

ClearBridge Energy MLP Fund Inc.
Form N-CSRS
July 25, 2013

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, 2013

ITEM 1.

REPORT TO STOCKHOLDERS.

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

Semi-Annual Report May 31, 2013

CLEARBRIDGE ENERGY MLP FUND INC.

(CEM)

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

The Fund's investment objective is to provide a high level of total return with an emphasis on cash distributions.

What's inside

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Letter from the chairman

Dear Shareholder,

We are pleased to provide the semi-annual report of ClearBridge Energy MLP Fund Inc. for the six-month reporting period ended May 31, 2013. Please read on for Fund performance information and a detailed look at prevailing economic and market conditions during the Fund's reporting period.

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I am pleased to introduce myself as the new Chairman, President and Chief Executive Officer of the Fund, succeeding R. Jay Gerken, as he embarks upon his retirement. Jay has most recently served as Chairman, President and Chief Executive Officer of the Fund and other funds in the Legg Mason complex. On behalf of all our shareholders and the Fund's Board of Directors, I would like to thank Jay for his vision and guidance, and wish him all the best.

I am honored to have been appointed to my new role with the Fund. During my 23 year career in the financial industry, I have seen it evolve and expand. Despite these changes, keeping an unwavering focus on our shareholders and their needs remains paramount. This was a consistent focus of Jay's, and I look forward to following his lead in the years to come.

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,

Kenneth D. Fuller

Chairman, President and Chief Executive Officer

June 28, 2013

II ClearBridge Energy MLP Fund Inc.

Investment commentary

Economic review

The U.S. economy continued to grow over the six months ended May 31, 2013 (the reporting period), but the pace was far from robust. Looking back, U.S. gross domestic product (GDP) growth, as reported by the U.S. Department of Commerce, was 1.3% in the second quarter of 2012. Economic growth accelerated to 3.1% in the third quarter, partially due to increased private inventory investment, higher federal government spending and moderating imports. However, economic activity sharply moderated in the fourth quarter, with GDP expanding an anemic 0.4%. This was driven by a reversal of the above factors, as private inventory investment and federal government spending weakened. Economic growth then improved, as the U.S. Department of Commerce's final reading for first quarter 2013 GDP growth, released after the reporting period ended, was 1.8%. Accelerating growth was due, in part, to strengthening consumer spending, which rose 2.6% during the first quarter, versus a 1.8% increase during the previous quarter.

While there was some improvement in the U.S. job market, unemployment remained elevated throughout the reporting period. When the period began, unemployment, as reported by the U.S. Department of Labor, was 7.8%. The unemployment rate fluctuated between 7.8% and 7.9% through January 2013. Unemployment then fell to 7.7% in February, 7.6% in March and 7.5% in April, before edging up to 7.6% in May. In an encouraging sign, the number of longer-term unemployed has declined in recent months. In February 2013, more than 40% of the people without a job had been out of work for more than six months. This fell to 37.3% in May 2013.

Meanwhile, the housing market brightened, as sales generally improved and home prices continued to rebound. According to the National Association of Realtors (NAR), existing-home sales rose 4.2% on a seasonally adjusted basis in May 2013 versus the previous month and were 12.9% higher than in May 2012. In addition, the NAR reported that the median existing-home price for all housing types was \$208,000 in May 2013, up 15.4% from May 2012. This marked the fifteenth consecutive month that home prices rose compared to the same period a year earlier. While the inventory of homes available for sale rose 3.3% in May 2013 to a 5.1 month supply at the current sales pace, it was 10.1% lower than in May 2012.

While manufacturing activity was weak in many international developed countries, it was generally positive in the U.S. Based on the Institute for Supply Management's Purchasing Managers' Index (PMI)ii, the U.S. manufacturing sector expanded during the first five months of the reporting period. However, manufacturing then experienced a setback, falling from 50.7 in April 2013 to 49.0 in May (a reading below 50 indicates a contraction, whereas a reading above 50 indicates an expansion). During May, 10 of the 18 industries within the PMI expanded, versus 14 expanding the prior month.

Investment commentary (cont d)

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%. At its September 2012 meeting, prior to the beginning of the reporting period, the Fed announced a third round of quantitative easing (QE3), which involves purchasing \$40 billion each month of agency mortgage-backed securities (MBS) on an open-end basis. In addition, the Fed further extended the duration that it expects to keep the federal funds rate on hold, until at least mid-2015. At its meeting in December, the Fed announced that it would continue purchasing \$40 billion per month of agency MBS, as well as initially purchasing \$45 billion a month of longer-term Treasuries. The Fed also said that it would keep the federal funds rate on hold ...as long as the unemployment rate remains above 6.5%, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee s 2.0% longer-run goal, and longer-term inflation expectations continue to be well anchored. At its meeting that ended on June 19, 2013, after the reporting period ended, the Fed did not make any material changes to its official policy statement. However, in a press conference following the meeting, Fed Chairman Bernanke said ...the Committee currently anticipates that it would be appropriate to moderate the monthly pace of purchases later this year; and if the subsequent data remain broadly aligned with our current expectations for the economy, we would continue to reduce the pace of purchases in measured steps through the first half of next year, ending purchases around midyear.

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

A. Despite periods of volatility and several flights to quality, the U.S. stock market generated strong results during the reporting period. In October 2012, prior to the beginning of the period, the market experienced a setback given renewed concerns about the economy and the upcoming fiscal cliff. While these and other macro issues, including the European sovereign debt crisis and uncertainties surrounding the impact of sequestration, weighed on investor sentiment at times, the market posted positive results during all six months of the reporting period. For the six months ended May 31, 2013, the S&P 500 Indexv gained 16.43%.

Looking at the U.S. stock market more closely, small-cap stocks generated the best returns during the six months ended May 31, 2013, with the Russell 2000 Indexvi gaining 20.60%. In contrast, large-cap stocks, as measured by the Russell 1000 Indexvii , returned 16.68% and the Russell Midcap Indexviii returned 19.49%. From an investment style perspective, growth and value stocks, as measured by the Russell 3000 Growthix and Russell 3000 Valuex Indices, returned 14.48% and 19.37%, respectively.

Looking at the energy master limited partnership (MLP) market, the sector s strong performance over the past six months was driven by continued investor interest and by valuations that, in our view, have remained attractive relative to other asset classes. The high current distribution yields of many energy MLPs, combined with the secular growth opportunity the sector represents, has increasingly attracted both income and growth investors into the space. Our belief is that we are still in the early stages of the longer-term energy infrastructure build-out that is occurring in the U.S. to support increased drilling activities in many unconventional shale formations and the continued production growth for crude oil, natural gas and natural gas liquids. For energy MLP securities, this has resulted in continued and accelerating distribution growth. In terms of performance, the Alerian MLP Indexxi returned 14.68% over the six-month reporting period.

Performance review

For the six months ended May 31, 2013, ClearBridge Energy MLP Fund Inc. returned 15.20% based on its net asset value (NAV)^{xii} and 18.66%

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based on its New York Stock Exchange (NYSE) market price per share. The Lipper Sector Equity Closed-End Funds Category Averagexiii returned 9.87% 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 \$0.77 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, 2013. **Past performance is no guarantee of future results.**

Performance Snapshot as of May 31, 2013 (unaudited)

Price Per Share	6-Month Total Return*
\$25.63 (NAV)	15.20 %
\$26.73 (Market Price)	18.66 %

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. Returns reflect the deduction of all Fund expenses, including management fees, operating expenses, and other Fund expenses. Returns do not reflect the deduction of brokerage commissions or taxes that investors may pay on distributions or the sale of shares.

Total return assumes the reinvestment of all distributions, including returns of capital, if any, at NAV.

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,

Kenneth D. Fuller

Chairman, President and Chief Executive Officer

June 28, 2013

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.

