



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4631

September 9, 2015

Via E-mail

Mr. Michael Barth
Chief Financial Officer
Acorn Energy, Inc.
3844 Kennett Pike
Wilmington, DE 19807

**Re: Acorn Energy, Inc.
Form 10-K
Filed March 31, 2015
File No. 1-33886**

Dear Mr. Barth:

We have reviewed your filing and have the following 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 within ten business days by providing the requested information, or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2014

Outside Front Cover Page

1. We note that on the outside front cover page of this filing, as well as your other periodic filings, you present your Commission file number for periodic reports as 0-19771. It is actually 001-33886. Please use the correct file number in future filings.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 34

Liquidity and Capital Resources, page 51

2. Please ensure that in future filings you clearly disclose when each of your debt arrangements matures. For example, we note that on page F-25 you disclose that one of your Israeli lines of credit expires in December 2015, but you do not disclose this

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information, specify which line of credit it applies to, or disclose the date that the line of credit expires, under this section.

3. You refer here to Acorn's failure to comply with the financial covenants under its guaranty for GridSense's debt. Please ensure that in future filings you specify the material financial covenants in your debt agreements, as well as your current compliance with those covenants, including quantitative disclosure.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Jenn Do at (202) 551-3743 or me at (202) 551-3854 if you have questions regarding comments on the financial statements and related matters. Please contact Leland Benton at (202) 551-3791, or Craig Slivka, Special Counsel, at (202) 551-3729, with any other questions.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien
Branch Chief
Office of Manufacturing and
Construction