ACORN ENERGY, INC. Form S-3 September 16, 2010

As filed with the Securities and Exchange Commission on September 16, 2010 Registration No. 333-

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

FORM S-3 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ACORN ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

22-2786081

(I.R.S. Employer Identification No.)

John A. Moore

4 West Rockland Road Montchanin, Delaware 19710 (302) 656-1707

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices) President and Chief Executive Officer
Acorn Energy, Inc.
4 West Rockland Road
Montchanin, Delaware 19710
(302) 656-1707

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copies to:

Joe B. Cogdell, Jr., Esq.
Vice President, General Counsel and Secretary
Acorn Energy, Inc.
4 West Rockland Road
Montchanin, Delaware 19710
(302) 656-1707

Sheldon Krause, Esq. Eilenberg & Krause LLP 11 East 44th Street, 19th Floor New York, New York 10017 (212) 986-9700

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. R

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. "

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer " Accelerated filer " Non-accelerated filer " Smaller Reporting Company R (Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

	Proposed Maximum Amount of			
Title of Each Class of	Agg	regate offering	Reg	gistration
Securities to be Registered (1)	Price	e	Fee	(2)
Common Stock (\$.01 par value)				
Debt Securities				
Warrants				
Rights to Purchase Common Stock				
Units				
Total	\$	20,000,000	\$	1,426

- (1) There are being registered hereunder an indeterminate number of shares of common stock, warrants to purchase common stock or debt securities, rights to purchase common stock and units and an indeterminate principal amount of debt securities as shall have an aggregate initial offering price not to exceed \$20,000,000. If any debt securities are issued at an original issued discount, then the offering price of such debt securities shall be in such greater principal amount as shall result in an aggregate offering price not to exceed \$20,000,000, less the aggregate dollar amount of all securities previously issued hereunder. Any securities registered hereunder may be sold separately or as units with the other securities registered hereunder. The securities registered hereunder are to be issued from time to time at prices to be determined The securities registered hereunder also include such indeterminate number of shares of common stock and amount of debt securities as may be issued upon conversion of debt securities that provide for conversion or upon exercise of warrants. In addition, pursuant to Rule 416 under the Securities Act, the shares being registered hereunder include such indeterminate number of shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (2) The registration fee has been calculated, pursuant to Rule 457(o) under the Securities Act on the basis of the maximum aggregate offering price of the securities listed.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the SEC acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted until the registration statement is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 16, 2010

PROSPECTUS

\$20,000,000

Common Stock Debt Securities Warrants Rights Units

The securities covered by this prospectus may be offered and sold by us from time to time. When we offer securities, we will provide you with a prospectus supplement describing the specific terms of the specific issue of securities, including the offering price of the securities. You should carefully read this prospectus and the prospectus supplement relating to the specific issue of securities, together with the documents incorporated by reference into this prospectus and any prospectus supplement, before you decide to purchase any of these securities.

THIS PROSPECTUS MAY NOT BE USED TO OFFER OR SELL ANY SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may offer the securities from time to time in amounts and on terms as we may determine through public or private transactions or through other means described in the section entitled "Plan of Distribution" beginning on page 13 of this prospectus. We may offer and sell these securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis. The applicable prospectus supplement will provide the specific terms of the plan of distribution for the securities covered by such prospectus supplement.

Our common stock is listed on The Nasdaq Global Market under the ticker symbol "ACFN." The last reported sale price of our common stock on September 14,2010 was 4.50 per share.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 3 of this prospectus. You should carefully review the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is	, 2010.
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You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different or additional information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information provided by this prospectus is accurate as of any date other than the date on the front of this prospectus. Our business, financial condition, results of operations and prospects may have changed since then.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may, from time to time, offer and/or sell the securities referenced herein in one or more offerings up to a total amount of \$20,000,000. This prospectus includes a general description of the securities we may offer. Each time we offer our securities, we will provide a prospectus supplement that will contain more specific information about the offering. The prospectus supplement may also add, update or change information contained in this prospectus. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. If there is any inconsistency between the information in this prospectus and a prospectus supplement, you should rely on the information in that prospectus supplement. In addition, a prospectus supplement may include a discussion of any risk factors in addition to those described in this prospectus. You should read both this prospectus and any accompanying prospectus supplement or free writing prospectus together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Certain Documents by Reference."

