

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

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. __)***

REGENCY ENERGY PARTNERS LP

(Name of Issuer)

Common Units

(Title of class of securities)

75885Y 10 7

(CUSIP Number)

**John W. McReynolds
Energy Transfer Equity, L.P.
3738 Oak Lawn Ave.
Dallas, Texas 75219
(214) 981-0700**

(Name, address and telephone number of person authorized to receive notices and communications)

May 26, 2010

(Date of event which requires filing of this statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D and is filing this Schedule because of Rule 13d-1(e), Rule 13d-1(f) or 13d-1(g), check the following box:

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act.

CUSIP NO. 75885Y 10 7

SCHEDULE 13D

1. Name of Reporting Person; S.S. or IRS Identification

Energy Transfer Equity, L.P.
30-0108820

2. Check the Appropriate Box if a Member of a Group

- (a)
- (b)

3. SEC Use Only

4. Source of Funds

OO (See Item 3)

5. Check Box if Disclosure of Legal Proceedings is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of Shares 26,266,791

8. Shared Voting Power

Beneficially Owned by Each

9. Sole Dispositive Power

Reporting Person 26,266,791

10. Shared Dispositive Power

With 0

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

26,266,791

12. Check Box if the Aggregate Amount in Row 11 Excludes Certain Shares

13. Percent of Class Represented by Amount in Row 11

22.0%¹

14. Type of Reporting Person

PN

¹ Based on 119,607,219 Common Units outstanding on May 27, 2010

CUSIP NO. 75885Y 10 7

SCHEDULE 13D

1. Name of Reporting Person; S.S. or IRS Identification

LE GP, LLC
27-0030188

2. Check the Appropriate Box if a Member of a Group

(a) (b)

3. SEC Use Only

4. Source of Funds

OO (See Item 3)

5. Check Box if Disclosure of Legal Proceedings is Required Pursuant to Item 2(d) or 2(e)

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of Shares 26,266,791

8. Shared Voting Power

Beneficially Owned by Each

9. Sole Dispositive Power

Reporting Person 26,266,791

With 10. Shared Dispositive Power

0

11. Aggregate Amount Beneficially Owned by Each Reporting Person

26,266,791

12. Check Box if the Aggregate Amount in Row 11 Excludes Certain Shares

13. Percent of Class Represented by Amount in Row 11

22.0%²

14. Type of Reporting Person

OO (Limited Liability Company)

² Based on 119,607,219 Common Units outstanding on May 27, 2010

Item 1. Security and Issuer.

This statement on Schedule 13D (the "Schedule") is being filed by both Energy Transfer Equity, L.P. ("ETE") and LE GP, LLC ("LE GP," and collectively with ETE, the "Reporting Persons"), under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The class of equity securities to which this statement relates is common units representing limited partner interests (the "Common Units") of Regency Energy Partners LP, a Delaware limited partnership (the "Issuer"). The address of the principal executive offices of the Issuer is 2001 Bryan Street, Suite 3700, Dallas, Texas 75201.

Item 2. Identity and Background.

(a) - (c) ETE is a Delaware limited partnership. The principal business of ETE is to own all of the interests in the general partner of Energy Transfer Partners, L.P. ("ETP") and certain equity securities of ETP, to acquire interests in other publicly traded partnerships, and to pursue certain opportunities to acquire or construct natural gas midstream or transportation assets. The general partner of ETE is LE GP. LE GP is a Delaware limited liability company, and its principal business is serving as the general partner of ETE. The principal offices of ETE and LE GP are located at 3738 Oak Lawn Ave., Dallas, Texas 75219.

The name, business address and present principal occupation or employment of each of the executive officers and directors of LE GP are set forth below:

