Nuveen Energy MLP Total Return Fund Form N-Q October 30, 2017

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM N-O

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-22482

Nuveen Energy MLP Total Return Fund

(Exact name of registrant as specified in charter)

333 West Wacker Drive, Chicago, Illinois 60606

(Address of principal executive offices) (Zip code)

Gifford R. Zimmerman Vice President and Secretary

333 West Wacker Drive, Chicago, Illinois 60606

(Name and address of agent for service)

Registrant s telephone number, including area code: 312-917-7700

Date of fiscal year end: November 30

Date of reporting period: August 31, 2017

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (§§ 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b1-5 under the Investment Company Act of 1940 (17 CFR 270.30b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget (OMB) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Schedule of Investments

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Nuveen Energy MLP Total Return Fund Portfolio of Investments

August 31, 2017 (Unaudited)

| Shares/Units | Description (1) | Value | | | | |
|--------------|---|------------------------|--|--|--|--|
| | LONG-TERM INVESTMENTS 145.7% (99.6% of Total Investments) | | | | | |
| | MASTER LIMITED PARTNERSHIPS & MLP AFFILIATES Investments) | 145.7% (99.6% of Total | | | | |
| | Energy Equipment & Services 1.8% (1.3% of Total Investments) | | | | | |
| 640,836 | Archrock Partners LP | \$ 8,779,453 | | | | |
| | Oil, Gas & Consumable Fuels 143.9% (98.3% of Total Investments) | | | | | |
| 151,318 | American Midstream Partners LP | 1,989,832 | | | | |
| 389,077 | Andeavor Logistics LP | 19,356,581 | | | | |
| 639,900 | Buckeye Partners LP | 36,595,881 | | | | |
| 696,344 | Crestwood Equity Partners LP | 17,373,783 | | | | |
| 1,710,889 | DCP Midstream LP | 54,936,646 | | | | |
| 474,653 | Delek Logistics Partners LP 14,880,37 | | | | | |
| 1,791,755 | Enable Midstream Partners LP 26,679,232 | | | | | |
| 654,129 | Enbridge Energy Management LLC, (2) 9,426,005 | | | | | |
| 1,682,825 | Enbridge Energy Partners LP 25,629,425 | | | | | |
| 2,590,311 | Energy Transfer Partners LP 49,241,812 | | | | | |
| 3,576,765 | EnLink Midstream Partners LP 58,050,896 | | | | | |
| 818,834 | Enterprise Products Partners LP, (3) 21,347,00 | | | | | |
| 741,252 | Genesis Energy LP | 19,791,428 | | | | |
| 395,180 | Golar LNG Partners LP, (4) | 8,686,056 | | | | |
| 560,000 | KNOT Offshore Partners LP, (4) 13,188,00 | | | | | |
| 224,025 | Martin Midstream Partners LP 3,842,02 | | | | | |
| 871,780 | MPLX LP 29,919,49 | | | | | |
| 679,895 | Navios Maritime Midstream Partners LP, (4) | 4,942,837 | | | | |
| 808,665 | NGL Energy Partners LP 7,237,55 | | | | | |
| 38,950 | Noble Midstream Partners LP 1,876,22 | | | | | |
| 43,085 | NuStar Energy LP 1,744,512 | | | | | |
| 389,473 | ONEOK Inc. 21,093,858 | | | | | |
| 380,700 | PBF Logistics LP 8,318,295 | | | | | |
| 2,136,008 | Plains All American Pipeline LP 46,265,933 | | | | | |
| · · | Summit Midstream Partners LP | 20,168,468 | | | | |
| | Sunoco LP | 4,159,690 | | | | |
| 162,550 | Tallgrass Energy Partners LP | 7,683,738 | | | | |
| 479,635 | Targa Resources Corp. 21,377,332 | | | | | |
| | TC PipeLines LP 25,575,688 | | | | | |
| 1,180,582 | Teekay Offshore Partners LP 2,727,144 | | | | | |

| 91,535 The Williams Companies Inc., (4) 2,721,336 1,841,520 Williams Partners LP 72,555,888 Total Oil, Gas & Consumable Fuels 670,512,090 | 980,540 | USD Partners LP | 11,129,129 |
|---|-----------|-----------------------------------|-------------|
| | 91,535 | The Williams Companies Inc., (4) | 2,721,336 |
| Total Oil, Gas & Consumable Fuels 670,512,090 | 1,841,520 | Williams Partners LP | 72,555,888 |
| | | Total Oil, Gas & Consumable Fuels | 670,512,090 |
| Total Long-Term Investments (cost 679,291,543 | | Total Long-Term Investments (cost | 679,291,543 |
| \$597,930,331) | | \$597,930,331) | |

| Principal Amount (000) | Description (1) | Coupon | Maturity | Value |
|---------------------------|--|----------------|-------------|---------------|
| | SHORT-TERM INVESTMENTS 0.6% (0.4% of Total Investments) | | | |
| | REPURCHASE AGREEMENTS 0.6% (0.4% of Total Investments) | | | |
| \$ 2,612 | Repurchase Agreement with Fixed Income Clearing Corporation, dated 8/31/17, repurchase price \$2,612,384, collateralized by \$2,210,000 U.S. Treasury Bonds, 3.750%, due 11/15/43, value \$2,669,231 | 0.120% | 9/01/17 | \$ 2,612,375 |
| | Total Short-Term Investments (cost \$2,612,375) | | | 2,612,375 |
| | Total Investments (cost \$600,542,706) 146.3% | | | 681,903,918 |
| | Borrowings (39.1)% (5), (6) | | | (182,000,000) |
| | Deferred Tax Liability, net (6.5)% | | | (30,504,033) |
| | Other Assets Less Liabilities (0.7)% (7) | | (3,438,621) | |
| | Net Assets 100% | \$ 465,961,264 | | |

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JMF Nuveen Energy MLP Total Return Fund Portfolio of Investments (continued)

August 31, 2017 (Unaudited)

Investments in Derivatives as of August 31, 2017

Interest Rate Swaps OTC Uncleared

| Counterparty | NotionPay AmoEhtat | • | Fixed Floating Rate I(Alen us | ed Rate | v | | Optional ermination Date | Matur |
|----------------|-----------------------|---------|--|---------|-----------|----------|--------------------------|--------|
| JPMorgan Chase | خ | | | | | | | |
| Bank, N.A. | \$ 96,375,000 | Receive | 1-Month USD-LIBOR-ICE | 1.7359 | % Monthly | 12/01/17 | 12/01/18 | 12/01. |
| JPMorgan Chase | ٤ | | | | | | | |
| Bank, N.A. | 94,500,000 | Receive | 1-Month USD-LIBOR-ICE | 1.969 | Monthly | 6/01/18 | 7/01/25 | 7/01 |
| | \$ 190,875,000 | | | | | | | |

Total unrealized appreciation on credit default swaps, net

Total unrealized depreciation on credit default swaps, net

Fair Value Measurements

Fair value is defined as the price that would be received upon selling an investment or transferring a liability in an orderly transaction to an independent buyer in the principal or most advantageous market for the investment. A three-tier hierarchy is used to maximize the use of observable market data and minimize the use of unobservable inputs and to establish classification of fair value measurements for disclosure purposes. Observable inputs reflect the assumptions market participants would use in pricing the asset or liability. Observable inputs are based on market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the reporting entity s own assumptions about the assumptions market participants would use in pricing the asset or liability. Unobservable inputs are based on the best information available in the circumstances. The following is a summary of the three-tiered hierarchy of valuation input levels.

- Level 1 Inputs are unadjusted and prices are determined using quoted prices in active markets for identical securities.
- Level 2 Prices are determined using other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).
- Level 3 Prices are determined using significant unobservable inputs (including management s assumptions in determining the fair value of investments).

The inputs or methodologies used for valuing securities are not an indication of the risk associated with investing in those securities. The following is a summary of the Fund s fair value measurements as of the end of the reporting period:

| | Level 1 | Level 2 | Level 3 | Total |
|--|---------------|---------|---------|---------------|
| Long-Term Investments: | | | | |
| Master Limited Partnerships & MLP Affiliates | \$679,291,543 | \$ | \$ | \$679,291,543 |
| Short-Term Investments: | | | | |

| Repurchase Agreements | | 2,612,375 | 2,612,375 |
|-----------------------------|-------------------|----------------|---------------|
| Investments in Derivatives: | | | |
| Interest Rate Swaps* | | (4,125,132) | (4,125,132) |
| Total | \$ 679,291,543 \$ | (1,512,757) \$ | \$677,778,786 |

^{*} Represents net unrealized appreciation (depreciation).

Income Tax Information

The following information is determined in accordance with a federal income tax regulations, which may differ from accounting principles generally accepted in the United States.

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The tables below present the cost and unrealized appreciation (depreciation) of the Fund s investment portfolio, as determined on a federal income tax basis, as of August 31, 2017.

For purposes of this disclosure, derivative tax cost is generally the sum of any upfront fees or premiums exchanged and any amounts unrealized for income statement reporting but realized in income and/or capital gains for tax reporting. If a particular derivative category does not disclose any tax unrealized appreciation or depreciation, the change in value of those derivatives have generally been fully realized for tax purposes.

As of August 31, 2017, the cost of investments was \$612,800,423.

| Gross unrealized: | |
|---|----------------|
| Appreciation | \$ 141,432,951 |
| Depreciation | (72,329,456) |
| Net unrealized appreciation (depreciation) of investments | \$ 69,103,495 |

Tax cost of swap contracts \$ 1,881,112 Net unrealized appreciation (depreciation) on swaps contracts (41,125,132)

For Fund portfolio compliance purposes, the Fund s industry classifications refer to any one or more of the industry sub-classifications used by one or more widely recognized market indexes or ratings group indexes, and/or as defined by Fund management. This definition may not apply for purposes of this report, which may combine industry sub-classifications into sectors for reporting ease.

- (1) All percentages shown in the Portfolio of Investments are based on net assets unless otherwise noted.
- (2) Distributions are paid in-kind.
- (3) Investment, or portion of investment, has been pledged to collateralize the net payment obligations for investments in derivatives.
- (4) Distribution designated as ordinary income which is recognized as Dividend income on the Statement of Operations.
- (5) Borrowings as a percentage of Total Investments is 26.7%.
- (6) The Fund segregates 100% of its eligible investments (excluding any investments separately pledged as collateral for specific investments in derivatives, when applicable) in the Portfolio of Investments as collateral for borrowings. As of the end of the reporting period, investments with a value of \$545,884,248 have been pledged as collateral for borrowings.

- Other assets less liabilities includes the unrealized appreciation (depreciation) of certain over-the-counter (OTC) derivatives as well as the OTC cleared and exchange-traded derivatives, when applicable.
- (8) Effective date represents the date on which both the Fund and counterparty commence interest payment accruals on each contract.

USD-LIBOR-ICE United States Dollar London Inter-Bank Offered Rate Intercontinental Exchange

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Item 2. Controls and Procedures.

- a. The registrant s principal executive and principal financial officers, or persons performing similar functions, 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) (17 CFR 270.30a-3(c))) 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 controls and procedures required by Rule 30a-3(b) under the 1940 Act (17 CFR 270.30a-3(b)) and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934 (17 CFR 240.13a-15(b) or 240.15d-15(b)).
- 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 (17 CFR 270.30a-3(d)) that occurred during the registrant s last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the registrant s internal control over financial reporting.

Item 3. Exhibits.

File as exhibits as part of this Form a separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the 1940 Act (17 CFR 270.30a-2(a)), exactly as set forth below: EX-99 CERT Attached hereto.

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, thereunto duly authorized.

(Registrant) Nuveen Energy MLP Total Return Fund

By (Signature and Title) /s/ Gifford R. Zimmerman

Gifford R. Zimmerman Vice President and Secretary

Date: October 30, 2017

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 (Signature and Title) /s/ Cedric H. Antosiewicz

Cedric H. Antosiewicz

Chief Administrative Officer (principal executive

officer)

Date: October 30, 2017

By (Signature and Title) /s/ Stephen D. Foy

Stephen D. Foy

Vice President and Controller (principal financial

officer)

Date: October 30, 2017