

ACORN ENERGY, INC.
Form 424B5
October 07, 2013

Filed Pursuant to Rule 424(b)(5)

Registration Statement No. 333-169434

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell nor are we soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED OCTOBER 4, 2013

PROSPECTUS SUPPLEMENT

(To Prospectus dated October 27, 2010)

\$15,000,000

Acorn Energy, Inc.

Shares

Common Stock

We are offering _____ shares of our common stock. Our common stock is quoted on the NASDAQ Global Market under the symbol "ACFN." On October 4, 2013, the last reported sale price of our common stock on the NASDAQ Global Market was \$4.94 per share.

Investing in our securities involves a high degree of risk. See the "Risk Factors" section on page S-12 of this prospectus supplement and the corresponding sections in the accompanying prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2012, as well as our subsequent filings with the

Securities and Exchange Commission under the Securities Exchange Act of 1934, which are incorporated by reference into this prospectus supplement.

| | Per Share | Total |
|--|----------------------|--------------|
| Public offering price | \$ | \$ |
| Underwriting discount (1) | \$ | \$ |
| Offering proceeds to us, before expenses | \$ | \$ |

(1) The underwriters will receive compensation in addition to the underwriting discount, as set forth in the section entitled “Underwriting” beginning on page S-37 upon the closing of this offering, which consists of five-year compensation warrants entitling the underwriters to purchase 6.5% of the aggregate number of shares of common stock issued in this offering, including shares issued pursuant to the exercise of the over-allotment option, with an exercise price equal to 110% of the price per share of the common stock sold in this offering. The underwriter compensation warrants and the common stock issuable upon exercise of these underwriter compensation warrants are covered by this prospectus supplement. We have also agreed to reimburse the underwriters for certain expenses incurred by the underwriter up to an amount not to exceed \$46,500 for all expenses (including background checks with respect to our senior management) other than legal fees plus the greater of \$100,000 or 1% of the gross proceeds of the offering for legal fees. See the heading entitled “Underwriting” on page S-37 of this prospectus supplement for additional disclosure regarding compensation to the underwriters payable by us.

We have granted the underwriters an option for a period of 45 days to purchase an aggregate of up to an additional _____ shares of our common stock solely to cover over-allotments. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable will be \$ _____ and the total proceeds to us, before expenses, will be \$ _____.

Delivery of the shares of common stock is expected to be made on or about October _____, 2013.

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

Sole Book Running Manager

Maxim Group LLC

Co-Managers

Chardan Capital Markets LLC National Securities Corporation FIG Partners LLC

The date of this prospectus supplement is October , 2013.

TABLE OF CONTENTS

| | |
|---|------|
| ABOUT THIS PROSPECTUS SUPPLEMENT | S-1 |
| SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS | S-1 |
| PROSPECTUS SUPPLEMENT SUMMARY | S-2 |
| THE OFFERING | S-11 |
| RISK FACTORS | S-12 |
| USE OF PROCEEDS | S-32 |
| PRICE RANGE OF COMMON STOCK | S-33 |
| DIVIDEND POLICY | S-34 |
| CAPITALIZATION | S-35 |
| DILUTION | S-35 |
| RELATED PARTY TRANSACTIONS | S-36 |
| UNDERWRITING | S-37 |
| LEGAL MATTERS | S-40 |
| EXPERTS | S-40 |
| WHERE YOU CAN FIND MORE INFORMATION | S-40 |
| INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE | S-41 |

Accompanying Prospectus dated October 27, 2010

| | |
|---|----|
| ABOUT THIS PROSPECTUS | 1 |
| SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS | 1 |
| ABOUT ACORN ENERGY | 2 |
| RISK FACTORS | 3 |
| USE OF PROCEEDS | 3 |
| SECURITIES WE MAY OFFER | 3 |
| DESCRIPTION OF CAPITAL STOCK | 4 |
| DESCRIPTION OF DEBT SECURITIES | 5 |
| DESCRIPTION OF WARRANTS | 11 |
| DESCRIPTION OF RIGHTS | 13 |
| DESCRIPTION OF UNITS | 13 |
| PLAN OF DISTRIBUTION | 13 |
| LEGAL MATTERS | 16 |
| EXPERTS | 16 |
| WHERE YOU CAN FIND MORE INFORMATION | 16 |
| INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE | 16 |

This prospectus supplement and the accompanying prospectus relate to the sale of shares of our common stock. You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein. We have not authorized any other

person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus supplement and the accompanying prospectus is accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement and accompanying prospectus or of any sale of shares. Our business, financial condition, results of operations and prospects may have changed after the date of this prospectus supplement. You should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

ABOUT THIS PROSPECTUS SUPPLEMENT

You should carefully read this entire prospectus supplement and the accompanying prospectus, including the information included and referred to under “Risk Factors” below, the information incorporated by reference in this prospectus supplement and in the accompanying prospectus and the financial statements and the other information incorporated by reference in the accompanying prospectus, before making an investment decision.

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration process. Under this shelf registration process, we may offer and sell any combination of securities described in the accompanying prospectus in one or more offerings, up to a total dollar amount of \$20,000,000 of which approximately \$15,385,000 remains available. The accompanying prospectus provides you with a general description of the securities we may offer. Each time we use the accompanying base prospectus to offer securities, we will provide a prospectus supplement (such as this prospectus supplement) that will contain specific information about the terms of that offering. This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein include important information about us, the securities we are offering and underwriting arrangements of the offering and other information you should know before investing.

To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus, the statements made in this prospectus supplement modify or supersede those made in the accompanying prospectus. You should read both this prospectus supplement and the accompanying prospectus together with additional information described under the headings, “Incorporation of Certain Documents by Reference” and “Where You Can Find More Information,” which are collectively referred to herein as “this prospectus.”

Our executive offices are located at 3903 Centerville Road, Wilmington, Delaware 19807, our telephone number at that location is (302) 656-1707, and our website is www.acornenergy.com. Information contained in our website does not constitute part of this prospectus supplement or the accompanying prospectus. Unless otherwise indicated or the context otherwise requires, references to “Acorn Energy”, “Acorn”, “ACFN”, the “Company”, “we”, “our” or “us” refer to Acorn Energy, Inc. and its subsidiaries.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the registration statement of which it forms a part 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 expressions to identify these 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 set forth and referenced in the section entitled “Risk Factors” beginning on page S-12 of this prospectus supplement. 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 supplement and the accompanying prospectus.