<u>Name and Business Address</u>	<u>Capacity in Which Serves LE GP</u>	<u>Principal Occupation</u>
John W. McReynolds 3738 Oak Lawn Ave. Dallas, TX 75219	President, Chief Financial Officer and Director	President and Chief Financial Officer of LE GP
Ray C. Davis 3738 Oak Lawn Ave. Dallas, TX 75219	Director	Principal, Avatar Investments
Kelcy L. Warren 3738 Oak Lawn Ave. Dallas, TX 75219	Chairman of the Board	Chief Executive Officer of Energy Transfer Partners, L.L.C.
Bill Byrne 3738 Oak Lawn Ave. Dallas, TX 75219	Director	Principal, Byrne & Associates, LLC
Paul E. Glaske 3738 Oak Lawn Ave. Dallas, TX 75219	Director	Retired Chairman and CEO, Blue Bird Corporation
John D. Harkey, Jr. 3738 Oak Lawn Ave. Dallas, TX 75219	Director	Chairman and CEO, Consolidated Restaurant Companies, Inc.
David R. Albin Suite 205 100 North Guadalupe Santa Fe, New Mexico 87501	Director	Director of NGP Capital Resources Company and a managing partner of Natural Gas Partners private equity funds
K. Rick Turner 1990 Post Oak Blvd. Suite 2450 Houston, TX 77056	Director	Senior Managing Principal, The Stephens Group, LLC
Ralph S. Cunningham 1100 Louisiana St., 18 th Floor Houston, TX 77002	Director	President and Chief Executive Officer of EPE Holdings, LLC
Marshall S. McCrea, III 3738 Oak Lawn Ave. Dallas, TX 75219	Director	President and Chief Operating Officer of Energy Transfer Partners, L.L.C.

(d) During the last five years, none of the parties listed in this Item 2 has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the parties listed in this Item 2 was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting activities subject to, federal or state securities laws or finding any violation of such laws.

(f) All of the individuals listed in this Item 2 are citizens of the United States of America.

Item 3. Source and Amount of Funds or Other Consideration.

On May 26, 2010, ETP completed the transfer of the membership interests (the "Redemption Transaction") in ETC Midcontinent Express Pipeline III, L.L.C. ("ETC III") to ETE pursuant to the Redemption and Exchange Agreement (the "Redemption Agreement") between ETP and ETE, dated as of May 10, 2010. ETC III owns a 49.9% membership interest in Midcontinent Express Pipeline, LLC ("MEP"), ETP's joint venture with Kinder Morgan Energy Partners, L.P. that owns and operates the Midcontinent Express Pipeline. In exchange for the membership interests in ETC III, ETP received from ETE and redeemed 12,273,830 ETP common units valued at approximately \$600 million based on a 10-day volume weighted average closing price of ETP common units as of May 4, 2010. The completion of the Redemption Transaction also provided ETE with an option (the "Option") to acquire the membership interests in ETC Midcontinent Express Pipeline II, L.L.C. ("ETC II"). ETC II owns a 0.1% membership interest in MEP. The Option may not be exercised until May 27, 2011. As part of the same transaction, on May 26, 2010, ETE also completed the contribution of the membership interests in ETC III and the assignment of its rights under the Option to Regency Midcontinent Express LLC, a subsidiary of the Issuer (the "Contribution Transaction"), in exchange for 26,266,791 Common Units pursuant to the Contribution Agreement (the "Contribution Agreement") by and among ETE, the Issuer and Regency Midcontinent Express LLC, dated as of May 10, 2010 (filed as Exhibit A hereto). The Common Units were valued at approximately \$600 million based on a 10-day volume weighted average closing price of Regency Common Units as of May 4, 2010. The consideration payable under the Contribution Transaction is subject to post-closing purchase price adjustments.

Item 4. Purpose of Transaction.

On May 26, 2010, the 26,266,791 Common Units of the Issuer were acquired by ETE as consideration for the contribution by ETE of the membership interests in ETC III and the assignment of ETE's rights under the Option to Regency Midcontinent Express, LLC, a subsidiary of the Issuer (see Item 3 above).

As part of the May 26, 2010 transactions described in Item 3 above, ETE and its wholly owned subsidiary ETE GP Acquirer, L.P. ("ETE Acquirer") completed their acquisition (the "GP Acquisition") of a 100% equity interest in the general partner entities of the Issuer from Regency GP Acquirer, L.P. ("Regency Acquirer"), an affiliate of GE Energy Financial Services, Inc., pursuant to the General Partner Purchase Agreement by and among ETE, ETE Acquirer and Regency Acquirer, dated as of May 10, 2010. In exchange, ETE issued to Regency Acquirer 3,000,000 Series A Convertible Preferred Units.

In connection with the May 26, 2010 transactions, John D. Harkey, Jr. and John W. McReynolds resigned from the Board of Directors of ETP's general partner and both were appointed to the Board of Directors of the Issuer's general partner. Both will continue to serve on the Board of Directors of LE GP.

Item 5. Interest in Securities of the Issuer.

(a) and (b) Approximately 119,607,219 Common Units of the Issuer were outstanding as of May 27, 2010. The Reporting Persons are deemed to be the beneficial owners of 26,266,791 Common Units. The Common Units owned by the Reporting Persons constitute approximately 22.0% of the total issued and outstanding Common Units. The Reporting Persons have the sole power to vote and dispose of such Common Units. To the knowledge of the Reporting Persons, no executive officer or manager of the Reporting Persons or other party listed in Item 2 has sole or shared beneficial ownership of any Common Units beneficially owned by the Reporting Persons, except that Messrs. Davis and Warren, through their ownership interest in LE GP, may be deemed to also beneficially own the Common Units that are beneficially owned by the Reporting Persons to the extent of their respective interests in each of the Reporting Persons.

(c) Except for the acquisition of Common Units described in Item 3 above, to the knowledge of the Reporting Persons, none of the persons named in response to paragraph (a) above has effected any transaction in Common Units during the past 60 days, except for the acquisition of beneficial ownership of units being reported on this Schedule.

(d) Except as otherwise described herein, no other person other than the Reporting Persons is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds of sale of, the Common Units described in this Item 5.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

All of the Common Units of Issuer held by ETE are pledged as collateral under ETE's Second Amended and Restated Credit Agreement (the "Amended Credit Agreement") filed as Exhibit C hereto.

The Amended Credit Agreement contains various representations and warranties, affirmative and negative covenants and events of default. The Amended Credit Agreement restricts ETE's ability and in certain cases the ability of its subsidiaries (excluding the Issuer and its subsidiaries), to, among other things, incur indebtedness, create certain liens, enter into certain change of control transactions, make certain restricted payments, sell certain assets, make certain investments, loans or advances, enter into certain affiliate transactions, enter into sale-leaseback transactions, and enter into certain prohibited agreements. In addition, the Amended Credit Agreement requires that ETE comply with certain financial covenants, including a ratio of consolidated debt-to-consolidated cash flow covenant. The Agreement contains customary and other events of default relating to defaults of ETE and certain of its subsidiaries. An event of default under the Amended Credit Agreement followed by a foreclosure on the pledged Regency Common Units could result in the lenders under the Amended Credit Agreement acquiring voting and dispositive powers over such Common Units.

Item 7. Material to be Filed as Exhibits.

- EXHIBIT A - Contribution Agreement dated May 10, 2010 between the Issuer, ETE and Regency Midcontinent Express LLC (incorporated by reference to Exhibit 2.3 to Form 8-K filed by ETE on May 13, 2010)
- EXHIBIT B - Joint Filing Agreement dated June 3, 2010 between Energy Transfer Equity, L.P. and LE GP, LLC
- EXHIBIT C - Second Amended and Restated Credit Agreement dated as of May 19, 2010, by and among ETE, Wells Fargo, National Association, as Administrative Agent, LC Issuer and Swingline Lender, Bank of America, N.A. and Citicorp North America, Inc., as Co-Syndication Agents, and BNP PARIBAS and The Royal Bank of Scotland plc, as Co-Documentation Agents, and the other lenders party thereto (incorporated by reference to Exhibit 10.1 to Form 8-K filed by ETE on June 2, 2010)

SIGNATURES

After reasonable inquiry and to the best of each of the undersigned's knowledge and belief, each of the undersigned hereby certifies that the information set forth in this statement is true, complete and correct.

Dated: June 4, 2010

ENERGY TRANSFER EQUITY, L.P.

By: LE GP, LLC
Its general partner

By: /s/ John W. McReynolds
John W. McReynolds
President and Chief Financial Officer

Dated: June 4, 2010

LE GP, LLC

By: /s/ John W. McReynolds
John W. McReynolds
President and Chief Financial Officer

JOINT FILING AGREEMENT

The undersigned reporting persons hereby agree that, pursuant to Rule 13d-1(k) of Regulation 13D promulgated by the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934, as amended, the statements filed pursuant to this Schedule 13D, to which this Agreement is filed as an exhibit, are filed on behalf of each of them.

Date: June 3, 2010

ENERGY TRANSFER EQUITY, L.P.

By: LE GP, LLC, its general partner

By: /s/ John W. McReynolds

John W. McReynolds
President and Chief Financial Officer

Date: June 3, 2010

LE GP, LLC

By: /s/ John W. McReynolds

John W. McReynolds
President and Chief Financial Officer