ClearBridge Energy MLP Fund Inc. V

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 Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 3000 Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the U.S. equity market.
- vii The Russell 1000 Index measures the performance of the large-cap segment of the U.S. equity universe. It is a subset of the Russell 3000 Index and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000 represents approximately 92% of the U.S. market.
- viii The Russell Midcap Index measures the performance of the mid-cap segment of the U.S. equity universe. The Russell Midcap is a subset of the Russell 1000 Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The Russell Midcap represents approximately 31% of the total market capitalization of the Russell 1000 companies.
- ix The Russell 3000 Growth Index measures the performance of the broad growth segment of the U.S. equity universe. It includes those Russell 3000 Index companies with higher price-to-book ratios and higher forecasted growth values. (A price-to-book ratio is the price of a stock compared to the difference between a company 's assets and liabilities.)
- x The Russell 3000 Value Index measures the performance of the broad value segment of the U.S. equity universe. It includes those Russell 3000 Index companies with lower price-to-book ratios and lower forecasted growth values.
- xi 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.
- xii 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.
- xiii 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, 2013, including the reinvestment of all distributions, including returns of capital, if any, calculated among the 51 funds in the Fund 's Lipper category.

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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, 2013 and November 30, 2012. The Fund is actively managed. As a result, the composition of the Fund's investments is subject to change at any time.

Schedule of investments (unaudited)

May 31, 2013

ClearBridge Energy MLP Fund Inc.

	Shares/ Units	Value
Security		
Master Limited Partnerships 150.1%		
Crude/Refined Products Pipelines 4.8%		
Kinder Morgan Energy Partners LP	1,016,361	\$ 84,764,507
Diversified Energy Infrastructure 48.0%		
Energy Transfer Equity LP	2,069,524	118,293,992
Energy Transfer Partners LP	2,118,893	102,999,389
Enterprise Products Partners LP	3,394,099	201,575,540
Genesis Energy LP	687,632	34,484,745
Kinder Morgan Management LLC	2,123,438	172,465,634
ONEOK Partners LP	1,190,531	61,621,884
Regency Energy Partners LP	2,667,633	68,398,110
Williams Partners LP	1,644,222	82,030,236
Total Diversified Energy Infrastructure		841,869,530
Gathering/Processing 33.2%		
Access Midstream Partners LP	2,509,595	107,962,777
Crestwood Midstream Partners LP	1,104,349	27,332,638
DCP Midstream Partners LP	2,074,882	99,179,360
Exterran Partners LP	356,627	9,882,134
MarkWest Energy Partners LP	1,963,368	129,268,149
PVR Partners LP	798,823	20,577,680
Targa Resources Partners LP	2,273,358	105,733,881
Western Gas Partners LP	1,412,356	83,088,903
Total Gathering/Processing		583,025,522
Global Infrastructure 5.5%		
Brookfield Infrastructure Partners LP	2,648,353	96,188,181
Liquids Transportation & Storage 36.5%		
Buckeye Partners LP	852,000	56,351,280
Enbridge Energy Partners LP	2,532,468	74,733,131
Holly Energy Partners LP	897,740	32,282,730
Magellan Midstream Partners LP	2,363,580	122,882,524
NuStar Energy LP	507,290	23,634,641
NuStar GP Holdings LLC	1,260,723	34,695,097
Plains All American Pipeline LP	3,383,965	190,111,154
Sunoco Logistics Partners LP	1,231,890	74,578,621
Tesoro Logistics LP	506,582	31,428,347
Total Liquids Transportation & Storage		640,697,525

See Notes to Financial Statements.

ClearBridge Energy MLP Fund Inc.

