

ACORN ENERGY, INC.  
Form 8-K  
September 20, 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) September 16, 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 September 20, 2010, the Company issued a press release announcing its acquisition of additional shares of common stock in US Sensor Systems Inc. The press release is filed as Exhibit 99.1 hereto.

Section 8 – Other Events

Item 8.01 Other Events.

Option to Purchase Shares of US Sensor Systems Inc.

On February 23, 2010, the Company entered into option agreements with US Sensor Systems Inc., or USSI, and certain of its stockholders. On September 16, 2010, the Company closed on its exercise of its option to purchase 560,858 shares of common stock of USSI from certain of USSI's stockholders in consideration of the issuance of 473,161 shares of common stock of the Company. Subsequent to such closing, the Company owns 50.5% of the issued and outstanding shares of common stock of USSI. Under the option agreements, the Company has 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.

Section 9 – Financial Statements and Exhibits

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Press Release dated September 20, 2010

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 20th day of September, 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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