



DIVISION OF
CORPORATION FINANCE

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

October 12, 2010

Mr. John A. Moore
President and Chief Executive Officer
Acorn Energy, Inc.
4 West Rockland Road
Montchanin, DE 19710

**Re: Acorn Energy, Inc.
Registration Statement on Form S-3
Filed September 16, 2010
File No. 333-169434**

Dear Mr. Moore:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please provide an analysis of your eligibility to use Form S-3 for this offering. To the extent you are relying on General Instruction I.B.6 to use Form S-3, please provide the calculation required by General Instruction I.B.6.(a) on the outside front cover of the prospectus. Refer to Instruction 7 to General Instruction I.B. of Form S-3.

Description of Capital Stock, page 4

2. Please state whether holders of your capital stock have cumulative voting rights.

Description of Debt Securities, page 5

3. In the third paragraph, you state, "The debt securities will be issued under an indenture between [you] and a trustee." If the trustee is known, please disclose the name of the trustee and the nature of any material relationship the trustee may have with you. Please also

disclose the percentage of securities of the class necessary to require the trustee to take action and what indemnification the trustee may require before proceeding to enforce any liens. Refer to Item 202(b)(10) of Regulation S-K.

Description of Rights, page 13

4. Please confirm that any prospectus supplement relating to the issuance of rights will disclose the amount of securities called for by the rights, the period during which and the price at which the rights are exercisable, any provisions for changes to or adjustments in the exercise price, and any other material terms of such rights. See Item 202(c) of Regulation S-K.

Exhibits, page II-2

5. We note that you incorporate by reference the form of Indenture for Debt Securities that you filed with an earlier registration statement on August 13, 2009. Please note that any incomplete exhibit which has been filed in preliminary form may not be incorporated by reference in any subsequent filing, as required by Instruction 1 to Item 601 of Regulation S-K. Please revise accordingly.
6. We note that you intend to file Form T-1 on a delayed basis. Please note that this form should be filed under the electronic form type "305B2". Please revise to make this clear, as the footnotes to the exhibit table do not indicate whether the form is filed with the registration statement or will be filed after effectiveness. In addition, please ensure that you refer to Rule 305(b)(2), rather than 302(b)(2).

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

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- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Jessica Dickerson, Staff Attorney, at (202) 551-3749 or me at (202) 551-3765 with any other questions.

Sincerely,

Pamela Long
Assistant Director

cc: Sheldon Krause, Esq. (VIA FACSIMILE)