	Shares/ Units		Value
Security			
Natural Gas Transportation & Storage 16.5%			
Boardwalk Pipeline Partners LP	2,679,897	\$	79,324,951
El Paso Pipeline Partners LP	2,330,274		95,750,959
PAA Natural Gas Storage LP	1,323,588		26,696,770
Spectra Energy Partners LP	1,373,537		48,911,652
TC Pipelines LP	894,294		38,964,390
Total Natural Gas Transportation & Storage			289,648,722
Shipping 5.6%			
Golar LNG Partners LP	379,929		12,659,234
Teekay LNG Partners LP	1,416,078		60,749,746
Teekay Offshore Partners LP	741,857		24,058,423
Total Shipping			97,467,403
Total Investments before Short-Term Investments (Cost \$1,669,119,669)			2,633,661,390

	Rate	Maturity Date	Face Amount	
Short-Term Investments 2.7%				
Repurchase Agreements 2.7%				
State Street Bank & Trust Co. repurchase agreement dated 5/31/13; Proceeds at maturity \$47,082,039; (Fully collateralized by U.S. Treasury Notes, 0.625% due 5/31/17; Market value \$48,027,440)(Cost \$47,082,000)				
	0.010%	6/3/13	\$47,082,000	47,082,000
Total Investments				2,680,743,390
Liabilities in Excess of Other Assets (52.8)%				(926,145,056)
Total Net Assets 100.0%				\$1,754,598,334

Aggregate cost for federal income tax purposes is \$1,493,881,707.

See Notes to Financial Statements.

Statement of assets and liabilities (unaudited)

May 31, 2013

Assets:

Investments, at value (Cost \$1,716,201,669)	\$	2,680,743,390
Cash		187
Income tax receivables		2,656,793
Prepaid deferred debt issuance and offering costs		2,132,319
Receivable for investments sold		2,078,732
Dividends and distributions receivable		1,138,792
Receivable for Fund shares sold		89,796
Prepaid expenses and other assets		101,748
Total Assets		2,688,941,757

Liabilities:

Net deferred tax liability (Note 9)		425,699,162
Senior secured notes (Note 6)		267,000,000
Loan payable (Notes 5)		198,000,000
Payable for securities purchased		37,289,056
Interest payable		4,121,987
Investment management fee payable		1,937,568
Accrued expenses and other liabilities		295,650
Total Liabilities		934,343,423
Total Net Assets	\$	1,754,598,334

Net Assets:

Par value (\$0.001 par value; 68,463,629 shares issued and outstanding; 100,000,000 shares authorized)	\$	68,464
Paid-in capital in excess of par value		1,046,334,353
Accumulated net investment loss, net of income taxes		(46,825,411)
Accumulated net realized gain on investments, net of income taxes		150,630,953
Net unrealized appreciation on investments, net of income taxes		604,389,975
Total Net Assets	\$	1,754,598,334

Shares Outstanding	68,463,629
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Net Asset Value	\$25.63
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See Notes to Financial Statements.

Statement of operations (unaudited)

For the Six Months Ended May 31, 2013

Investment Income:

Dividends and distributions	\$ 65,092,571
Return of capital (Note 1(f))	(56,826,356)
Net dividends and distributions	8,266,215
Interest	1,260
Total Investment Income	8,267,475

Expenses:

Investment management fee (Note 2)	10,682,179
Interest expense (Notes 5 and 6)	6,189,785
Amortization of debt issuance and offering costs	281,149
Legal fees	252,311
Audit and tax	176,228
Transfer agent fees	125,794
Directors' fees	122,846
Franchise taxes	119,250
Fund accounting fees	64,913
Rating agency fees	47,420
Commitment fees (Note 5)	39,434
Stock exchange listing fees	26,025
Shareholder reports	23,173
Insurance	15,708
Custody fees	5,367
Miscellaneous expenses	24,804
Total Expenses	18,196,386
Net Investment Loss, before income taxes	(9,928,911)
<i>Deferred tax benefit (Note 9)</i>	<i>3,703,484</i>
Net Investment Loss, net of income tax benefit	(6,225,427)

Realized and Unrealized Gain (Loss) on Investments (Notes 1, 3 and 9):

Net Realized Gain (Loss) From:	
Investment transactions	153,657,381
Deferred tax expense (Note 9)	(57,314,203)
Net Realized Gain, net of income taxes	96,343,178
Change in Net Unrealized Appreciation (Depreciation) From:	
Investments	229,994,620
Deferred tax expense (Note 9)	(86,087,993)
Change in Net Unrealized Appreciation (Depreciation), net of income taxes	143,906,627
Net Gain on Investments, net of income taxes	240,249,805
Increase in Net Assets From Operations	\$234,024,378

See Notes to Financial Statements.

Statements of changes in net assets

For the Six Months Ended May 31, 2013 (unaudited)

and the Year Ended November 30, 2012

	2013	2012
Operations:		
Net investment loss, net of income taxes	\$ (6,225,427)	\$ (13,819,895)
Net realized gain, net of income taxes	96,343,178	25,962,516
Change in net unrealized appreciation (depreciation), net of income taxes	143,906,627	213,666,668
<i>Increase in Net Assets From Operations</i>	<i>234,024,378</i>	<i>225,809,289</i>
Dividends/Distributions To Shareholders From (Note 1):		
Return of capital	(51,973,551)	(96,997,461)
<i>Decrease in Net Assets From Dividends/Distributions to Shareholders</i>	<i>(51,973,551)</i>	<i>(96,997,461)</i>
Fund Share Transactions:		
Net proceeds from sale of shares (1,155,594 and 1,138,680 shares issued, respectively) (Note 8)	29,779,651	25,893,984
Reinvestment of distributions (289,086 and 792,505 shares reinvested, respectively)	7,438,180	17,302,112
<i>Increase in Net Assets From Fund Share Transactions</i>	<i>37,217,831</i>	<i>43,196,096</i>
<i>Increase in Net Assets</i>	<i>219,268,658</i>	<i>172,007,924</i>
Net Assets:		
Beginning of period	1,535,329,676	1,363,321,752
End of period*	\$ 1,754,598,334	\$ 1,535,329,676
* Includes accumulated net investment loss, net of income taxes, of:	\$(46,825,411)	\$(40,599,984)

Net of sales charges of \$454,369 and \$394,930, respectively.

See Notes to Financial Statements.

Statement of cash flows (unaudited)

For the Six Months Ended May 31, 2013

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

Net increase in net assets resulting from operations	\$	234,024,378
Adjustments to reconcile net increase in net assets resulting from operations to net cash provided (used) by operating activities:		
Purchases of portfolio securities		(340,829,678)
Proceeds from sales of portfolio securities		318,801,061
Net purchases, sales and maturities of short-term investments		(45,539,000)
Return of capital		56,826,356
Increase in receivable for securities sold		(2,078,732)
Increase in dividends and distributions receivable		(145,660)
Increase in receivable for Fund shares sold		(89,796)
Decrease in prepaid deferred debt issuance and offering costs		251,149
Decrease in prepaid expenses		230,020
Decrease in income tax receivable		3,694
Increase in payable for securities purchased		37,289,056
Increase in investment management fee payable		311,148
Decrease in interest payable		(19,968)
Decrease in accrued expenses		(225,257)
Increase in net deferred tax liability		139,598,613
Net realized gain on investments		(153,657,381)
Change in unrealized appreciation of investments		(229,994,620)
Net Cash Provided by Operating Activities		14,755,383
Cash Flows From Financing Activities:		
Distributions paid on common stock		(44,535,371)
Proceeds from sale of shares		29,779,651
Net Cash Used in Financing Activities		(14,755,720)
Net Decrease in Cash		(337)
Cash at Beginning of Period		524
Cash at End of Period	\$	187
Non-Cash Financing Activities:		
Reinvestment of distributions	\$	7,438,180

* Included in operating expenses is cash of \$6,257,173 and \$41,158 paid for interest and commitment fees on borrowings and taxes net of refunds, if any, respectively.

See Notes to Financial Statements.

Financial highlights

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

	2013 ^{1,2}	2012 ¹	2011 ¹	2010 ^{1,3}
Net asset value, beginning of period	\$22.91	\$20.95	\$21.03	\$19.074
Income (loss) from operations:				
Net investment loss	(0.09)	(0.21)	(0.30)	(0.00) ⁵
Net realized and unrealized gain	3.58	3.64	1.65	2.66
Total income from operations	3.49	3.43	1.35	2.66
Less dividends/distributions from:				
Dividends				(0.11)
Return of capital	(0.77)	(1.47)	(1.43)	(0.59)
Total distributions	(0.77)	(1.47)	(1.43)	(0.70)
Net asset value, end of period	\$25.63	\$22.91	\$20.95	\$21.03
Market price, end of period	\$26.73	\$23.20	\$21.89	\$21.26
Total return, based on NAV^{6,7}	15.20%	16.74%	6.66%	14.17%
Total return, based on market price⁸	18.66%	13.30%	10.24%	10.05%
Net assets, end of period (millions)	\$1,755	\$1,535	\$1,363	\$1,346
Ratios to average net assets:				
Management fees	1.28% ⁹	1.30%	1.30%	1.22% ⁹
Other expenses	0.90 ⁹	0.62	0.41	0.35 ⁹
Subtotal	2.18	1.92	1.71	1.57
Income tax expense	16.70 ⁹	9.06	3.92	18.50 ⁹
Total expenses¹⁰	18.88⁹	10.98	5.63	20.07^{9,11}
Net investment loss, net of income taxes	(0.74) ⁹	(0.94)	(1.42)	(0.03) ⁹
Portfolio turnover rate	13%	10%	14%	13%
Supplemental data:				
Loan and Debt Issuance Outstanding, End of Period (000s)	\$465,000	\$465,000	\$419,600	\$350,000
Asset Coverage for Loan and Debt Issuance Outstanding	477%	430%	425%	485%
Weighted Average Loan and Debt Issuance (000s)	\$465,000	\$445,461	\$408,085	\$329,470
Weighted Average Interest Rate on Loans and Debt Issuance	2.67%	1.64%	0.92%	0.97%

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

2 For the six months ended May 31, 2013 (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 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.

9 Annualized.

10 The impact of compensating balance arrangements, if any, was less than 0.01%.

11 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.

8 ClearBridge Energy MLP Fund Inc. 2013 Semi-Annual Report

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 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 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

Notes to financial statements (unaudited) (cont d)

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.

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

Description	ASSETS			Total
	Quoted Prices (Level 1)	Other Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Master limited partnerships	\$2,633,661,390			\$2,633,661,390
Short-term investments		\$47,082,000		47,082,000
Total investments	\$2,633,661,390	\$47,082,000		\$2,680,743,390

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 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 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

Notes to financial statements (unaudited) (cont d)

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, 2013, the Fund estimated that approximately 93.56% of the MLP distributions received would be treated as a return of capital. The Fund recorded as return of capital the amount of \$60,901,537 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, 2012 in the amount of a \$4,075,181 increase in dividend 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. Dividend 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 current year 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.

(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 or not 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 and prior tax years remain 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 Investments, LLC (formerly 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. For its services, LMPFA pays ClearBridge 70% of the net management fee it receives from the Fund.

Notes to financial statements (unaudited) (cont d)

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, 2013, the aggregate cost of purchases and proceeds from sales of investments (excluding short-term investments) were as follows:

Purchases	\$340,829,678
Sales	318,801,061

4. Derivative instruments and hedging activities

GAAP requires enhanced disclosure about an entity's derivative and hedging activities.

During the six months ended May 31, 2013, the Fund did not invest in any derivative instruments.