You should rely only on the information contained in this prospectus, any applicable prospectus supplement and those documents incorporated by reference herein. We have not authorized anyone to provide you with different information. This prospectus may only be used where it is legal to sell these securities. This prospectus is not an offer to sell, or a solicitation of an offer to buy, in any state where the offer or sale is prohibited. The information in this prospectus, any prospectus supplement or any document incorporated herein or therein by reference is accurate as of the date contained on the cover of such documents. Neither the delivery of this prospectus or any prospectus supplement, nor any sale made under this prospectus or any prospectus supplement will, under any circumstances, imply that the information in this prospectus or any prospectus supplement is correct as of any date after the date of this prospectus or any such prospectus supplement.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the registration statement of which it forms a part, any prospectus supplement and the documents incorporated by reference into these documents contain forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. We use words such as "anticipates," "believes," "plans," "expects," "future," "intends," "will," "foresee" and similar expression in the securities forward-looking statements. These forward-looking statements are subject to certain known and unknown risks and uncertainties, as well as assumptions that could cause actual results to differ materially from those reflected in these forward-looking statements. Factors that might cause actual results to differ include, but are not limited to, those referenced in the section entitled "Risk Factors" beginning on page 3 of this prospectus. Readers are cautioned not to place undue reliance on any forward-looking statements contained herein, which reflect management's opinions only as of the date hereof. Except as required by law, we undertake no obligation to revise or publicly release the results of any revision to any forward-looking statements. You are advised, however, to consult any additional disclosures we have made or will make in our reports to the SEC on Forms 10-K, 10-Q and 8-K. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained in this prospectus.

ABOUT ACORN ENERGY

This summary description of us and our business highlights selected information contained elsewhere in this prospectus or incorporated herein by reference. This summary may not contain all of the information that you should consider before buying securities in this offering. You should carefully read this entire prospectus and any applicable prospectus supplement or free writing prospectus, including each of the documents incorporated herein or therein by reference, before making an investment decision. As used herein, "we," "us," and "our" refer to Acorn Energy and its subsidiaries.

Our Company

Acorn Energy is a publicly-traded holding company with equity interests in CoaLogix, Coreworx, DSIT, Gridsense and US Sensor Systems Inc. These companies leverage advanced technologies to transform and upgrade the energy infrastructure around the world. Acorn companies are focused on three problems in the energy sector: improving the efficiency of the energy grid, reducing the risk for owners of large energy assets, and reducing the environmental impact of the energy sector. Acorn's strategy is to take primarily controlling positions in companies led by great entrepreneurs.

Through our majority- or wholly-owned operating subsidiaries, we provide the following services and products:

- •SCR (Selective Catalytic Reduction) catalyst and management services are provided through our CoaLogix subsidiary. SCR systems are used by coal-fired power plants to reduce nitrogen oxides (NOx) emissions.
- Naval and RT Solutions whose activities are focused on the following areas sonar and acoustic related solutions for energy, defense and commercial markets and other real-time and embedded hardware & software development and production. Naval and RT Solutions activities are provided through our DSIT Solutions Ltd. subsidiary.
- •Software for integrated project information and cost control solutions in the energy exploration and power generation markets. The software is used primarily for management of large capital projects. The software and solutions are provided by our Coreworx subsidiary and by Decision Dynamics which was acquired by Coreworx in April 2010.
- •Smart grid distribution automation products and services are provided by GridSense which was acquired by us in May 2010. GridSense's activities also includes the activities of On-Line Monitoring Inc. ("OMI"), a manufacturer of on-line substation monitoring equipment based in Exton, PA which was acquired by GridSense in May 2010. OMI is recognized as a leader in the monitoring of transformer bushings and offers products that provide continuous online testing and measurement of critical substation assets.
- Energy and security sensor systems are provided by our USSI subsidiary which was effectively acquired by us in February 2010. USSI's primary focus is to develop and produce fiber optic sensing systems for the energy and security markets.

Our Corporate Information

Our executive offices are located at 4 West Rockland Road, Montchanin, Delaware 19710, our telephone number at that location is (302) 656-1707, and our website can be accessed at www.acornenergy.com. Information contained in our website does not constitute part of this prospectus.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the specific risks described under the heading "Risk Factors" in the applicable prospectus supplement, and under the caption "Risk Factors" in any of our filings with the SEC pursuant to Sections 13(a), 14 or 15(d) of the Exchange Act, which are incorporated herein by reference, before making an investment decision. Each of the risks described could adversely and materially affect our business, financial conditions and operating results. As a result, the trading price of our common stock could decline and you may lose all or a part of your investment in our common stock. For more information see "Where You Can Find More Information" and "Incorporation of Certain Documents By Reference," on page 16 of this prospectus.

USE OF PROCEEDS

Unless we state otherwise in the applicable prospectus supplement accompanying this prospectus, we expect to add substantially all of the net proceeds of the sale of securities by us to our general funds for general corporate purposes, including working capital, the repayment or reduction of long-term and short-term debt and possible acquisitions. We may invest funds that we do not immediately require in short-term marketable securities.

From time to time, we may engage in additional public or private financings of a character and amount which we may deem appropriate.

SECURITIES WE MAY OFFER

We may, from time to time offer under this prospectus, separately or together:

• common stock;

debt securities;

warrants to purchase securities;

rights to purchase common stock; and

• units.

The aggregate initial offering price of the offered securities will not exceed \$20,000,000.

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DESCRIPTION OF CAPITAL STOCK

General

Our Certificate of Incorporation, as amended, (the "Certificate of Incorporation") authorizes 30,000,000 shares of capital stock, all of which has been designated as common stock, \$.01 par value per share. We do not have any authorized preferred stock. The foregoing and the following description of capital stock give effect to the Certificate of Incorporation and the provisions of the applicable Delaware law.

Common Stock

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities. The common stock has no preemptive or conversion rights or other subscription rights.

Warrants and Options

As of June 30, 2010, warrants to purchase 233,306 shares of our common stock at a weighted average exercise price of \$4.50 per share, and options to purchase 1,872,665 shares of our common stock at a weighted average exercise price of \$3.82 per share, were outstanding.

Anti-Takeover Provisions

Our By-Laws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the board of directors. At an annual meeting, stockholders may consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to the Secretary timely written notice, in proper form, of his or her intention to bring that business before the meeting. Our By-laws do not give the board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our By-laws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

Under Delaware law, a special meeting of stockholders may be called by the board of directors or by any other person authorized to do so in our Certificate of Incorporation or our By-Laws. Our By-Laws authorize only our board of directors or our President to call a special meeting of stockholders. Because our stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of the board of directors by calling a special meeting of stockholders prior to such time as a majority of the board of directors believed or the President believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual meeting.

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Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company LLC, 59 Maiden Lane, Plaza Level, New York, NY 10038.

DESCRIPTION OF DEBT SECURITIES

This prospectus describes the general terms and provisions of the debt securities we may offer and sell by this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a prospectus supplement. We will also indicate in the prospectus supplement whether the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may offer under this prospectus up to \$20,000,000 in aggregate principal amount of debt securities, or if debt securities are issued at a discount, or in a foreign currency or composite currency, such principal amount as may be sold for an initial offering price of up to \$20,000,000. We may offer debt securities in the form of either senior debt securities or subordinated debt securities. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the "debt securities." Unless otherwise specified in a prospectus supplement, the senior debt securities will be our direct, unsecured obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. The subordinated debt securities generally will be entitled to payment only after payment of our senior debt.

The debt securities will be issued under an indenture between us and a trustee, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. We have summarized the general features of the debt securities to be governed by the indenture. The summary is not complete. The executed indenture will be incorporated by reference from a Current Report on Form 8-K. We encourage you to read the indenture, because the indenture, and not this summary, will govern your rights as a holder of debt securities. Capitalized terms used in this summary will have the meanings specified in the indenture. References to "we," "us" and "our" in this section, unless the context otherwise requires or as otherwise expressly stated, refer to Acorn Energy, Inc., excluding its subsidiaries.

Additional Information

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors, or a committee thereof, and set forth or determined in the manner provided in an officers' certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series, including any pricing supplement.

We may issue an unlimited amount of debt securities under the indenture, and the debt securities may be in one or more series with the same or various maturities, at par, at a premium or at a discount. Except as set forth in any prospectus supplement, we will also have the right to "reopen" a previous series of debt securities by issuing additional debt securities of such series without the consent of the holders of debt securities of the series being reopened or any other series. Any additional debt securities of the series being reopened will have the same ranking, interest rate, maturity and other terms as the previously issued debt securities of that series. These additional debt securities, together with the previously issued debt securities of that series, will constitute a single series of debt securities under the terms of the applicable indenture.

We will set forth in a prospectus supplement, including any pricing supplement, relating to any series of debt securities being offered, the aggregate principal amount and other terms of the debt securities, which will include some or all of the following:

• the title;

- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and the name of the depository;

the maturity date;

- •the interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
 - whether or not the debt securities will be secured or unsecured, and the terms of any securities;
 - classification as senior or subordinated debt securities;
- in the case of subordinated debt securities, the degree, if any, to which the subordinated debt securities of the series will be senior to or be subordinated to other indebtedness of our in right of payment, whether the other indebtedness is outstanding or not;
- the terms on which any series of debt securities may be convertible into or exchangeable for our common stock or other of our securities, including (a) provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option and (b) provisions pursuant to which the number of shares of common stock or other securities of ours that the holders of the series of debt securities receive would be subject to adjustment;
 - the place where payments will be payable;
 - our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities;
- whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;
 - whether we will be restricted from incurring any additional indebtedness;
 - any listing of a series of debt securities on a securities exchange or market;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof; and
 - any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities.