

they are not exercised subject to their cashless exercise provisions.

The selling security holders may periodically sell the shares directly or through agents, underwriters or dealers. The shares may be sold:

- in the over-the-counter market, in privately negotiated transactions or otherwise;
- directly to purchasers or through agents, brokers, dealers or underwriters; and

at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices.

We urge you to carefully read this prospectus and any accompanying prospectus supplement before you make an investment decision.

Our common stock is listed on the Nasdaq Global Market under the symbol "ACFN." On November 18, 2014, the closing price of our common stock was \$1.01.

Investing in our securities involves certain risks. You should consider the information under "Risk Factors" on page 1 in deciding whether to buy any shares of our common stock.

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 November 25, 2014

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The terms "ACFN," the "Company," "we," "our" and "us" refer to Acorn Energy, Inc. and its subsidiaries unless the context suggests otherwise. The term "you" refers to a prospective purchaser of our common stock.

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

Certain statements contained in, or incorporated by reference in, this prospectus are forward-looking in nature. These statements can be identified by the use of forward-looking terminology such as "believes," "expects," "may," "will," "should," "anticipates," or the negatives thereof or comparable terminology, or by discussions of strategy. You are cautioned that our business and operations are subject to a variety of risks and uncertainties and, consequently, our actual results may materially differ from those projected by any forward-looking statements. Certain of these risks and uncertainties are discussed below under the heading "Risk Factors." We make no commitment to revise or update any forward-looking statements in order to reflect events or circumstances after the date any such statement is made.

RISK FACTORS

Investing in our securities entails substantial risk. In deciding whether to invest in our securities, you should carefully consider the information contained in this prospectus, information incorporated by reference into this prospectus, particularly the information under the heading "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2013, and information that we file with the Securities and Exchange Commission from time to time. The information in this prospectus is complete and accurate as of this date, but the information may change after the date of this prospectus.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares by the selling security holders. However, we will receive the exercise price of the warrants, to the extent they are not exercised subject to their cashless exercise provisions. Any proceeds we receive from the exercise of the warrants will be used for general working capital purposes.

SELLING SECURITY HOLDERS

On October 31, 2014, we entered into a Securities Purchase Agreement pursuant to which the selling security holders listed below agreed to purchase in a private placement transaction (i) an aggregate of 4,285,714 shares of our common stock and (ii) warrants to purchase an aggregate of 2,142,857 shares of our common stock

This prospectus covers the sale by the selling security holders from time to time of 6,428,571 shares of common stock, which includes the shares of common stock sold in the private placement and the shares of common stock issuable upon exercise of the warrants issued in the private placement.

We issued the securities to the selling security holders without registration under the Securities Act of 1933 (the "Securities Act") in reliance upon the exemption provided by Section 4(2) of the Securities Act for transactions not invloving a public offering. Prior to issuance, each selling security holder represented to us that it was an accredited investor, as defined in Rule 501 of Regulation D under the Securities Act, and that it was acquiring the securities for investment purposes only and not with a view to, or sale in connection with, any distibution thereof.

The term "selling security holder" includes (1) each person and entity that is identified in the table below (as such table may be amended from time to time by means of an amendment to the registration statement of which this prospectus forms a part) and (2) any transferee, donee, pledgee or other successor of any person or entity named in the table that acquires any of the shares of common stock covered by this prospectus in a transaction exempt from the registration requirements of the Securities Act of 1933 and that is identified in a supplement or amendment to this prospectus.

We have listed below:

the name of each selling security holder;

the number of shares of common stock beneficially owned by the selling security holder as of the date of this prospectus;

- the maximum number of shares of common stock being offered by each of them in this offering; and
- -the number of shares of common stock to be owned by the selling security holder after this offering (assuming sale of such maximum number of shares) and the percentage of the class which such number constitutes (if one percent or

more).

The footnotes to the table identify each selling security holder that is a registered broker-dealer or an affiliate of a registered broker-dealer.

Except as otherwise noted below, during the last three years, no selling security holder has been an officer, director or affiliate of our company, nor has any selling security holder had any material relationship with our company or affilliates during that period. Each selling security holder represented at the closing of the private placement that it did not have any contract, undertaking, agreement or arrangement with any person to sell, transfer, pledge, hypothecate, grant any option to purchase or otherwise dispose of any of the securities. The selling security holders purchased the securities in the ordinary course of business, to the best of our knowledge.

The shares of common stock being offered hereby are being registered to permit public secondary trading, and the selling security holders are under no obligation to sell all or any portion of their shares included in this prospectus. The information contained in the following table is derived from information provided by the selling security holders, our books and records, as well as from our transfer agent. The following table assumes the sale of all securities covered by this prospectus.

Selling Security Holder	Shares Beneficially Owned Prior to Offering		Shares Bein Offered	g	Shares Beneficially Owned After Offering	Percentage of Shares Beneficially Owned After Completion of Offering*
Anson Investments Master Fund LP (1)	712,500	(2)	712,500	(2)	0	**
Capital Ventures International (3) (4)	712,500	(2)	712,500	(2)	0	**
Cranshire Capital Master Fund, Ltd. (5) (6)	585,804	(7)	585,804	(7)	0	**
Robert Dziedzic	300,000	(8)	300,000	(8)	0	**
Empery Asset Master, LTD (9)	149,859	(10)	149,859	(10)	0	**
Empery Tax Efficient, LP (11)	42,609	(12)	42,609	(12)	0	**
Empery Tax Efficient II, LP (13)	332,532	(14)	332,532	(14)	0	**
Equitec Specialists, LLC (15) (16) (17)	195,267	(18)	195,267	(18)	0	**
Iroquois Master Fund Ltd. (19)	397,500	(20)	397,500	(20)	0	**
Newland Master Fund, Ltd. (21)	375,000	(22)	375,000	(22)	0	**
J. Victor & Barbara Samuels	712,500	(2)	712,500	(2)	0	**
Tristan Offshore Fund, Ltd. (23)	873,786	(24)	655,150	(25)	218,636	**
Tristan Partners, L.P. (23)	1,684,807	(26)	1,257,350	(27)	427,457	1.6 %

M5V Advisors Inc. and Frigate Ventures LP ("M5V" and "Frigate"), the Co-Investment Advisers of Anson Investments Master Fund LP ("Anson"), hold voting and dispositive power over the common stock held by Anson.

- (1) Bruce Winson is the managing member of Admiralty Advisors LLC, which is the general partner of Frigate. Moez Kassam and Adam Spears are directors of M5V. Mr. Winson, Mr. Kassam and Mr. Spears each disclaim beneficial ownership of these shares except to the extent of their pecuniary interest therein. The principal business address of Anson is 190 Elgin Ave; George Town, Grand Cayman.
- Consists of 475,000 shares of common stock and 237,500 shares of common stock issuable upon exercise of warrants.
 - (3) This selling security holder is an affiliate of a registered broker-dealer. Heights Capital Management, Inc., the authorized agent of Capital Ventures International ("CVI"), has discretionary authority to vote and dispose of the shares held by CVI and may be deemed to be the beneficial owner of these
- (4) shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares.
- (5) Cranshire Capital Advisors, LLC ("CCA") is the investment manager of Cranshire Capital Master Fund, Ltd. ("Cranshire Master Fund") and has voting control and investment discretion over securities held by Cranshire Master Fund. Mitchell P. Kopin ("Mr. Kopin"), the president, the sole member and the sole member of the Board of Managers of CCA, has voting control over CCA. As a result, each of Mr. Kopin and CCA may be deemed to have

^{*} Based upon 26,475,591 shares outstanding.

^{**}Less than 1%.

beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the securities held by Cranshire Master Fund.

CCA is also the investment manager for managed accounts for Equitec Specialists, LLC ("Equitec") and CCA has voting control and investment discretion over securities held in the managed accounts for Equitec. Mr. Kopin, the president, the sole member and the sole member of the Board of Managers of CCA, has voting control over CCA.

(6) As a result, each of Mr. Kopin and CCA also may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of an additional 195,267 shares of common stock of the issuer, consisting of (i) 130,178 shares of common stock owned by Equitec and (iv) 65,089 shares of common stock that are issuable upon exercise of warrants owned by Equitec.

- (7) Consists of 390,536 shares of common stock and 195,268 shares of common stock issuable upon exercise of warrants.
- (8) Consists of 200,000 shares of common stock and 100,000 shares of common stock issuable upon exercise of warrants.
 - Empery Asset Management LP, the authorized agent of Empery Asset Master Ltd ("EAM"), has discretionary authority to vote and dispose of the shares held by EAM and may be deemed to be the beneficial owner of these
- (9) shares. Martin Hoe and Ryan Lane, in their capacity as investment managers of Empery Asset Management LP, may also be deemed to have investment discretion and voting power over the shares held by EAM. EAM, Mr. Hoe and Mr. Lane each disclaim any beneficial ownership of these shares.
- (10) Consists of 99,906 shares of common stock and 49,953 shares of common stock issuable upon exercise of warrants.
 - Empery Asset Management LP, the authorized agent of Empery Tax Efficient, LP ("ETE"), has discretionary authority to vote and dispose of the shares held by ETE and may be deemed to be the beneficial owner of these
- (11) shares. Martin Hoe and Ryan Lane, in their capacity as investment managers of Empery Asset Management LP, may also be deemed to have investment discretion and voting power over the shares held by ETE. ETE, Mr. Hoe and Mr. Lane each disclaim any beneficial ownership of these shares.
- Consists of 28,406 shares of common stock and 14,203 shares of common stock issuable upon exercise of warrants.
 - Empery Asset Management LP, the authorized agent of Empery Tax Efficient II, LP ("ETE II"), has discretionary authority to vote and dispose of the shares held by ETE II and may be deemed to be the beneficial owner of these
- (13) shares. Martin Hoe and Ryan Lane, in their capacity as investment managers of Empery Asset Management LP, may also be deemed to have investment discretion and voting power over the shares held by ETE II. ETE II, Mr. Hoe and Mr. Lane each disclaim any beneficial ownership of these shares.
- (14) Consists of 221,688 shares of common stock and 110,844 shares of common stock issuable upon exercise of warrants.
 - Equitec is an affiliate of a broker-dealer. Equitec acquired the shares being registered hereunder in the ordinary
- (15) course of business, and at the time of the acquisition of the shares and warrants described herein, Equitec did not have any arrangements or understandings with any person to distribute such securities.
 - Cranshire Capital Advisors, LLC ("CCA") is the investment manager of a managed account for Equitec Specialists, LLC ("Equitec") and has voting control and investment discretion over securities held by Equitec in such managed
- account. Mitchell P. Kopin ("Mr. Kopin"), the president, the sole member and the sole member of the Board of Managers of CCA, has voting control over CCA. As a result, each of Mr. Kopin and CCA may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the securities held by Equitec in such managed account.
 - CCA is also the investment manager of Cranshire Capital Master Fund, Ltd. ("Cranshire Master Fund"). Mr. Kopin, the president, the sole member and the sole member of the Board of Managers of CCA, has voting control over
- (17) CCA. As a result, each of Mr. Kopin and CCA may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the securities held by Cranshire Master Fund described above in footnote 7.
- (18) Consists of 130,178 shares of common stock and 65,089 shares of common stock issuable upon exercise of warrants.
- (19) Iroquois Capital Management L.L.C. ("Iroquois Capital") is the investment manager of Iroquois Master Fund Ltd ("IMF"). Consequently, Iroquois Capital has voting control and investment discretion over securities held by IMF. As managing members of Iroquois Capital, Joshua Silverman and Richard Abbe make voting and investment decisions on behalf of Iroquois Capital in its capacity as investment manager to IMF. As a result of the foregoing, Mr. Silverman and Mr. Abbe may be deemed to have beneficial ownership (as determined under Section 13(d) of

the Securities Exchange Act of 1934, as amended) of the securities held by IMF.

- Consists of 265,000 shares of common stock and 132,500 shares of common stock issuable upon exercise of warrants.
 - (21) Michael Vermut has the power to vote or dispose of the securities held by this selling security holder.
- Consists of 250,000 shares of common stock and 125,000 shares of common stock issuable upon exercise of warrants.

- J. Carlo Cannell, in his capacity as Managing Member of Cannell Capital LLC, has the power to vote or dispose of the securities held by this selling security holder.
- Consists of 655,403 shares of common stock and 218,383 shares of common stock issuable upon exercise of warrants.
- Consists of 436,767 shares of common stock and 218,383 shares of common stock issuable upon exercise of warrants.
- (26) Consists of 1,265,690 shares of common stock and 419,117 shares of common stock issuable upon exercise of warrants.
- (27) Consists of 838,233 shares of common stock and 419,117 shares of common stock issuable upon exercise of warrants.

PLAN OF DISTRIBUTION

Each selling security holder (the "Selling Stockholders") of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal Trading Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;

- · purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
 - an exchange distribution in accordance with the rules of the applicable exchange;
 - privately negotiated transactions;
 - settlement of short sales;

in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

- a combination of any such methods of sale; or
- · any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"), if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

The Selling Stockholders will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The Selling Stockholders have advised us that there is no underwriter acting in connection with the proposed sale of the resale securities by the Selling Stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of securities of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the shares of Common Stock which may be offered pursuant to this prospectus has been passed upon by Eilenberg & Krause LLP, counsel to the Company. Sheldon Krause, a partner of Eilenberg & Krause LLP, is our Assistant Secretary.

EXPERTS

The financial statements incorporated in this prospectus by reference to our Annual Report on Form 10-K for the year ended December 31, 2013 have been so incorporated in reliance on the report of Friedman LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus.

We incorporate by reference the following documents:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 (filed on March 17, 2014);

Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2014 (filed on May 12, 2014), June 30, 2014 (filed August 11, 2014) and September 30, 2014 (filed on November 12, 2014);

The description of our common stock contained in our registration statement on Form 8-A, declared effective by the SEC in February 11, 1992; and

Our Current Reports on Form 8-K filed on January 9, 2014, June 3, 2014, July 30, 2014, September 29, 2014, -October 31, 2014, November 5, 2014 (and Amendment No.1 thereto on Form 8-K/A filed on November 6, 2014) and November 10, 2014.

All documents that we subsequently file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 prior to the termination of the offering shall also be deemed to be incorporated by reference into this prospectus.

Anyone may request a free copy of any of the documents that are incorporated by reference into this prospectus by writing to the Secretary of our company at Acorn Energy, Inc., 3903 Centerville Road, Wilmington, DE 19807 or by telephone at (302) 656-1708.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934. Accordingly, we file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document that we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to you free of charge at the SEC's website at http://www.sec.gov.

You can read and print press releases, financial statements, our most recent annual and quarterly reports and additional information about us, free of charge, at our website at http://www.acornenergy.com.

This prospectus is a part of a registration statement on Form S-3 filed by us with the SEC under the Securities Act of 1933. This prospectus does not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the shares of our common stock offered hereby, please refer to the registration statement. The registration statement may be inspected at the public reference facilities maintained by the SEC at the addresses set forth above. Statements in this prospectus about any document filed as an exhibit are not necessarily complete and, in each instance, you should refer to the copy of such document filed with the SEC. Each such statement is qualified in its entirety by such reference.