5. Loan

During the period, the Fund had a 364-day revolving credit agreement with a financial institution, which allowed the Fund to borrow up to an aggregate amount of \$250,000,000. Effective June 13, 2013 the aggregate amount was reduced to \$200,000,000. Unless renewed, the agreement will terminate on July 10, 2014. 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 variable rates based on the LIBOR, plus any applicable margin. Securities held by the Fund are subject to a lien, granted to the lender, to the extent of the borrowing outstanding and any additional expenses. The lender has equal access to the lien as the senior secured notes holder (See Note 6). At May 31, 2013, the Fund had \$198,000,000 of borrowings outstanding per the current credit agreement.

Interest expense related to the loans for the six months ended May 31, 2013 was \$1,005,078. For the six months ended May 31, 2013, the Fund incurred \$39,434 in commitment fees. For the six months ended May 31, 2013, the average daily loan balance was \$198,000,000 and the weighted average interest rate was 1.02%.

6. Senior secured notes

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On July 12, 2012, the Fund completed a private placement of \$267,000,000 of fixed rate senior secured notes (the Senior Notes) and borrowed \$210,000,000 under the secured revolving credit facility, as discussed in Note 5. Net proceeds from such offering and borrowings under the new credit facility were used to repay outstanding borrowings under two revolving credit facilities and make new portfolio investments, and for general corporate purposes. At May 31, 2013, the Fund had \$267,000,000 aggregate principal amount of Senior Notes outstanding. Interest expense related to the Senior Notes for the six months ended May 31, 2013 was \$5,184,707. Securities held by the Fund are subject to a lien, granted to the Senior Notes holders, to the extent of the borrowings outstanding and any additional expenses. The Senior Notes holders have equal access to the lien as the lender (See Note 5).

The table below summarizes the key terms of the offering.

Security	Amount	Rate	Maturity
Senior secured notes:			
Series A	\$25M	2.80%	7/12/15
Series B	\$50M	3.53%	7/12/19
Series C	\$102M	4.06%	7/12/22
Series D	\$90M	4.21%	7/12/24

7. Distributions subsequent to May 31, 2013

On July 18, 2013, the Fund's Board of Directors declared a quarterly distribution in the amount of \$0.395 per share, payable on August 30, 2013 to shareholders of record on August 23, 2013. The August record distributions was made subsequent to the period end of this report.

8. Capital shares

During the six months ended May 31, 2013, 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 ended May 31, 2013, the Fund sold 1,155,594 shares of common stock and the proceeds from such sales were \$29,779,651, net of sales charges of \$454,369.

9. Income taxes

Deferred income taxes reflect (i) taxes on unrealized gains/(losses), which are attributable to the 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 net operating losses.

Components of the Fund's net deferred tax liability as of May 31, 2013 are as follows:

Deferred Tax Assets:	
Net operating loss carryforwards	\$ 16,858,896
Other credit carryforwards	141,350
Deferred Tax Liabilities	
Unrealized gains on investment securities	\$ (359,774,062)
Basis reduction resulting from differences in the book vs.	
taxable income received from MLPs	(82,925,346)
Total net deferred tax liability	\$ (425,699,162)

Total income taxes have been computed by applying the federal statutory income tax rate of 35% plus a blended state income tax rate of 2.3%. The Fund applied this effective rate to net investment income, realized and unrealized gains on investments before taxes in computing its total income taxes.

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At May 31, 2013, the Fund has Federal and state net operating loss carryforwards of \$45,198,113 (deferred tax asset of \$16,858,896). 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.

During the period ended May 31, 2013, the Fund utilized \$82,945,109 of its net operating loss carryforward available from previous years. If not utilized, all of the Federal net operating loss carryforward will expire in 2032, while the state loss carryforwards expire between 2016 and 2032.

Notes to financial statements (unaudited) (cont d)

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. Based on the Fund's assessment, it has 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.

At May 31, 2013, the cost basis of investments for Federal income tax purposes was \$1,493,881,707. At May 31, 2013, gross unrealized appreciation and depreciation of investments for Federal income tax purposes were as follows: