GSE SYSTEMS INC Form SC 13G/A February 13, 2012

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

GSE Systems, Inc.
(Name of Issuer)
Common Stock, \$.01 par value per share
(Title of Class of Securities)
36227K106
(CUSIP Number)
December 31, 2011
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- o Rule 13d-1(b)
- b Rule 13d-1(c)
- o Rule 13d-1(d)

The information required in 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 (however, see the Notes).

^{*} 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 the disclosures provided in a prior cover page.

CUSIP No. 36227K106

1 NAMES OF REPORTING PERSONS NGP Energy Technology Partners II, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

(a) o

(b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

State of Delaware

SOLE VOTING POWER

5

NUMBER OF 1,716,525

SHARES SHARED VOTING POWER

BENEFICIALLY 6

OWNED BY

EACH SOLE DISPOSITIVE POWER

REPORTING 7

PERSON 1,716,525

WITH: SHARED DISPOSITIVE POWER

8

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

9.3%(1)

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

PN

(1) This number represents the percentage obtained by: dividing (a) the total number of shares of the Issuer s common stock being reported in this Statement (1,716,525) by (b) the number of shares of the Issuer s common stock outstanding on November 9, 2011 (18,465,450).

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CUSIP No. 36227K106

1 NAMES OF REPORTING PERSONS NGP ETP II, L.L.C.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

(a) o

(b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

State of Delaware

SOLE VOTING POWER

5

NUMBER OF 1,716,525(1)

SHARES SHARED VOTING POWER

BENEFICIALLY 6
OWNED BY

EACH SOLE DISPOSITIVE POWER

REPORTING 7

PERSON 1,716,525(1)

WITH: SHARED DISPOSITIVE POWER

8

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

9.3%(2)

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

CO

- (1) The reporting person is the general partner of NGP Energy Technology Partners II, L.P., which owns the reported securities. The reporting person disclaims beneficial ownership of the reported securities except to the extent of any pecuniary interest therein.
- (2) This number represents the percentage obtained by: dividing (a) the total number of shares of the Issuer s common stock being reported in this Statement (1,716,525) by (b) the number of shares of the Issuer s common stock outstanding on November 9, 2011 (18,465,450).

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CUSIP No. 36227K106

1 NAMES OF REPORTING PERSONS Energy Technology Partners, L.L.C.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

(a) o

(b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

State of Delaware

SOLE VOTING POWER

5

NUMBER OF 1,716,525(1)

SHARES SHARED VOTING POWER

BENEFICIALLY 6

OWNED BY

EACH SOLE DISPOSITIVE POWER

REPORTING 7

PERSON 1,716,525(1)

WITH: SHARED DISPOSITIVE POWER

8

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

9.3%(2)

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

CO

- (1) The reporting person is the sole manager of NGP ETP II, L.L.C., which is the general partner of NGP Energy Technology Partners II, L.P., which owns the reported securities. The reporting person disclaims beneficial ownership of the reported securities except to the extent of any pecuniary interest therein.
- (2) This number represents the percentage obtained by: dividing (a) the total number of shares of the Issuer s common stock being reported in this Statement (1,716,525) by (b) the number of shares of the Issuer s common stock outstanding on November 9, 2011 (18,465,450).

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CUSIP No. 36227K106

1 NAMES OF REPORTING PERSONS Philip J. Deutch

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

(a) o

(b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

United States of America

SOLE VOTING POWER

5

NUMBER OF 1,716,525(1)

SHARES SHARED VOTING POWER

BENEFICIALLY 6

OWNED BY

EACH SOLE DISPOSITIVE POWER

REPORTING 7

PERSON 1,716,525(1)

WITH: SHARED DISPOSITIVE POWER

8

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

9.3%(2)

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

IN

- (1) The reporting person is the sole member and manager of Energy Technology Partners, L.L.C., the manager of NGP ETP II, L.L.C. NGP ETP II, L.L.C. is the general partner of NGP Energy Technology Partners II, L.P., which owns the reported securities. The reporting person is also a member of the investment committee of NGP ETP II, L.L.C. By virtue of these relationships, the reporting person may be deemed to have the power to vote, or to direct the vote, and dispose of, or direct the disposition of, the reported securities held by NGP Energy Technology Partners II, L.P. The reporting person disclaims beneficial ownership of the reported securities except to the extent of any pecuniary interest therein.
- (2) This number represents the percentage obtained by: dividing (a) the total number of shares of the Issuer s common stock being reported in this Statement (1,716,525) by (b) the number of shares of the Issuer s common stock outstanding on November 9, 2011 (18,465,450).

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Item 1.

- (a) Name of Issuer: GSE Systems, Inc.
- (b) Address of Issuer's Principal Executive Offices: 1332 Londontown Blvd., Suite 200, Sykesville, MD 21784 **Item 2.**
 - (a) Name of Person Filing: NGP Energy Technology Partners II, L.P. (NGP Energy Tech), NGP ETP II, L.L.C. (NGP GP), Energy Technology Partners, L.L.C. (ETP) and Philip J. Deutch (Deutch). NGP GP is the general partner of NGP Energy Tech. ETP is the sole manager of NGP GP and Deutch is the sole member and manager of ETP. Each of NGP Energy Tech, NGP GP, ETP and Deutch may be referred to herein as a Reporting Person
 - (b) Address of Principal Business Office or, if none, Residence: The address and principal business office of each Reporting Person and is 1700 K Street NW, Suite 750, Washington, D.C. 20006.
 - (c) Citizenship:

NGP Energy Tech is a limited partnership organized under the laws of the State of Delaware. NGP GP and ETP are limited liability companies organized under the laws of the state of Delaware. Deutch is a citizen of the United States.

- (d) Title of Class of Securities: Common Stock, \$.01 par value per share
- (e) CUSIP Number: 36227K106

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) o Broker or dealer registered under Section 15 of the Act (15 U.S.C 78c).
- (b) o Bank as defined in Section 3(a) (6) of the Act (15 U.S.C 78c).
- (c) o Insurance Company as defined in Section 3(a) (19) of the Act (15 U.S.C 78c).
- (d) o Investment Company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e) o Investment Adviser in accordance with SS 240. 13d-1(b) (1) (ii) (E);
- (f) o Employee Benefit Plan or Endowment Fund in accordance with SS 240. 13d-1(b) (ii) (F);
- (g) o Parent Holding Company or Control Person in accordance with SS.SS.240. 13d-1(b) (ii) (G);
- (h) o A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) o A church plan that is excluded from the definition of an investment company under Section 3(c) (14) of the Investment Company Act of 1940(15 U.S.C 80a-3);
- (j) o Group, in accordance with SS 240. 13d-1(b) (1) (ii) (J); Not applicable.

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Item 4. Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

Each of the Reporting Persons may be deemed to beneficially own an aggregate of 1,716,525 shares of the Issuer s Common Stock.

(b) Percent of class:

Each of the Reporting Persons may be deemed to beneficially own 9.3 percent of the Issuer s Common Stock. This number represents the percentage obtained by: dividing (a) the total number of shares of the Issuer s common stock being reported in this Statement (1.716.525) by (b) the number of shares of the Issuer s common stock outstanding on November 9, 2011 (18,465,450).

- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote

NGP Energy Tech: 1,716,525 shares

NGP GP: 1,716,525 shares*

ETP: 1,716,525 shares*

Deutch: 1,716,525 shares*

(ii) Shared power to vote or to direct the vote

None.

(iii) Sole power to dispose or to direct the disposition of

NGP Energy Tech: 1,716,525 shares

NGP GP: 1,716,525 shares*

ETP: 1,716,525 shares*

Deutch: 1,716,525 shares*

(iv) Shared power to dispose or to direct the disposition of

None.

* NGP Energy Tech will have sole voting and dispositive power with respect to the shares of Common Stock of the Issuer beneficially owned by NGP Energy Tech. By virtue of the relationships between and among the Reporting Persons described in Item 2 of this Statement, NGP GP, ETP and Deutch may be deemed to have the power to direct the voting and disposition of the shares of Common Stock beneficially owned by NGP Energy Tech. NGP GP, ETP and Deutch disclaim beneficial ownership of the reported securities except to the extent of their

pecuniary interests therein.

Item 5. Ownership of Five Percent or Less of a Class

Not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person

Not applicable.

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Item 8. Identification and Classification of Members of the Group

Not applicable.

Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certifications

By signing below each of the undersigned certifies that, to the best of such undersigned s respective knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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SIGNATURE

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

Date: February 10, 2012

NGP Energy Technology Partners II, L.P.

By: NGP ETP II, L.L.C. Its: General Partner

By: /s/ Philip J. Deutch Name: Philip J. Deutch

Title: Authorized Member

NGP ETP II. L.L.C.

By: /s/ Philip J. Deutch

Name: Philip J. Deutch Title: Authorized Member

Energy Technology Partners L.L.C.

By: /s/ Philip J. Deutch

Name: Philip J. Deutch

Title: Sole Member and Manager

/s/ Philip J. Deutch Philip J. Deutch

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