

ACORN ENERGY, INC.  
Form 8-K  
February 24, 2010

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

FORM 8-K  
CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported) February 24, 2010

ACORN ENERGY, INC.  
(Exact name of Registrant as Specified in its Charter)

Delaware  
(State or Other Jurisdiction  
of Incorporation)

0-19771  
(Commission file Number)

22-2786081  
(IRS Employer  
Identification No.)

4 West Rockland Road, Montchanin, Delaware  
(Address of Principal Executive Offices)

19710  
(Zip Code)

Registrant's telephone number, including area code (302) 656-1707

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-2 under the Exchange Act (17 CFR 240.14a-2)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Section 7 – Regulation FD

Item 7.01 Regulation FD Disclosure.

On February 24, 2010, the Company issued a press release announcing its strategic investment in US Sensor Systems Inc.. The press release is filed as Exhibit 99.1 hereto.

Section 8 – Other Events

Item 8.01 Other Events.

SEC Inquiry Regarding Comverge Share Transactions

The Company and its Chairman and Chief Executive Officer, John A. Moore, have received subpoenas from the staff of the Securities and Exchange Commission (the “SEC”) for information about their transactions in the shares of Comverge, Inc. from January 1, 2008 through October 31, 2008. The SEC staff has advised the Company that issuance of the subpoenas should not be construed as an indication by the SEC staff that any violation of the law has occurred, nor should it be considered a reflection upon any person, entity or security.

The Company believes that all of its and Mr. Moore’s transactions in Comverge shares were made in full compliance with all laws. The Company and Mr. Moore have responded to the SEC staff and are committed to responding fully to any inquiries of the SEC staff. In the course of responding to the SEC staff’s inquiry, the Company’s counsel has not identified any information indicating that the transactions in Comverge stock by the Company or Mr. Moore were in violation of any applicable laws.

Option to Purchase Shares of US Sensor Systems Inc.

On February 23, 2010, the Company entered into an option agreement with US Sensor Systems Inc., or USSI, a company which designs, integrates, manufactures, and sells fiber optic sensing systems and solutions for the energy, defense and security markets, and a related option agreement with certain stockholders of USSI. The Company currently owns 146,386 shares of USSI’s common stock which the Company purchased for \$500,000 and which represents approximately 10.0% of USSI’s fully diluted capitalization.

Under the terms of the option agreement with USSI, the Company has the right to acquire up to an additional 159,115 shares of USSI’s common stock for a purchase price of \$500,000. The Company has the right to acquire 63,646 of these shares under the option in consideration for payment of \$200,000 on or before May 31, 2010. If the Company exercises this installment, it has the right to acquire the remaining 95,469 shares under the option on or before August 27, 2010 in consideration for payment of \$300,000.

Under the Company’s agreement with certain of USSI’s stockholders, the Company has the right to acquire 516,378 shares of USSI common stock held by such stockholders in consideration for payment to them of \$2,111,986 on or before August 27, 2010. The purchase price is payable in the Company’s common stock which shall be priced on the basis of the volume weighted average of the Company’s common stock on the 20 trading days ending on the day that is five days preceding the date that the Company exercises its option to acquire the shares of the USSI stockholders. The shares of the Company’s common stock that are issued to the USSI stockholders in consideration for their shares would be restricted securities under Securities Act of 1933 and would be subject to a lock-up by certificate legend. The shares would be released from the lock-up over a one year period, with 25% being released each three months. If the Company exercises the options described in this and in the preceding paragraph, the Company would own common stock of USSI representing approximately 51% of USSI’s fully diluted capitalization.



Under the agreement with USSI, if the Company exercises the options to acquire USSI's common stock described in the two preceding paragraphs, the Company would have the right to acquire 1,693,391 additional shares of USSI's common stock from USSI on or before November 30, 2010 in consideration for payment of \$1,500,000. If the Company exercises this option, it would have the right to acquire 1,693,391 additional shares of common stock from USSI on or before May 30, 2011 in consideration for payment of \$1,500,000.

If the Company purchases all of the USSI common stock it is entitled to purchase under the agreements, the Company would hold USSI shares representing approximately 84% of USSI's fully diluted capitalization.

#### Proposed Acquisition of GridSense

As previously announced, on November 4, 2009 the Company entered into a binding letter of intent with GridSense Pty Ltd and the principal stockholders of GridSense to acquire all of the outstanding shares of GridSense that the Company does not already own. The Company currently own 15,714,285 shares of GridSense representing 31% of GridSense's outstanding shares. Immediately prior to the completion of the acquisition, the Company intends to convert a Gridsense promissory note in the principal amount of approximately \$730,000 plus accrued interest thereon into approximately 8,861,096 GridSense shares which, after giving effect to other simultaneous issuances of GridSense shares, will result in the Company owning 24,575,381 shares of GridSense representing approximately 40.6% of GridSense's outstanding shares.

Under the terms of the transaction, the Company will acquire the outstanding GridSense shares that are not owned by the Company in consideration for 440,894 shares of the Company's common stock. Under the letter of intent these shares were at the time valued at \$5.91 per share which was the volume weighted average of the Company's common stock for the 20 trading days preceding October 16, 2009. In addition, the Company will acquire \$1,128,339 principal amount of promissory notes of GridSense at a price equal to the principal amount plus accrued interest. Under the letter of intent, 50% of the purchase price of the notes would be paid in cash and 50% would be paid in shares of the Company's common stock, valued at \$5.91 per share, which would result in the issuance of approximately 150,000 shares of the Company's common stock. In addition, the Company agreed to provide to Gridsense at closing with approximately \$600,000 to be used to pay a shareholder loan.

Under the letter of intent, the Company has also agreed to pay an earn-out to the shareholders of GridSense as part of the consideration for their shares. To the extent that GridSense's calendar year 2010 sales exceed \$4,383,720, the Company will pay the GridSense shareholders an amount equal to 50% of that excess, up to \$2,435,400, multiplied by .5954 (representing their ownership interest in GridSense) for a maximum earn-out of \$1,449,799. The Company has the option of paying any earn-out in cash and/or shares of the Company's common stock. If the Company uses shares as all or part of the payment, each share would be valued as the volume weighted average price of the Company's common stock on the 20 trading days preceding the date of the issuance of the auditor's report relating to the Company's 2010 financial statements.

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The Company's shares of common stock which are issued in consideration for acquiring GridSense's shares and debt, including any shares issued in payment of the earn-out, will be subject to an escrow for possible indemnity claims and a lock-up, with 50% of the shares released after six months and the balance one year after issuance.

When the Company signed the letter of intent, the Company loaned GridSense \$550,000 which accrues interest at 8% per annum and is due in October 2011. If the transaction to acquire GridSense does not close or is terminated, the Company may declare the unpaid principal and accrued interest on that note (as well as \$730,000 of principal amount of GridSense notes that the Company holds plus accrued interest) immediately due and payable and the Company has the right to convert such indebtedness into shares of GridSense.

If the GridSense acquisition is completed, the Company has agreed to provide GridSense with up to \$2,000,000 in working capital which may be in the form of debt or equity.

Definitive documentation for the GridSense acquisition is being prepared and the transaction is expected to close by March 12, 2010.

## Section 9 – Financial Statements and Exhibits

### Item 9.01 Financial Statements and Exhibits

#### (d) Exhibits

Exhibit No.	Description
99.1	Press Release dated February 24, 2010

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized on this 24th day of February, 2010.

ACORN ENERGY, INC.

By: /s/ Joe B. Cogdell, Jr.

Name: Joe B. Cogdell, Jr.

Title: Vice President, Secretary and General Counsel

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