TORTOISE ENERGY INFRASTRUCTURE CORP Form N-Q October 27, 2016

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

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-21462

Tortoise Energy Infrastructure Corporation (Exact name of registrant as specified in charter)

11550 Ash Street, Suite 300, Leawood, KS 66211 (Address of principal executive offices) (Zip code)

Terry Matlack
Diane Bono
11550 Ash Street, Suite 300, Leawood, KS 66211
(Name and address of agent for service)

913-981-1020 Registrant's telephone number, including area code

Date of fiscal year end: November 30

Date of reporting period: August 31, 2016

Item 1. Schedule of Investments.

Tortoise Energy Infrastructure Corporation SCHEDULE OF INVESTMENTS (Unaudited)

| | August 31, 2016 | | |
|---|-----------------|----|---------------|
| | Shares | , | Fair Value |
| Master Limited Partnerships - 177.7%(1) | | | |
| Crude Oil Pipelines - 44.2%(1) | | | |
| United States - 44.2%(1) | | | |
| Enbridge Energy Partners, L.P. | 1,897,232 | \$ | 44,129,616 |
| Genesis Energy L.P. | 2,331,152 | | 83,431,930 |
| Plains All American Pipeline, L.P. | 6,098,420 | | 171,121,665 |
| Shell Midstream Partners, L.P. | 1,597,369 | | 48,671,834 |
| Sunoco Logistics Partners L.P. | 6,412,715 | | 189,816,364 |
| Tesoro Logistics LP | 2,093,642 | | 100,411,070 |
| | | | 637,582,479 |
| Natural Gas/Natural Gas Liquids Pipelines - | | | |
| 66.7%(1) | | | |
| United States - 66.7%(1) | | | |
| Columbia Pipeline Partners LP | 1,110,158 | | 15,064,844 |
| Dominion Midstream Partners, LP | 896,190 | | 22,816,998 |
| Energy Transfer Partners, L.P.(2) | 5,108,669 | | 204,040,240 |
| Enterprise Products Partners L.P. | 6,886,458 | | 181,802,491 |
| EQT Midstream Partners, LP | 1,966,806 | | 154,610,620 |
| ONEOK Partners, L.P. | 4,956,085 | | 192,048,294 |
| Spectra Energy Partners, LP | 2,779,686 | | 126,837,072 |
| Tallgrass Energy Partners, LP | 1,436,628 | | 66,199,818 |
| | | | 963,420,377 |
| Natural Gas Gathering/Processing - 34.8%(1) | | | |
| United States - 34.8%(1) | | | |
| Antero Midstream Partners LP | 2,223,332 | | 61,275,030 |
| DCP Midstream Partners, LP | 1,348,960 | | 44,205,419 |
| EnLink Midstream Partners, LP | 3,510,721 | | 61,964,226 |
| MPLX LP | 2,421,079 | | 80,210,347 |
| Rice Midstream Partners LP | 820,024 | | 18,745,749 |
| Western Gas Partners, LP | 3,190,562 | | 160,549,080 |
| Williams Partners L.P. | 1,960,231 | | 74,684,801 |
| | | | 501,634,652 |
| Refined Product Pipelines - 32.0%(1) | | | |
| United States - 32.0%(1) | | | |
| Buckeye Partners, L.P. | 2,532,174 | | 177,910,545 |
| Magellan Midstream Partners, L.P. | 2,849,822 | | 200,427,981 |
| Phillips 66 Partners LP | 946,859 | | 46,841,115 |
| Valero Energy Partners LP | 888,135 | | 37,203,975 |
| | | | 462,383,616 |
| | | | |
| Total Master Limited Partnerships (Cost | | | |
| \$2,031,304,920) | | | 2,565,021,124 |

| Duefermed Ct. | and 2.00/(1) | | |
|---------------|--|---|------------------------------|
| | ock - 2.8%(1) | | |
| | Gathering/Processing - 1.7%(1) | | |
| United State | · · | 21.750 | 24.251.740 |
| Targa Resou | rces Corp., 9.500%(3) | 21,758 | 24,351,740 |
| 01 10 | D 1 (1 1 1 (1) | | |
| | Production - 1.1%(1) | | |
| United State | . , | | |
| | etroleum Corporation, 7.500%, | | |
| 06/07/2018 | | 392,800 | 15,004,960 |
| | | | |
| Total Prefer | red Stock (Cost \$36,245,641) | | 39,356,700 |
| | | | |
| Warrants - 0 | | | |
| | Gathering/Processing - 0.6%(1) | | |
| United State | | | |
| Targa Resou | rces Corp Series A, \$18.88, | | |
| 03/16/2023(| 3)(4) | 305,483 | 6,975,779 |
| Targa Resou | rces Corp Series B, \$25.11, | | |
| 03/16/2023(| 3)(4) | 147,302 | 2,495,847 |
| | | | |
| Total Warran | nts (Cost \$3,145,348) | | 9,471,626 |
| | | | |
| Short-Term | Investment - 0.0%(1) | | |
| United State | s Investment Company - 0.0%(1) | | |
| | & Agency Portfolio - Institutional Class, | | |
| | ost \$392,746) | 392,746 | 392,746 |
| | | · | · |
| Total Invest | ments - 181.1%(1) (Cost \$2,071,088,655) | | 2,614,242,196 |
| | Swap Contracts - (0.0)%(1) | | , , , |
| | notional - unrealized depreciation | | (692,536) |
| | and Liabilities - 0.3%(1) | | 4,235,385 |
| | x Liability - (31.5)%(1) | | (454,187,784) |
| | ty Borrowings - (7.8)%(1) | | (112,700,000) |
| | s - (30.7)%(1) | | (442,500,000) |
| | Redeemable Preferred Stock at Liquidation Va | lue - (11 4)%(1) | (165,000,000) |
| | ssets Applicable to Common | 1uc - (11.4)/b(1) | (103,000,000) |
| | s - 100.0%(1) | | \$ 1,443,397,261 |
| Stockholder | S - 100.0 //(1) | | Ψ 1, 11 3,371,201 |
| | | | |
| | Calculated as a paraentage of not assets a | nnliaghla ta gamman | |
| (1) | Calculated as a percentage of net assets a stockholders. | pplicable to collinion | |
| (1) | | colleteral for the unrealized depressions | an af intamast mata |
| (2) | A portion of the security is segregated as | conateral for the unrealized depreciation | on of interest rate |
| (2) | swap contracts of \$692,536. | d in accordance with war day | and have the Decorate C |
| (2) | Restricted securities have been fair valued | u in accordance with procedures approv | ed by the Board of |
| (3) | Directors and | 2.20 | |
| (4) | have a total fair value of \$33,823,366, wh | nich represents 2.3% of net assets. | |
| (4) | Non-income producing security. | | |
| (5) | Rate indicated is the current yield as | | |
| (5) | of August 31, 2016. | | |

Various inputs are used in determining the fair value of the Company's investments and financial instruments. 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, market corroborated inputs, etc.)

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

The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities.

The following table provides the fair value measurements of applicable assets and liabilities by level within the fair value hierarchy as of August 31, 2016. These assets and liabilities are measured on a recurring basis.

| Description | Level 1 | Level 2 | Level 3 | Total |
|--------------------------------|-----------------|-----------|--------------|-----------------|
| Assets | | | | |
| Investments: | | | | |
| Master Limited Partnerships(a) | \$2,565,021,124 | \$- | \$- | \$2,565,021,124 |
| Preferred Stock(a) | 15,004,960 | - | 24,351,740 | 39,356,700 |
| Warrants (a) | - | - | 9,471,626 | 9,471,626 |
| Short-Term Investment(b) | 392,746 | - | - | 392,746 |
| Total Assets | \$2,580,418,830 | \$- | \$33,823,366 | \$2,614,242,196 |
| Liabilities | | | | |
| Interest Rate Swap Contracts | \$- | \$692,536 | \$- | \$692,536 |

- (a) All other industry classifications are identified in the Schedule of Investments.
 - (b) Short-term investment is a sweep investment for cash balances.

The Company utilizes the beginning of reporting period method for determining transfers between levels. During the period ended August 31, 2016, Rice Midstream Partners LP common units held by the Company in the amount of \$10,725,914 were transferred from Level 2 to Level 1 when they converted into registered and unrestricted common units of Rice Midstream Partners LP. There were no other transfers between levels for the Company during the period ended August 31, 2016.

Valuation Techniques

In general, and where applicable, the Company uses readily available market quotations based upon the last updated sales price from the principal market to determine fair value. The Company primarily owns securities that are listed on a securities exchange or are traded in the over-the-counter market. The Company values those securities at their last sale price on that exchange or over-the-counter market on the valuation date. If the security is listed on more than one exchange, the Company uses the price from the exchange that it considers to be the principal exchange on which the security is traded. Securities listed on the NASDAQ are valued at the NASDAQ Official Closing Price, which may not necessarily represent the last sale price. If there has been no sale on such exchange or over-the-counter market on such day, the security is valued at the mean between the last bid price and last ask price on such day. These securities are categorized as Level 1 in the fair value hierarchy.

Restricted securities are subject to statutory or contractual restrictions on their public resale, which may make it more difficult to obtain a valuation and may limit the Company's ability to dispose of them. Investments in private placement securities and other securities for which market quotations are not readily available are valued in good faith

by using certain fair value procedures. Such fair value procedures consider factors such as discounts to publicly traded issues, time until conversion date, securities with similar yields, quality, type of issue, coupon, duration and rating. If events occur that affect the value of the Company's portfolio securities before the net asset value has been calculated (a "significant event"), the portfolio securities so affected are generally priced using fair value procedures.

An equity security of a publicly traded company acquired in a private placement transaction without registration under the Securities Act of 1933, as amended (the "1933 Act"), is subject to restrictions on resale that can affect the security's liquidity and fair value. If such a security is convertible into publicly-traded common shares, the security generally will be valued at the common share market price adjusted by a percentage discount due to the restrictions and categorized as Level 2 in the fair value hierarchy. To the extent that such securities are convertible or otherwise become freely tradable within a time frame that may be reasonably determined, an amortization schedule may be used to determine the discount. If the security has characteristics that are dissimilar to the class of security that trades on the open market, the security will generally be valued and categorized as Level 3 in the fair value hierarchy.

Unobservable inputs shall be used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity. Unobservable inputs shall reflect the Company's own beliefs about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). Unobservable inputs shall be developed based on the best information available in the circumstances, which might include the Company's own data. The Company's own data shall be adjusted if information is reasonably available without undue cost and effort that indicates that market participants would use different assumptions.

The Company generally values debt securities at evaluated bid prices obtained from an independent third-party valuation service that utilizes a pricing matrix based upon yield data for securities with similar characteristics, or based on a direct written broker-dealer quotation from a dealer who has made a market in the security. Debt securities with 60 days or less to maturity at time of purchase are valued on the basis of amortized cost, which approximates market value.

Interest rate swap contracts are valued by using industry-accepted models, which discount the estimated future cash flows based on a forward rate curve and the stated terms of the interest rate swap agreement by using interest rates currently available in the market, or based on dealer quotations, if available, and are categorized as Level 2 in the fair value hierarchy.

The following table presents the Company's assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the period ended August 31, 2016.

| | Preferred | |
|-------------------------------|--------------|-------------|
| | Stock | Warrants |
| Balance – beginning of period | \$- | \$- |
| Purchases | 19,265,393 | 3,145,347 |
| Return of capital | (953,121 |) - |
| Sales | - | - |
| Total realized gains | - | - |
| Change in unrealized gains | 6,039,468 | 6,326,279 |
| Balance – end of period | \$24,351,740 | \$9,471,626 |

The \$12,365,747 of unrealized gains relate to investments that are still held at the end of the reporting period.

Certain of the Company's investments are restricted and are valued as determined in accordance with fair value procedures. The following table shows the principal amount or shares, acquisition date(s), acquisition cost, fair value and the percent of net assets which the securities comprise at August 31, 2016.

| | Investment | | Acquisition | Acquisition | | Fair Value as Percent of Net |
|--|--------------------|---------|-------------|---------------|------------------|---------------------------------|
| Investment Security | Type | Shares | Date | Cost | Fair Value | Assets |
| Targa Resources Corp., 9.500% | Preferred Stock | 21,758 | 3/16/16 | \$ 19,265,393 | \$ 24,351,740 | 1.7% |
| Targa Resources Corp., Series A, \$18.88, 03/16/2023 | Warrants | 305,483 | 3/16/16 | 2,320,856 | 6,975,779 | 0.5 |
| Targa Resources Corp., Series B, \$25.11, 03/16/2023 | Warrants | 147,302 | 3/16/16 | 824,491 | 2,495,847 | 0.1 |
| | | | | | \$ | |
| | | | | \$ 22,410,740 | 33,823,366 | 2.3% |

As of August 31, 2016, the aggregate cost of securities for federal income tax purposes was \$1,343,516,379. The aggregate gross unrealized appreciation for all securities in which there was an excess of fair value over tax cost was \$1,286,371,038, the aggregate gross unrealized depreciation for all securities in which there was an excess of tax cost over fair value was \$15,645,221 and the net unrealized appreciation was \$1,270,725,817.

Item 2. Controls and Procedures.

- (a) The registrant's Chief Executive Officer and its 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 (the "1940 Act")) are effective as of a date within 90 days of the filing date of this report, based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934, as amended.
- (b) There was no change in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3. Exhibits.

Separate certifications 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)) are filed herewith.

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.

Tortoise Energy Infrastructure Corporation

Date: October 27, 2016 By: /s/ P. Bradley Adams

P. Bradley Adams Chief Executive Officer

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.

Tortoise Energy Infrastructure Corporation

Date: October 27, 2016 By: /s/ P. Bradley Adams

P. Bradley Adams Chief Executive Officer

Tortoise Energy Infrastructure Corporation

Date: October 27, 2016 By: /s/ Brent Behrens

Brent Behrens

Principal Financial Officer and

Treasurer