4. Derivative instruments and hedging activities

Financial Accounting Standards Board Codification Topic 815 requires enhanced disclosure about an entity's derivative and hedging activities.

During the six months ended May 31, 2012, the Fund did not invest in any derivative instruments.

5. Loan

The Fund has revolving credit agreements with two financial institutions, which allows the Fund to borrow up to an aggregate amount of \$775,000,000. Unless renewed, one agreement with a maximum commitment of \$375,000,000 to borrow, will terminate on July 12, 2012. The other agreement, with a maximum commitment of \$400,000,000 to borrow, has a six-month term but will renew everyday for a six-month term unless notice to the contrary is given to the Fund. The Fund pays a commitment fee up to an annual rate of 0.50% on the unutilized portion of the loan commitment amount of \$400,000,000. The interest on both loans is calculated at variable rates based on the LIBOR, plus any applicable margin. Interest expense related to the loans for the six months ended May 31, 2012 was \$1,979,384. For

16 ClearBridge Energy MLP Fund Inc. 2012 Semi-Annual Report

Notes to financial statements (unaudited) (cont d)

the six months ended May 31, 2012, the Fund did not incur commitment fees. At May 31, 2012, the Fund had \$464,000,000 of borrowings outstanding per these credit agreements. Securities held by the Fund are subject to a lien, granted to the lenders, to the extent of the borrowing outstanding and any additional expenses. For the six months ended May 31, 2012, based on the number of days during the reporting period that the Fund had a loan balance outstanding, the average daily loan balance was \$429,527,869 and the weighted average interest rate was 0.92%.

Subsequent to the period of this report, these credit agreements were terminated on July 12, 2012. The Fund has entered into a 364-day revolving credit agreement with a financial institution, which allows the Fund to borrow up to an aggregate amount of \$250,000,000. Unless renewed, the agreement will terminate on July 11, 2013. The Fund pays a commitment fee up to an annual rate of 0.15% on the unutilized portion of the loan commitment amount. The interest on the loan is calculated at a variable rate based on the LIBOR, plus any applicable margin. Securities held by the Fund will be subject to a lien, granted to the lenders, to the extent of the borrowing outstanding and any additional expenses.

6. Capital shares

During the six months ended May 31, 2012, the Fund filed a registration statement with the Securities and Exchange Commission authorizing the Fund to issue an additional 5,000,000 shares of common stock through an equity shelf offering. Under the equity shelf program, the Fund, subject to market conditions, may raise additional equity capital from time to time in varying amounts and offering methods at a net price at or above the Fund's then-current net asset value per common share. Costs incurred by the Fund in connection with the shelf offering are recorded as a deferred charge which are amortized over the period such additional common shares are sold, not to exceed one year. For the period from March 28, 2012 through May 31, 2012, the Fund sold 300,326 shares of common stock and the proceeds from such sales were \$6,843,646.

7. Income taxes

The Fund's income tax provision consists of the following:

	Current	Deferred	Total
Federal tax (expense) / benefit		\$(23,242,853)	\$(23,242,853)
State tax (expense) / benefit		(1,593,796)	(1,593,796)
Total tax (expense) / benefit		\$(24,836,649)	\$(24,836,649)

Deferred income taxes reflect (i) taxes on unrealized gains/(losses), which are attributable to the difference between fair market value and tax basis and (ii) the net tax effects of temporary differences between the carrying amounts of assets and liability for financial reporting purposes and the amounts used for income tax purposes and (iii) the net tax benefit of net operating losses.

Components of the Fund's net deferred tax liability as of May 31, 2012 are as follows:

Deferred tax assets:	
Net operating loss carryforwards	\$ 60,741,741
Deferred tax liabilities	
Unrealized gains on investment securities	\$(172,475,893)
Basis reduction resulting from differences in the book vs. taxable income received from MLPs	(65,196,839)
Total net deferred tax liability	\$(176,930,991)

Total income taxes have been computed by applying the federal statutory income tax rate of 35% plus a blended state income tax rate of 2.4%. The Fund applied this effective rate to net investment income, realized and unrealized gains on investments before taxes in computing its total income taxes.

At May 31, 2012, the Fund has Federal and state net operating loss carryforwards of \$162,411,072 (deferred tax asset of \$60,741,741). Realization of the deferred tax asset related to the net operating loss carryforward is dependent, in part, on generating sufficient taxable income prior to expiration of the loss carryforwards.

If not utilized, \$36,738,924 of the Federal net operating loss carryforward will expire in 2031 and \$125,672,148 will expire in 2032, while the state loss carryforwards expire between 2016 and 2032.

Although the Fund currently has a net deferred tax liability, it periodically reviews the recoverability of its deferred tax assets based on the weight of available evidence. When assessing the recoverability of its deferred tax assets, significant weight is given to the effects of potential future realized and unrealized gains on investments and the period over which these deferred tax assets can be realized, as the expiration date for the federal net operating loss carryforward is 20 years. Based on the Fund's assessment, it has been determined that it is more likely than not that its deferred tax asset will be realized through future taxable income of the appropriate character. Accordingly, no valuation allowance has been established for the Fund's deferred tax asset. The Fund will continue to assess the need for a valuation allowance in the future. Significant declines in the fair value of its portfolio of investments may change the Fund's assessment regarding the recoverability of its deferred tax assets and may result in a valuation allowance. If a valuation allowance is required to reduce any deferred tax asset in the future, it could have a material impact on the Fund's net asset value and results of operations in the period it is recorded.

Notes to financial statements (unaudited) (cont d)

At May 31, 2012, the cost basis of investments for Federal income tax purposes was \$1,377,006,028. At May 31, 2012, gross unrealized appreciation and depreciation of investments for Federal income tax purposes were as follows:

Gross unrealized appreciation	\$668,967,423
Gross unrealized depreciation	(33,478,836)
Net unrealized appreciation before tax	\$635,488,587
Net unrealized appreciation after tax	\$397,815,855

8. Recent accounting pronouncement

In May 2011, the Financial Accounting Standards Board issued Accounting Standards Update No. 2011-04, Fair Value Measurement (Topic 820) Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs (ASU No. 2011-04). ASU No. 2011-04 establishes common requirements for measuring fair value and for disclosing information about fair value measurements. ASU No. 2011-04 is effective during interim and annual periods beginning after December 15, 2011. Management has evaluated ASU No. 2011-04 and concluded that it does not materially impact the financial statement amounts; however, as required, additional disclosure has been included about fair value measurement.

9. Subsequent event

On July 12, 2012, the Fund completed a private placement of \$267 million of fixed-rate senior secured notes. As discussed in Note 5, on July 12, 2012, the Fund borrowed \$210 million under a new \$250 million secured revolving credit facility. Net proceeds from the offering and borrowings under the new credit facility were used to repay outstanding borrowings under two revolving credit facilities and will be used to make new portfolio investments, and for general corporate purposes. After the private placement and the borrowings under the new credit facility, the Fund's total leverage is \$477 million or 22%, comprised of 56% in fixed-rate securities and 44% in floating rate financing.

The table below summarizes the key terms of the offering.

Security	Amount	Rate	Maturity
Senior secured notes			
Series A	\$ 25M	2.80%	7/10/15
Series B	\$ 50M	3.53%	7/10/19
Series C	\$102M	4.06%	7/10/22
Series D	\$ 90M	4.21%	7/10/24

Additional shareholder information (unaudited)**Results of annual meeting of shareholders**

The Annual Meeting of Shareholders of ClearBridge Energy MLP Fund Inc. was held on March 30, 2012, for the purpose of considering and voting upon the election of Directors. The following table provides information concerning the matter voted upon at the meeting:

Election of Directors

Nominees	Votes For	Votes Withheld
Leslie H. Gelb	60,590,512	891,803
R. Jay Gerken	60,795,490	686,825
William R. Hutchinson	60,813,157	669,158

At May 31, 2012, in addition to Leslie H. Gelb, R. Jay Gerken and William R. Hutchinson, the other Directors of the Fund were as follows:

Carol L. Colman
 Daniel P. Cronin
 Paolo M. Cucchi
 Riordan Roett
 Jeswald W. Salacuse

20 ClearBridge Energy MLP Fund Inc.

Dividend reinvestment plan (unaudited)

Unless you elect to receive distributions in cash (i.e., opt-out), all dividends, including any capital gain dividends, on your Common Stock will be automatically reinvested by American Stock Transfer & Trust Company LLC, as agent for the stockholders (the Plan Agent), in additional shares of Common Stock under the Fund's Dividend Reinvestment Plan (the Plan). You may elect not to participate in the Plan by contacting the Plan Agent. If you do not participate, you will receive all cash distributions paid by check mailed directly to you by American Stock Transfer & Trust Company LLC, as dividend paying agent.

If you participate in the Plan, the number of shares of Common Stock you will receive will be determined as follows:

(1) If the market price of the Common Stock on the record date (or, if the record date is not a NYSE trading day, the immediately preceding trading day) for determining stockholders eligible to receive the relevant dividend or distribution (the determination date) is equal to or exceeds 98% of the net asset value per share of the Common Stock, the Fund will issue new Common Stock at a price equal to the greater of (a) 98% of the net asset value per share at the close of trading on the NYSE on the determination date or (b) 95% of the market price per share of the Common Stock on the determination date.

(2) If 98% of the net asset value per share of the Common Stock exceeds the market price of the Common Stock on the determination date, the Plan Agent will receive the dividend or distribution in cash and will buy Common Stock in the open market, on the NYSE or elsewhere, for your account as soon as practicable commencing on the trading day following the determination date and terminating no later than the earlier of (a) 30 days after the dividend or distribution payment date, or (b) the record date for the next succeeding dividend or distribution to be made to the stockholders; except when necessary to comply with applicable provisions of the federal securities laws. If during this period: (i) the market price rises so that it equals or exceeds 98% of the net asset value per share of the Common Stock at the close of trading on the NYSE on the determination date before the Plan Agent has completed the open market purchases or (ii) if the Plan Agent is unable to invest the full amount eligible to be reinvested in open market purchases, the Plan Agent will cease purchasing Common Stock in the open market and the Fund shall issue the remaining Common Stock at a price per share equal to the greater of (a) 98% of the net asset value per share at the close of trading on the NYSE on the determination date or (b) 95% of the then current market price per share.

Common Stock in your account will be held by the Plan Agent in non-certificated form. Any proxy you receive will include all shares of Common Stock you have received under the Plan. You may withdraw from the Plan

(i.e., opt-out) by notifying the Plan Agent in writing at P.O. Box 922, Wall Street Station, New York, NY 10269-0560 or by calling the Plan Agent at 1-888-888-0151. Such withdrawal will be effective immediately if notice is received by the Plan Agent not less than ten business days prior to any dividend or distribution record date; otherwise such withdrawal will be effective as soon as practicable after the Plan Agent's investment of the most recently declared dividend or distribution on the Common Stock. The Plan may be terminated, amended or supplemented by the Fund upon notice in writing mailed to stockholders at least 30 days prior to the record date for the payment of any dividend or distribution by the Fund for which the termination or amendment is to be effective.

Upon any termination, you will be sent cash for any fractional share of Common Stock in your account. You may elect to notify the Plan Agent in advance of such termination to have the Plan Agent sell part or all of your Common Stock on your behalf. You will be charged a service charge and the Plan Agent is authorized to deduct brokerage charges actually incurred for this transaction from the proceeds.

There is no service charge for reinvestment of your dividends or distributions in Common Stock. However, all participants will pay a pro rata share of brokerage commissions incurred by the Plan Agent when it makes open market purchases. Because all dividends and distributions will be automatically reinvested in additional shares of Common Stock, this allows you to add to your investment through dollar cost averaging, which may lower the average cost of your Common Stock over time. Dollar cost averaging is a technique for lowering the average cost per share over time if the Fund's net asset value declines. While dollar cost averaging has definite advantages, it cannot assure profit or protect against loss in declining markets.

Automatically reinvesting dividends and distributions does not mean that you do not have to pay income taxes due upon receiving dividends and distributions. Investors will be subject to income tax on amounts reinvested under the Plan. See "Certain United States Federal Income Tax Considerations" in this Prospectus and the SAI.

The Fund reserves the right to amend or terminate the Plan if, in the judgment of the Board of Directors, the change is warranted. There is no direct service charge to participants in the Plan; however, the Fund reserves the right to amend the Plan to include a service charge payable by the participants. Additional information about the Plan and your account may be obtained from the Plan Agent at 6201 15th Avenue, Brooklyn, New York 11219 or by calling the Plan Agent at 1-888-888-0151.

ClearBridge

Energy MLP Fund Inc.

Directors

Carol L. Colman
Daniel P. Cronin
Paolo M. Cucchi
Leslie H. Gelb
R. Jay Gerken
Chairman
William R. Hutchinson
Riordan Roett
Jeswald W. Salacuse

Officers

R. Jay Gerken
*President and
Chief Executive Officer*
Richard F. Sennett
Principal Financial Officer
Ted P. Becker
Chief Compliance Officer
Vanessa A. Williams
Identity Theft Prevention Officer
Robert I. Frenkel
Secretary and Chief Legal Officer
Thomas C. Mandia
Assistant Secretary
Steven Frank
Treasurer
Jeanne M. Kelly
Senior Vice President

ClearBridge Energy MLP Fund Inc.

620 Eighth Avenue
49th Floor
New York, NY 10018

Investment manager

Legg Mason Partners Fund
Advisor, LLC

Subadviser

ClearBridge Advisors, LLC

Custodian

State Street Bank and Trust Company
1 Lincoln Street
Boston, MA 02111

Transfer agent

American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038

Independent registered public accounting firm

KPMG LLP
345 Park Avenue
New York, NY 10154

Legal counsel

Simpson Thacher & Bartlett LLP
425 Lexington Avenue
New York, NY 10017-3909

New York Stock Exchange Symbol

CEM

Legg Mason Funds Privacy and Security Notice

Your Privacy and the Security of Your Personal Information is Very Important to the Legg Mason Funds

This Privacy and Security Notice (the "Privacy Notice") addresses the Legg Mason Funds' privacy and data protection practices with respect to nonpublic personal information the Funds receive. The Legg Mason Funds include any funds sold by the Funds' distributor, Legg Mason Investor Services, LLC, as well as Legg Mason-sponsored closed-end funds and certain other closed-end funds managed or sub-advised by Legg Mason or its affiliates. The provisions of this Privacy Notice apply to your information both while you are a shareholder and after you are no longer invested with the Funds.

The Type of Nonpublic Personal Information the Funds Collect About You

The Funds collect and maintain nonpublic personal information about you in connection with your shareholder account. Such information may include, but is not limited to:

- Personal information included on applications or other forms;
- Account balances, transactions, and mutual fund holdings and positions;
- Online account access user IDs, passwords, security challenge question responses; and
- Information received from consumer reporting agencies regarding credit history and creditworthiness (such as the amount of an individual's total debt, payment history, etc.).

How the Funds Use Nonpublic Personal Information About You

The Funds do not sell or share your nonpublic personal information with third parties or with affiliates for their marketing purposes, or with other financial institutions or affiliates for joint marketing purposes, unless you have authorized the Funds to do so. The Funds do not disclose any nonpublic personal information about you except as may be required to perform transactions or services you have authorized or as permitted or required by law. The Funds may disclose information about you to:

- Employees, agents, and affiliates on a "need to know" basis to enable the Funds to conduct ordinary business or comply with obligations to government regulators;
- Service providers, including the Funds' affiliates, who assist the Funds as part of the ordinary course of business (such as printing, mailing services, or processing or servicing your account with us) or otherwise perform services on the Funds' behalf, including companies that may perform marketing services solely for the Funds;

Edgar Filing: ClearBridge Energy MLP Fund Inc. - Form N-CSRS

- The Funds' representatives such as legal counsel, accountants and auditors; and
- Fiduciaries or representatives acting on your behalf, such as an IRA custodian or trustee of a grantor trust.

NOT PART OF THE SEMI-ANNUAL REPORT

Legg Mason Funds Privacy and Security Notice (cont d)

Except as otherwise permitted by applicable law, companies acting on the Funds' behalf are contractually obligated to keep nonpublic personal information the Funds provide to them confidential and to use the information the Funds share only to provide the services the Funds ask them to perform.

The Funds may disclose nonpublic personal information about you when necessary to enforce their rights or protect against fraud, or as permitted or required by applicable law, such as in connection with a law enforcement or regulatory request, subpoena, or similar legal process. In the event of a corporate action or in the event a Fund service provider changes, the Funds may be required to disclose your nonpublic personal information to third parties. While it is the Funds' practice to obtain protections for disclosed information in these types of transactions, the Funds cannot guarantee their privacy policy will remain unchanged.

Keeping You Informed of the Funds' Privacy and Security Practices

The Funds will notify you annually of their privacy policy as required by federal law. While the Funds reserve the right to modify this policy at any time they will notify you promptly if this privacy policy changes.

The Funds' Security Practices

The Funds maintain appropriate physical, electronic and procedural safeguards designed to guard your nonpublic personal information. The Funds' internal data security policies restrict access to your nonpublic personal information to authorized employees, who may use your nonpublic personal information for Fund business purposes only.

Although the Funds strive to protect your nonpublic personal information, they cannot ensure or warrant the security of any information you provide or transmit to them, and you do so at your own risk. In the event of a breach of the confidentiality or security of your nonpublic personal information, the Funds will attempt to notify you as necessary so you can take appropriate protective steps. If you have consented to the Funds using electronic communications or electronic delivery of statements, they may notify you under such circumstances using the most current email address you have on record with them.

In order for the Funds to provide effective service to you, keeping your account information accurate is very important. If you believe that your account information is incomplete, not accurate or not current, or if you have questions about the Funds' privacy practices, write the Funds using the contact information on your account statements, email the Funds by clicking on the Contact Us section of the Funds' website at www.leggmason.com, or contact the Fund at 1-888-777-0102.

Revised April 2011

NOT PART OF THE SEMI-ANNUAL REPORT

ClearBridge Energy MLP Fund Inc.

ClearBridge Energy MLP Fund Inc.
620 Eighth Avenue
49th Floor
New York, NY 10018

Notice is hereby given in accordance with Section 23(c) of the Investment Company Act of 1940, as amended, that from time to time, the Fund may purchase, at market prices, shares of its common stock in the open market.

The Fund files its complete schedule of portfolio holdings with the Securities and Exchange Commission (SEC) for the first and third quarters of each fiscal year on Form N-Q. The Fund's Forms N-Q are available on the SEC's website at www.sec.gov. The Fund's Forms N-Q may be reviewed and copied at the SEC's Public Reference Room in Washington, D.C., and information on the operation of the Public Reference Room may be obtained by calling 1-800-SEC-0330. To obtain information on Form N-Q from the Fund, shareholders can call 1-888-777-0102.

Information on how the Fund voted proxies relating to portfolio securities during the prior 12-month period ended June 30th of each year and a description of the policies and procedures that the Fund uses to determine how to vote proxies relating to portfolio securities are available (1) without charge, upon request, by calling 1-888-777-0102, (2) on the Fund's website at www.lmcef.com and (3) on the SEC's website at www.sec.gov.

This report is transmitted to the shareholders of the ClearBridge Energy MLP Fund Inc. for their information. This is not a prospectus, circular or representation intended for use in the purchase of shares of the Fund or any securities mentioned in this report.

American Stock
Transfer & Trust Company
59 Maiden Lane
New York, NY 10038

CBAX013771 7/12 SR12-1687

ITEM 2. CODE OF ETHICS.

Not Applicable.

ITEM 3. AUDIT COMMITTEE FINANCIAL EXPERT.

Not Applicable.

ITEM 4. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

Not Applicable.

ITEM 5. AUDIT COMMITTEE OF LISTED REGISTRANTS.

Not Applicable.

ITEM 6. SCHEDULE OF INVESTMENTS.

Included herein under Item 1.

ITEM 7. DISCLOSURE OF PROXY VOTING POLICIES AND PROCEDURES FOR CLOSED-END MANAGEMENT INVESTMENT COMPANIES.

Not Applicable.

ITEM 8. PORTFOLIO MANAGERS OF CLOSED-END MANAGEMENT INVESTMENT COMPANIES.

Not Applicable.

ITEM 9. PURCHASES OF EQUITY SECURITIES BY CLOSED-END MANAGEMENT INVESTMENT COMPANY AND AFFILIATED PURCHASERS.

Not Applicable.

ITEM 10. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

Not Applicable.

ITEM 11. CONTROLS AND PROCEDURES.

(a) The registrant's principal executive officer and principal financial officer have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the "1940 Act")) are effective as of a date within 90 days of the filing date of this report that includes the disclosure required by this paragraph, based on their evaluation of the disclosure controls and procedures required by Rule 30a-3(b) under the 1940 Act and 15d-15(b) under the Securities Exchange Act of 1934.

(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the second fiscal quarter of the period covered by this report that have materially affected, or are likely to materially affect the registrant's internal control over financial reporting.

ITEM 12.

EXHIBITS.

(a) (1) Not Applicable.

Exhibit 99.CODE ETH

(a) (2) Certifications pursuant to section 302 of the Sarbanes-Oxley Act of 2002 attached hereto.

Exhibit 99.CERT

(b) Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 attached hereto.

Exhibit 99.906CERT

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this Report to be signed on its behalf by the undersigned, there unto duly authorized.

ClearBridge Energy MLP Fund Inc.

By: **/s/ R. Jay Gerken**
R. Jay Gerken
Chief Executive Officer of
ClearBridge Energy MLP Fund Inc.

Date: July 25, 2012

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: **/s/ R. Jay Gerken**
R. Jay Gerken
Chief Executive Officer of
ClearBridge Energy MLP Fund Inc.

Date: July 25, 2012

By: **/s/ Richard F. Sennett**
Richard F. Sennett
Principal Financial Officer of
ClearBridge Energy MLP Fund Inc.

Date: July 25, 2012