S-1

PROSPECTUS SUPPLEMENT SUMMARY

*This summary description highlights selected information contained elsewhere in this prospectus supplement or incorporated herein by reference. This summary does not contain all of the information that you should consider before buying securities in this offering. You should carefully read this entire prospectus supplement, including the "Risk Factors" beginning on Page S-4, and the accompanying prospectus, including each of the documents incorporated herein or therein by reference, before making an investment decision. More detailed information about our business is contained in our 2012 Annual Report on Form 10-K and in each of our 2013 quarterly reports on Form 10-Q, in each case as filed with the United States Securities and Exchange Commission. Important supplemental and updated information to the description of our business in the above mentioned reports is provided below. This information should be read together with the disclosure in those reports. **If information in this prospectus supplement is inconsistent with the information in our earlier disclosure you should rely on the information in this prospectus supplement.***

OUR COMPANY

Acorn Energy, Inc. ("Acorn" or "the Company") is a holding company focused on technology driven solutions for energy infrastructure asset management. Each of our four businesses is focused on helping its customers achieve greater productivity, reliability, security and efficiency

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

Oil and Gas Sensor Systems (formerly known as Energy and Security Sensor Systems). These products and services are provided by our US Seismic Systems, Inc. subsidiary ("USSI") which develops and produces "state of the art" fiber optic sensing systems for the energy, commercial security and defense markets.

Energy & Security Sonar Solutions. We provide sonar and acoustic related solutions for energy, defense and commercial markets with a focus on underwater site security for strategic energy installations and other advanced acoustic systems and real-time embedded hardware and software development and production through our DSIT Solutions Ltd. ("DSIT") subsidiary.

Smart Grid Distribution Automation. These products and services are provided by our GridSense™ subsidiaries (GridSense Inc. in the United States and GridSense Pty Ltd. and CHK GridSense Pty Ltd. in Australia - collectively "GridSense") which develop, market and sell remote monitoring and control systems to electric utilities and industrial facilities worldwide.

Power Generation (PG) Monitoring. These products and services are provided by our OmniMetrix™, LLC (“OmniMetrix”) subsidiary, acquired in February 2012. OmniMetrix's PG products and services deliver critical, real-time machine information to customers and provide remote diagnostics that give users real-time visibility of their equipment.

We continually evaluate opportunities related to all of our portfolio companies and our eventual goal is to position them for a strategic event, which may include co-investment by one or more third parties and/or a sale of assets or equity.

We intend to use the proceeds of this offering to provide the capital needed to successfully lead USSI down the four-step path laid out below.

S-2

Oil and Gas Sensor Systems — US SEISMIC SYSTEMS, INC. (USSI)

Our Oil and Gas Sensor Systems Segment (previously known as the Energy and Security Sensor Systems segment) is conducted through USSI, a Delaware corporation based in Chatsworth, California which was established in October 2007. USSI's primary focus is on developing and producing “state of the art” fiber optic sensing systems for the energy market. We currently own approximately 95.7% of USSI upon conversion of currently held USSI preferred stock.

Products and Services

USSI's new fiber optic sensing systems have been designed to provide users with a competitive advantage over those relying on existing sensor technology. USSI's fiber optic sensors can provide the ability to monitor the fracing process, improve production efficiency and minimize potential environmental damage at a fraction of the cost of competing technology. As further described below, primary product lines for which USSI is currently developing products include downhole fiber optic sensor systems for hydrofrac monitoring used in unconventional oil and gas exploration and recovery, and 4D seismic reservoir monitoring systems. USSI has demonstrated the highest performance down-hole seismic sensor system systems in the oil and gas industry. Based on laboratory and field data available to us, we believe that USSI's sensor systems provide the greatest sensitivity (improved signal to noise ratio), widest bandwidth (detects all signals of interest), lowest noise floor (detects quieter signals) and high temperature capable seismic sensors available today for use in the oil and gas industry.

Hydrofrac (microseismic) monitoring. The major oil companies are increasingly focusing on horizontal drilling techniques combined with hydro fracking to produce the world's vast tight oil and gas shale reserves. Of the over 35,000 wells fracked annually in the U.S. as reported by the EPA, we believe that less than 3% are monitored using micro-seismic techniques, in large part due to high cost, poor reliability and high temperature restrictions. According to a 2012 survey of decision makers within the petroleum operating companies engaged in hydraulic fracture and fracture mapping services by the oilfield research firm Welling & Co., 73% of respondents said the root cause of frac jobs not meeting performance expectations was attributed it to a failure to understand the subsurface. We believe that the only way to improve understanding of the subsurface, is via seismic monitoring with sensors specifically designed to detect and locate microseismic events.

While we previously believed based on discussion with leading industry participants, that they would monitor all their frac jobs if equipment cost can be reduced by 75% below the cost of monitoring with traditional (which we believe is achievable by utilizing USSI fiber optic sensor systems), based on our current understanding of the marketplace and customer constraints, we anticipate that the rate of adoption may occur at a slower pace. We remain optimistic, however, that the market for advanced seismic monitoring will nevertheless be sizeable based upon current pricing of \$250,000 (for a 10-level system) to \$1.0 million for a larger (40-level) monitoring system.

4D Reservoir Monitoring. In order to optimize production out of operating fields, exploration and production companies are keen to utilize technologies that allow them to understand how the reservoir is changing over time and how it is responding to enhanced recovery techniques like water injection and CO2 flooding. To produce more oil from these existing fields, increased use of 4D seismic techniques (repeated 3D seismic images to monitor the movement of oil reservoir fluids over time) are planned. For 4D to be cost-effective, permanently-installed seismic sensors are needed. Current mainstream oilfield seismic sensing systems are based upon 50 year-old technology that is too costly and unreliable for permanent installations. USSI's fiber optic seismic sensors are specifically designed to meet the demanding performance, cost, and reliability requirements needed for permanent installation and advanced 4D seismic analysis. We are currently involved in a monitoring trial with an oil supermajor where our array will be cemented in the customer's well and is being observed for a period of several weeks.

S-3

Fiber optic perimeter security. USSI has developed an all-optical security system based upon a microphonic cable that can be mounted on a fence, buried along a border/perimeter, or placed underwater in a harbor. We believe the USSI fiber optic microphonic cable is the most sensitive available as it can detect disturbance signals that are 100 times quieter than competing systems. In addition, the USSI system can detect and classify multiple simultaneous events.

Customers and Markets

While USSI continues to make nominal sales to security customers, we are not currently engaged in actively developing and marketing systems for the security market.

USSI targets its products into the oilfield geophysics market, which according to Barclays Capital 2011 E&P Spending report has a \$16-19 billion annual market size, of which approximately 10-15%, or approximately \$1.6 to 2.85 billion is for equipment such as seismic sources and sensors. USSI's -potential customers are primarily the oilfield service companies. According to the PFC Energy (an IHS Inc. company) 2012 rankings some of the leading oilfield service companies are Schlumberger, Halliburton, Baker Hughes, Ensco, Weatherford and CGG Veritas. To date, we have not sold a product for commercial deployment, as all of our sales have been for trials or pilot projects. . USSI recently announced an order from one of the world's largest oilfield services companies. We are currently focused on completing what we believe are the final steps toward having a commercial product that we hope will lead to reference customers. As a result of several recent customer trials, USSI believes that its products may be of particular interest to those oilfield services companies supporting hydro-fracking in high temperature fields who further desire the ability to deploy and retract sensing devices rather than permanently embed them in their customers' wells. USSI's products are, however, designed for mid and low temperature deployments as well and have been field tested repeatedly under those conditions.

Challenges and Updates

In connection with the trials referred to above, USSI has experienced various design and deployment challenges that have negatively impacted product performance. Although feedback from several customers indicates that the data from our sensors meets or exceeds our specifications, several customers have requested improvements regarding water blocking (primarily a solution to prevent a crack in the fiber optic cable from allowing water to penetrate the entire array), noise cancellation (a process to eliminate the impact of ambient noise on frac detection) and improved clamping mechanisms to improve vector fidelity (the ability to identify the location of a fracture point with precision). We believe that we have provided or are close to achieving solutions responsive to each of these concerns, but the time involved in resolving these technical issues has delayed our ability to ship product beyond what we had previously anticipated. In the interim, customers continue to rely on existing competing technology, primarily conventional retrievable downhole sensors. Where these systems are not capable of sustained performance (i.e., in high temperature, long-term deployments), well owners are simply foregoing monitoring.

We ramped up USSI's manufacturing capabilities and head count in anticipation of order volumes we expected would occur during the second half of 2013. Those expectations have not been realized and we do not anticipate significant array sales in 2013; it therefore may be necessary to realign expenses at USSI with the scope of current and near-term revenues. We therefore plan to closely monitor expenses to ensure they remain in line with current and projected activities. We may also make strategic hires of additional personnel with experience in the oil and gas industry to assist with our penetration into this complex market.

S-4

Our path toward full-scale production and, we believe, ultimate profitability, involves our successfully following four key steps:

Prove that our tool works. Customer feedback from the trials to date, like the supermajor conducting the trial referred to above, and others, are telling us that our data is excellent and that we meet or exceed our own published specs;

Confirm through further testing that the data we collect has economic value to our target customers. We expect to do this by further field trials with producers and the oilfield services companies that support them and are in active discussions now for more of these projects;

Increase opportunities to attract early adopters of our technology by building, as capital permits, a “fleet” of rental arrays to reduce the economic hurdle to their evaluation of our products; and

Reach a level of industry adoption and sales where we can either operate USSI profitably on our own, attract a partner with the financial and other resources necessary to scale the business, or monetize our investment through a sale or other strategic event.

ENERGY & SECURITY SONAR SOLUTIONS – DSIT SOLUTIONS LTD.

We currently own approximately 88.3% of DSIT Solutions Ltd. ("DSIT") upon conversion of currently held DSIT preferred stock. DSIT is a globally-oriented business based in Israel with expertise in sonar and acoustics and development capabilities in the areas of real-time and embedded systems. Based on these capabilities, we offer a full range of sonar and acoustic-related solutions to strategic energy installations as well as defense and homeland security markets. Commencing in 2012, DSIT began to leverage its acoustic signal processing capabilities for land seismic security applications.

Products and Services

DSIT's Energy & Security Sonar Solutions activities are focused on two areas – sonar and acoustic solutions for energy and security markets and other real-time and embedded hardware and software development and production. DSIT's other operations include IT and consulting activities whose results are not included in the Energy & Security Sonar Solutions segment.

Energy & Security Sonar Solutions.

Our energy & security sonar solutions include a full range of sonar and acoustic-related solutions to the strategic energy installation, defense and homeland security markets. DSIT's product offerings include: AquaShield™ Diver Detection Sonar (DDS), PointShield™ Portable Diver Detection Sonar (PDDS), Sonar Simulators and Trainers, Portable Acoustic Ranges (PAR), Underwater Acoustic Signal Analysis (UASA) systems and Sonar Upgrade Programs (SUP). Last year, DSIT and USSI were awarded a grant from the Israel-U.S. Binational Industrial Research and Development Foundation ("BIRD Foundation") for the joint development of a next generation integrated passive/active threat detection system for underwater site protection (PAUSS). Due to USSI's focus on its oil and gas activities, we foresee some slowdown in the development of the PAUSS in the near future. In addition to its joint efforts with USSI in underwater site protection, DSIT is exploring solutions for the perimeter fiber optic security market. DSIT and Ramot, the technology transfer company of Tel-Aviv University, recently were jointly awarded a grant from MEIMAD for the joint development of a next generation Fiber-Optic Based Perimeter Security System Interrogator. The interrogator is the optics/electronics heart of the fiber optic sensing system.

S-5

Other Real-Time and Embedded Solutions

Additional areas of development and production in real-time and embedded hardware and software include Weapon/C&C Operating Consoles for unique naval and air applications; Computerized Vision for the Semiconductor; and modems, data links and telemetry systems.

Customers and Markets

DSIT looks to sell to potential customers in areas that have significant underwater energy assets and infrastructure, including the oil platforms that drill, extract and temporarily store oil and gas, as well as the oil and gas wellheads, pipelines and pumps required to transfer the product from its location to shore. Our Energy & Security Sonar Solutions segment faces competition from several competitors, large and small, operating in worldwide markets with substantially greater financial and marketing resources. We believe that our wide range of experience and long-term relationships with large businesses as well as the strategic partnerships that we are developing will enable us to compete successfully and obtain future business.

SMART GRID DISTRIBUTION AUTOMATION – GridSense

GridSense which is 100% owned by Acorn, develops and markets remote monitoring systems to electric utilities and industrial facilities worldwide. These systems are used in a wide range of utility applications including outage management, power quality monitoring, system planning, trouble shooting and proactive maintenance, and condition monitoring. These systems provide transmission and distribution network operators with the intelligence to better and more efficiently conduct grid operations. GridSense's solutions allow end-users to cost effectively monitor the power quality and reliability parameters of electric transmission and distribution systems in applications where competitive offerings are non-existent or cost-prohibitive.

GridSense Offerings & Solutions

GridSense provides a range of offerings to utilities worldwide that help them identify, and in some cases prevent, outages and failure conditions. GridSense offerings identify issues on transformers from the substation to the poletop, overhead distribution and transmission lines, and power transformer bushings. GridSense also provides solutions for underground line monitoring, power quality analysis, and close up inspection of energized, high voltage assets. GridSense offerings include: Transformer IQ[®] - a comprehensive, cost-effective monitoring system that monitors from the substation to the residential transformer all transformer failure parameters; Line IQ[®] Systems – which provide

real-time monitoring of events, load, voltage and temperatures with intelligent algorithms for accurate fault detection and overhead line condition monitoring; Bushing IQ[®] - a continuous online system for monitoring power factor in high voltage capacitive bushings in all types of weather; PowerMonic[™] – a range of outdoor power analyzers and analytical software that provides portable, comprehensive monitoring of low-voltage circuits, including power quality profiles, transient recordings, RMS event captures, flicker, sags and swells, and remote capabilities; and HighV[™] Camera - a high-voltage inspection tool for energized assets to 345kV phase to phase.

GridSense also has several products under current development including: Grid InSite[™] - an intuitive, integrated software platform for configuring GridSense network monitoring devices, accessing their data, and turning that data into actionable, smart grid intelligence; DemandIQ[™] – a system that uses TransformerIQ[®] to detect overload conditions at the poletop transformer and, in conjunction with proprietary algorithms developed at San Diego Gas and Electric, perform direct load shedding within the household; and DistributionIQ[®] - a robust platform for battery- and maintenance-free remote monitoring of non-transformer assets and applications, including fixed capacitor banks, underground cables, and underground line faults.

Customers and Markets

The industry in which GridSense operates is characterized by intense competition from both large, established companies as well as smaller companies with specialized offerings. Strategically important markets include North America, South America, China and South Africa. Having invested heavily in an organization to support its customers in the U.S. and Canada, GridSense has grown its customer base from just a handful a few years ago to nearly 400 utility companies ranging from municipal utilities and cooperatives to large investor owned utilities. GridSense has not, however, generally been able to leverage market exposure into high volume sales. We believe this is due to the fact that until recently, GridSense's focus had been on increasing the number of pilots which, though having potential for sizeable orders, required considerable engineering resources and customization effort. Furthermore, pilot programs (consisting of deployment of one or more products on a test basis) generally last between three and eighteen months. GridSense's new management has realigned sales and engineering efforts and is focusing on fewer and more standardized opportunities with the most perceived likelihood for successful deployment and commercial-scale orders. Unlike North America, which is characterized by a large number of electricity suppliers over a vast geographic territory, the opportunities in South America, China and South Africa are focused on a small number of large electric utility operators. We utilize a network of resellers, including rental companies, electrical engineering firms, distributors, independent manufacturers' representatives and agents and are currently pursuing deployment opportunities in these aforementioned markets, including supporting local pilots that either were underway or meet our new participation criteria. We have no assurance that any of our pilot programs will ultimately result in large scale roll-out programs.

Restructuring and Financial Outlook

During the second quarter of 2013, GridSense restructured its operations in both its USA and Australian entities. This action was taken primarily in order to improve efficiency based on GridSense's revenue mix and skills mix. Accordingly, GridSense recorded a restructuring charge of \$594,000 related to severance and other termination benefits for positions made redundant both in the United States and in Australia, moving its operations to a smaller facility in Australia, the abandoned fixed assets and for products which had been produced in Australia, but will no longer be produced or supported by U.S. operations.

In addition to the impact of the restructuring, delays in anticipated orders and the slow conversion of pilots to commercial sales has kept GridSense revenues below initially projected revenues for 2013. We have, however, reduced the break-even point for GridSense by nearly \$5 million. While no assurance can be given that such will be the case, GridSense's plan for the fourth quarter of 2013 and for 2014 is being developed (together with OmniMetrix as described below) with a goal of being cash neutral to Acorn. As described below, we also believe GridSense may benefit from the addition of a recurring revenue stream following completion of a planned integration with OmniMetrix.

POWER GENERATION MONITORING - OmniMetrix, LLC

We acquired OmniMetrix™ on February 15, 2012. OmniMetrix is a Georgia limited liability company established in 1998 based in Buford, Georgia that develops and markets wireless remote monitoring systems and services for two markets - stand-by power generators and cathodic protection for the gas pipeline industry. Acorn owns 100% of OmniMetrix.

Products & Services

In the Power Generation ("PG") market, OmniMetrix sells a line of devices built on its baseline G8500 wireless remote monitor. This device is designed to be broadly applicable across all brands and models of emergency power generators. The G8500 product family provides the ability to identify whether an emergency generator is capable of operating as expected. In 2012, OmniMetrix designed and gained approval from PTCRB and AT&T for a new 4G data radio module, replacing the 2G technology used since 2007. This new device includes GPS functionality for the first time, enabling the company to bring a mobile asset tracking functionality into the market, with primary focus on mobile generators and related equipment. OmniMetrix' G8700 product line is designed specifically for this mobile market segment, and offers robust functionality and ultra-low power consumption, a critically important feature for mobile equipment.

In the Pipeline market, OmniMetrix offers two primary product lines, Rectifier Monitors and Test Point Monitors. Both of these products are used in Cathodic Protection ("CP") engineering, a process which reduces rust and corrosion on the steel pipes used to transport natural gas underground. As the name suggests, the OmniMetrix Rectifier Monitor (RM) product monitors the operation of the rectifiers, which are a critical component in the effort to prevent corrosion, and are also the most common point of failure in the corrosion system. The OmniMetrix Computer Automated Test Station (CATS) is also used to provide data points along the pipeline segment powered by the rectifier.

Customers and Markets

OmniMetrix' PG monitors have been installed on generators from original equipment manufacturers ("OEMs") such as Caterpillar, Kohler, Generac, Cummins, MTU Energy and other generator manufacturers. Based on both published and industrial sources, we estimate that the U.S. emergency power generation marketplace consists of at least 100,000 industrial generators and 150,000 residential generators per year. These new machines join an installed base of approximately two million generators. While new generators provide more useful diagnostic data thanks to their computerized controls, older machines have an ever greater need for basic monitoring due to their aging systems. Some estimates place the world market for monitoring at over 10 million installed generators.

OmniMetrix provides dual value propositions to the generator service organizations as well as to the machine owner. The dealers benefit from the receipt of performance data and status conditions from the generators they service for their customers that allows the dealer service organization to be proactive in their delivery of service to their customers, as well as to implement the OmniMetrix *SmartServiceTM* approach to analyzing the remote machines before dispatching a service truck. Since the majority of service and warranty costs are incurred from service people driving trucks, preemptive analysis of customer site conditions prior to dispatch can reduce their labor cost consequentially. From the machine owner's perspective, the OmniMetrix product provides a powerful tool to be used in their constant effort to avoid failures that come from consumables such as batteries and fuel. With proper monitoring, the large majority of machine failures can be avoided completely. This migration from failure reporting to failure prevention is fundamental to the OmniMetrix focus, and is the result of a strong data collection and analysis design point. We believe that this transition to prognostics sets OmniMetrix apart from its competitors, many of whom are still in the failure reporting phase of application development.

In addition, in January 2013, the EPA finalized amendments to the National Emissions Standards for Hazardous Air Pollutants for stationary reciprocating internal combustion engines (generators). Now, every commercial generator over a certain size is required to collect and report run times and annual emissions or face significant civil penalties. Consequently, we believe that some end-user customers as well as environmental engineering firms, will see significant value in our offering due to our ability to assist end-user customers in complying with such environmental regulations. As a result, we have increased our marketing efforts to highlight this value we provide to our customers. We are currently providing reports and information to end-user customers to assist them in their environmental compliance, and we have received positive feedback from these customers.

There are two types of competitors in the PG marketplace: independent monitoring organizations (such as OmniMetrix) who produce the monitoring systems (but not the equipment being monitored); and OEMs such as generator manufacturers or generator controls manufacturers who have begun offering customer connectivity to their machinery. We recently commissioned a market study that supports our belief that we offer an excellent product, but which indicates that our pricing strategy needs to become more aggressive in order to compete effectively with both our monitoring and OEM competitors. Whether any new pricing and marketing programs will be effective cannot be determined.

S-8

Within the CP pipeline marketplace, there are no OEM competitors, but there are several independent monitoring companies similar to OmniMetrix. While we believe that OmniMetrix systems provide greater functionality than its competitors, those competitors offer a broader range of corrosion products beyond monitoring enabling better channel penetration than OmniMetrix can accomplish. We do not anticipate significant growth in this marketing channel due to the crowded competitive field, although we are fortunate to have several repeat customers for which we are monitoring hundreds of units.

Restructuring and Financial Outlook

OmniMetrix operates primarily on a recurring revenue model where monitors are sold at or below cost in exchange for customer commitments for fixed term monitoring contracts. We have increased connections (the number of units producing revenue – primarily from monitoring subscriptions) from approximately 1,700 at the time of our acquisition in February 2012, to approximately 3,800 as of September 30, 2013. During the first half of 2013, OmniMetrix marketed primarily to dealers and distributors of the most common brands of generators. While some larger dealers have embraced the *SmartServiceTM* model, it has not universally resonated within the dealer marketplace and the rate of anticipated adoption (and thus sales of monitors and monitoring subscriptions) has been far slower than anticipated. Revenue in 2013 and expected future monitoring revenues from renewals has been significantly adversely impacted by both our inability to make new sales as well as the loss of a long-standing customer that resulted in the impairment charge previously disclosed.

We are currently refining a revised strategic direction for this company which includes marketing to end-users as well as to select dealers identified as possessing both substantial maintenance customer bases and a willingness to provide value-added services. We intend to combine the operations of OmniMetrix with GridSense in order to capitalize on synergies from both companies' machine-to-machine operating models, power assurance focus and complementary personnel, and as a first step have appointed the CEO of GridSense to also serve as CEO of OmniMetrix. At this time, we have begun to identify potential cost savings and are evaluating appropriate steps to substantially reduce the working capital requirements at OmniMetrix. We do not expect that such restructuring plan will require significant capital in the short term.

RECENT DEVELOPMENTS

As discussed above, each of our companies experienced delays in anticipated orders, lower than planned sales volume or shipment of orders and, in the case of USSI, technical challenges that collectively and materially have negatively impacted and are expected to continue to negatively impact our financial performance for the near term. We anticipate that revenue and earnings performance for the third quarter of 2013 ended September 30, 2013 (not yet reported) and for the years ending December 31, 2013 and 2014 will be materially below analyst consensus expectations. We anticipate that revenues for the third quarter of 2013 will, however, be approximately the same as those reported for the second quarter of 2013 ended June 30, 2013. Because the impairment and restructuring charges related to OmniMetrix cannot yet be determined, we currently do not have visibility into the earnings results for the third quarter. We also anticipate a material decrease in cash related to our general business activities throughout the quarter ended September 30, 2013 that is expected to be consistent with cash burn in the quarter ended June 30, 2013.

On October 3, 2013, the Company's Audit Committee determined that the Company will record an impairment charge as a result of write-downs of goodwill and/or other intangibles, and will record a restructuring charge, with respect to OmniMetrix. OmniMetrix is currently engaged in restructuring its operations to better align expenses with revenues as now projected by its new management. This is expected to result in significantly reduced utilization of its new leased facility in Buford, Georgia and to result in a write-down of a substantial portion of the carrying value of the leasehold improvements associated with the facility and other restructuring charges.

The Company is currently unable to determine the amount of the impairment and restructuring charges. The total carrying value at June 30, 2013 of the OmniMetrix goodwill was approximately \$1.9 million, other intangibles was approximately \$3.8 million and the gross amount of the leasehold improvements was approximately \$0.7 million. It is expected that these values would be written down in amounts to be determined, but that they may not necessarily be written off in their entirety. The impairment charges from write-down of the goodwill and/or other intangibles and the leasehold improvements would be non-cash expenses, while any other restructuring charges may be cash expenses. The impairment and restructuring charges would likely have a material impact on the Company's results of operations for the third quarter of 2013.

Business Developments

Despite the decline in financial performance, there have been several key developments that we believe ultimately may positively impact our future financial performance. Announcements we have made recently are as follows:

- USSI announced an order from one of the world's largest oil services companies – August 14, 2013;

- USSI announced advances in tests with a supermajor oil company – October 1, 2013;
- DSIT and Tel Aviv University collaborated to win development grant – September 3, 2013; and

GridSense/OmniMetrix are being combined into a single operating division exploiting synergies with the goal of accelerating the path to market for products—July 31, 2013.

S-10

THE OFFERING

| | |
|--|--|
| Proposed Aggregate Offering Size | \$15,000,000 |
| Common Stock Offered | |
| Common Stock to be Outstanding After This Offering (1) | shares |
| Over-allotment Option | <p>We have granted the underwriters a 45-day option to purchase up to an additional _____ shares of common stock solely to cover over-allotments. If the underwriters exercise the option in full, the total underwriting discount payable by us will be \$ _____ and the total proceed to us before expenses will be \$ _____.</p> |
| Use of Proceeds | <p>We intend to use the net proceeds received from the sale of the shares primarily to provide working capital for the development of our USSI subsidiary and for other general corporate purposes. See “Use of Proceeds” on page S-32.</p> |
| Underwriter Compensation Warrants | <p>The Company shall issue to the representative of the underwriters, upon closing of this offering, compensation warrants entitling the representative to purchase 6.5% of the aggregate number of shares of common stock issued in this offering, including shares issued pursuant to the exercise of the over-allotment option. The underwriter warrants will have a term of five years and may be exercised on a cashless basis. The underwriter warrants are exercisable commencing 180 days after the date of the prospectus supplement.</p> |
| Indication of Interest to Participate by Certain of our Directors and Officers | <p>Certain of our directors and officers have indicated an interest in purchasing an aggregate of approximately 140,000 shares of our common stock in this offering on the same terms and subject to the same conditions as the other investors in the offering.</p> |
| Risk Factors | <p>This investment involves a high degree of risk. See “Risk Factors” included and referred to on page S-12 for a discussion of factors you should carefully consider before deciding to invest in our common stock.</p> |
| NASDAQ Global Market Symbol | ACFN |

(1) Does not include, as of September 30, 2013: 23,000 warrants outstanding, all of which are exercisable at a price of \$3.68 per share, and 1,107,159 options outstanding and exercisable with a weighted average exercise price of \$4.78 per share, and 396,723 options that are outstanding, but have not yet vested. Except as otherwise noted, all information in this prospectus supplement assumes no exercise of the underwriters’ over-allotment option.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Before making an investment decision you should carefully consider the risks described below and the risks and uncertainties described in our other periodic filings, including Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2012, which is incorporated by reference herein, and the other information set forth or incorporated by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties described or incorporated by reference in this prospectus supplement and the accompanying prospectus are not the only ones we face. Additional risks and uncertainties that we are unaware of or that we believe are not material at this time could also materially adversely affect our business, financial condition or results of operations. You should also refer to our financial statements and the notes to those statements, which are incorporated by reference in this prospectus supplement. We may from time to time make written or oral statements that contain forward-looking information. However, our actual results may differ materially from our expectations, statements or projections. The following risks and uncertainties, together with other factors not presently determinable, could cause actual results to differ from our expectations, statements or projections.

RISKS RELATED TO THE OFFERING

We have broad discretion in how we use the proceeds from this offering and we may use the proceeds in ways with which you disagree.

Our management has broad discretion over how the proceeds of this offering are used and could spend the proceeds in ways with which you may not agree. We currently intend to use the net proceeds received from the sale of the securities primarily to provide working capital for our USSI and other general corporate purposes. Pending the use of the proceeds in this offering, we will invest them. However, the proceeds may not be invested in a manner that yields any significant or any return. The failure of our management to use the proceeds of this offering effectively could have a materially adverse effect on our business, financial condition and prospects.

You will experience immediate dilution in the book value per share of the common stock you purchase.

The public offering price per share of common stock is expected substantially higher than the net tangible book value per share of our outstanding common stock. As a result, based on our capitalization as of June 30, 2013, investors purchasing common stock in this offering will incur immediate dilution of \$ per share of common stock purchased, based on the offering price of \$ per share. Such investors may experience additional dilution upon the exercise of outstanding stock options and warrants having exercise prices less than the per share offering price to the public in this offering. See “Dilution” on page S-35.

Our share price may decline due to the large number of shares of our common stock eligible for future sale in the public market including shares underlying warrants and options.

Almost all of our outstanding shares of common stock are, or could upon exercise of options or warrants would become, eligible for sale in the public market as described below. Sales of a substantial number of shares of our common stock in the public market, or the possibility of these sales, may adversely affect our stock price.

As of September 30, 2013, 18,090,536 shares of our common stock were issued and outstanding. As of that date we had 23,000 warrants outstanding and exercisable with a weighted average exercise price of \$3.68 and 1,107,159 options outstanding and exercisable with a weighted average exercise price of \$4.78 per share, which if exercised would result in the issuance of additional shares of our common stock. In addition to the options noted above, at September 30, 2013, 396,723 options are outstanding, but have not yet vested and are not yet exercisable.

S-12

Substantially all our currently outstanding shares and shares issuable under our outstanding options and warrants are or would be freely tradable, as would the shares to be issued in this Offering.

Our stock price is highly volatile.

The market price of our common stock has fluctuated substantially in the past and is likely to continue to be highly volatile and subject to wide fluctuations. During 2013, our common stock has closed at prices as low as \$5.82 and as high as \$9.81 per share. Fluctuations in our stock price may continue to occur in response to various factors, many of which we cannot control, including:

general economic and political conditions and specific conditions in the markets we address, including the continued volatility in the energy industry and the general economy;

- quarter-to-quarter variations in our operating results;
- announcements of changes in our senior management;
- the gain or loss of one or more significant customers or suppliers;
- announcements of technological innovations or new products by our competitors, customers or us;
- the gain or loss of market share in any of our markets;
- changes in accounting rules;
- changes in investor perceptions; or
- changes in expectations relating to our products, plans and strategic position or those of our competitors or customers.

In addition, the market prices of securities of energy related companies have been and remain volatile. This volatility has significantly affected the market prices of securities of many companies for reasons frequently unrelated to the operating performance of the specific companies.

We may have to offer additional securities for sale in the near future depending upon the amount of proceeds received in this offering.

We anticipate that we may need to raise additional amounts during 2014 to finance the plans for our USSI business as described herein. In such event, investors will incur additional dilution in the value of their shares. Even if we sell all the shares offered hereby and the underwriters exercise their over-allotment, the proceeds may still not be sufficient to allow us to execute our plans, including, due to delays in anticipated commercialization of our USSI products, cash needs at our other subsidiaries or the occurrence of one or more other events that require us to make significant expenditures.

GENERAL FACTORS

We expect that our earnings and revenues for the third quarter of 2013 and for the years ending December 31, 2013 and 2014 will be below the consensus expectations of the analysts that report on our stock.

Each of our companies experienced delays in anticipated orders, lower than planned sales volume or shipment of orders and, in the case of USSI, technical challenges that collectively and materially have negatively impacted and are expected to continue to negatively impact our financial performance for the near term. We anticipate that revenue and earnings performance for the third quarter of 2013 ended September 30, 2013 (not yet reported) and for the years ending December 31, 2013 and 2014 will be materially below analyst consensus expectations. We anticipate that revenues for the third quarter of 2013 will, however, be approximately the same as those reported for the second quarter of 2013 ended June 30, 2013. Because the impairment and restructuring charges related to OmniMetrix cannot yet be determined, we currently do not have visibility into the earnings results for the third quarter. We also anticipate a material decrease in cash related to our general business activities throughout the quarter ended September 30, 2013 that is expected to be consistent with cash burn in the quarter ended June 30, 2013.

We have a history of operating losses and have used increasing amounts of cash for operations and to fund our acquisitions and investments; we may need additional working capital beyond the proceeds of this Offering to fund our operations in 2014 and beyond.

We have a history of operating losses, and have used significant amounts of cash to fund our operating activities over the years. In 2010, 2011 and 2012, we had operating losses of \$6.5 million, \$8.0 million and \$20.7 million, respectively. Cash used in operating activities of continuing operations in 2010, 2011 and 2012 was \$6.3 million, \$7.8 million and \$22.2 million, respectively. Our operating losses and cash used in operations were \$12.7 million and \$11.0 million, respectively, as of June 30, 2013 and we believe that these amounts for calendar year 2013 may exceed 2012 amounts.

We do not presently anticipate pursuing new acquisitions and investment opportunities, but we do expect to continue to support the financing needs of USSI and possibly our other subsidiaries. Without the proceeds of this offering, we do not expect to have sufficient cash to fund our corporate headquarters activities and support all the working capital needs of USSI and other subsidiaries for the next year. Depending on the proceeds of this offering, we may have to raise capital either through the issuance of debt, equity or the sale of one or more of our investments in order to provide sufficient working capital for 2014 and beyond. We do not know if such funds will be available if needed on terms that we consider acceptable. We may have to limit or adjust our operating strategy in order to continue to pursue our corporate goals.

Goodwill and other intangible assets recorded in connection with our acquisitions is subject to impairment evaluations and as a result, we could be required to write off some or all of these intangibles, which may adversely affect our financial condition and results of operations.

In accordance with applicable accounting principles, goodwill is not amortized but is reviewed annually or more frequently for impairment and other intangibles are also reviewed if certain conditions exist. While we have not recorded an impairment of goodwill during the years ended December 31, 2012 or 2011, during the year ended December 31, 2010, we recorded a \$5.0 million impairment of goodwill associated with our former Coreworx subsidiary following our decision to stop funding it and an impairment of \$1.2 million associated with our GridSense segment. We also recorded an impairment charge of \$1.1 million at OmniMetrix in the second quarter of 2013 due to the loss of a customer relationship. Any additional impairment of the value of recorded goodwill or other intangibles will result in an additional charge against earnings which could materially adversely affect our reported results of operations and financial position in future periods.

Our Audit Committee has determined that we will incur an impairment charge as a result of write-downs of goodwill and/or intangibles and will record a restructuring charge with respect to OmniMetrix.

On October 3, 2013, our Audit Committee determined that the Company will record an impairment charge as a result of write-downs of goodwill and/or other intangibles, and will record a restructuring charge, with respect to OmniMetrix. The write-downs would be reflective of the Company's current valuation of the OmniMetrix assets and business. OmniMetrix is also currently engaged in restructuring its operations to better align expenses with revenues as now projected by its new management. This is expected to result in significantly reduced utilization of the new leased facility in Buford, Georgia. This is expected to also result in a write-down of a substantial portion of the carrying value of the leasehold improvements associated with the facility and other restructuring charges. We are currently unable to determine the amount of the impairment and restructuring charges at this time. The total carrying value at June 30, 2013 of the OmniMetrix goodwill was approximately \$1.9 million, other intangibles was approximately \$3.8 million and the gross amount of the leasehold improvements was approximately \$0.7 million. It is expected that these values would be written down in amounts to be determined, but that they may not necessarily be written off in their entirety. The impairment charges from write-down of the goodwill and/or other intangibles and the leasehold improvements would be non-cash expenses, while any other restructuring charges may be cash expenses. The impairment and restructuring charges would likely have a material impact on the Company's results of operations for the quarter ended September 30, 2013.

S-14

We do not expect to pay dividends on shares of our common stock for the foreseeable future. Investor may never obtain a return on their investment.

In October 2011, our Board of Directors adopted a dividend policy pursuant to which Acorn expected to pay quarterly dividends on our common stock. We suspended this policy after our March 2013 dividend payment and do not presently intend to pay dividends to our stockholders in the foreseeable future. We intend to reinvest earnings, if any, in the development and expansion of our business. Accordingly, you will need to rely on sales of your common stock after price appreciation, which may never occur, in order to realize a return on your investment.

We depend on key management for the success of our businesses.

Our success is largely dependent on the skills, experience and efforts of our senior management team, including John Moore, Richard Rimer, Michael Barth, Joseph Musanti, Jim Anderson, and Benny Sela. The loss of the services of any of these key managers could materially harm our business, financial condition, future results and cash flow. We do not maintain “key person” life insurance policies on any of these employees other than for our CEO, John A. Moore. We may also not be able to locate or employ on acceptable terms qualified replacements for our senior management if their services were no longer available.

We believe the ultimate success of USSI will depend on our ability to market successfully to the oil and gas sector, and thus we intend to recruit personnel with ties to and experience in that industry. There can be no assurance that we will be able to recruit such personnel or that the terms on which we may be able to do so will be favorable to us.

Loss of the services of a few key employees could harm our operations.

We depend on key technical employees and sales personnel. The loss of certain personnel could diminish our ability to develop and maintain relationships with customers and potential customers. The loss of certain technical personnel could harm our ability to meet development and implementation schedules. The loss of key sales personnel could have a negative effect on sales to certain current customers. Although most of our significant employees are bound by confidentiality and non-competition agreements, the enforceability of such agreements cannot be assured. Our future success also depends on our continuing ability to identify, hire, train and retain other highly qualified technical and managerial personnel. If we fail to attract or retain highly qualified technical and managerial personnel in the future, our business could be disrupted.

Our Vice President of External Relations assists in certain legislative and other governmental relations matters - such activities and the activities of other personnel may be deemed to be lobbying efforts.

To the extent that our Vice President of External Relations engages in activities that constitute “lobbying” under federal, state, or local laws, we have to register him and possibly ourselves and one or more of our subsidiaries under such applicable laws. In addition, some states have so-called procurement lobbying rules that require sales personnel who interact with governmental officials in certain sales activities to register as lobbyists as well. Lobbying laws typically require periodic financial and other reports to be timely made and prohibit some types of contributions, gifts and other expenditures by lobbyists and their affiliates. We intend to comply with such laws. Any failure to register or to comply with the applicable regulations could subject us, our employees and officers and directors to civil or criminal penalties.

Our awards of stock options to employees may not have their intended effect.

A portion of our total compensation program for our executive officers and key personnel has historically included the award of options to buy our common stock or the common stock of our subsidiaries. If the price of our common stock performs poorly, such performance may adversely affect our ability to retain or attract critical personnel. In addition, any changes made to our stock option policies, or to any other of our compensation practices, which are made necessary by governmental regulations or competitive pressures could affect our ability to retain and motivate existing personnel and recruit new personnel.

Compliance with changing regulation of corporate governance, public disclosure and financial accounting standards may result in additional expenses and affect our reported results of operations.

Keeping informed of, and in compliance with, changing laws, regulations and standards relating to corporate governance, public disclosure and accounting standards, including the Sarbanes-Oxley Act, Dodd-Frank Act, as well as new and proposed SEC regulations and accounting standards, has required an increased amount of management attention and external resources. Compliance with such requirements may result in increased general and administrative expenses and an increased allocation of management time and attention to compliance activities.

New regulations related to conflict minerals may force us to incur additional expenses.

The SEC released final rules in August 2012 regarding mandatory disclosure by public companies of sourcing information related to their use of “conflict minerals” (tantalum, tin, tungsten and gold) originating in the Democratic Republic of Congo and adjoining countries. We will be required to conduct specified due diligence activities for the 2013 calendar year, and provide our first report in May 2014. A challenge to the rules filed by the National Association of Manufacturers and the U.S. Chamber of Commerce in the U.S. Court of Appeals for the District of Columbia was unsuccessful and the rules remain in force. We thus have determined that conflict minerals are necessary for the functionality of many of our products, and are undertaking prescribed steps to determine their origin. We anticipate that fulfilling our compliance obligations with the rules will continue to be both time consuming and potentially costly. Although the exact amount cannot be determined at this time, commentators have suggested compliance could cost companies like ours as much as several hundreds of thousands of dollars per year. Although we anticipate that our costs will be substantially lower, we may also incur additional expenses related to any changes to our products we may decide are advisable based upon our due diligence findings, as well as increased supply costs as alternative supply sources may not be competitively priced.

We may not be able to successfully integrate companies which we may invest in or acquire in the future, which could materially and adversely affect our business, financial condition, future results and cash flow.

Part of our business model includes the acquisition of new companies either as new platform companies or complimentary companies for our subsidiaries. Although we do not presently foresee making such acquisitions in the near term, if we did so, any failure to effectively integrate any future acquisition's management into our controls, systems and procedures could materially adversely affect our business, results of operations and financial condition.

Our strategy is to continue to integrate any newly acquired companies and grow the businesses of all of our companies. Integrating acquisitions is often costly, and we may not be able to successfully integrate acquired companies with existing operations without substantial costs, delays or other adverse operational or financial consequences. Integrating acquired companies involves a number of risks that could materially and adversely affect

our business, including:

- failure of the acquired companies to achieve the results we expect;
- inability to retain key personnel of the acquired companies;
- dilution of existing stockholders;
- potential disruption of our ongoing business activities and distraction of our management;
- difficulties in retaining business relationships with suppliers and customers of the acquired companies;

S-16

• difficulties in coordinating and integrating overall business strategies, sales and marketing, and research and development efforts; and
• difficulties in establishing and maintaining uniform standards, controls, procedures and policies, including accounting controls and procedures.

In order to grow, one or more of our companies may decide to pursue growth through acquisitions, although we do not currently plan any significant acquisitions. Any significant acquisition by one or more of our operating companies could require substantial use of our capital and may require significant debt or equity financing. We anticipate the need to closely manage our cash for the foreseeable future and cannot provide any assurance as to the availability or terms of any such financing or its effect on our liquidity and capital resources.

We incur substantial costs as a result of being a public company.

As a public company, we incur significant legal, accounting, and other expenses in connection with our reporting requirements. The Sarbanes-Oxley Act of 2002, Dodd-Frank Act and the rules subsequently implemented by the Securities and Exchange Commission ("SEC") and NASDAQ, have required changes in corporate governance practices of public companies. These rules and regulations have already increased our legal and financial compliance costs and the amount of time and effort we devote to compliance activities. We expect that as a result of continued compliance with these rules and regulations, we will continue to incur significant legal and financial compliance costs. We continue to regularly monitor and evaluate developments with respect to these new rules with our legal counsel, but we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. The conflict minerals reporting requirement discussed above is a direct consequence of our public status.

We may in the future become involved in litigation that may materially adversely affect us.

From time to time in the ordinary course of our business, we may become involved in various legal proceedings, including commercial, product liability, employment, class action and other litigation and claims, as well as governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Because litigation is inherently unpredictable, the results of any such actions may have a material adverse effect on our business, operations or financial condition.

While we have not reported any material weaknesses in internal controls over financial reporting in the past, we cannot assure you that material weaknesses will not be identified in the future. If our internal control over financial reporting or disclosure controls and procedures are not effective, there may be errors in our financial statements that could require a restatement or our filings may not be timely and investors may lose confidence in our reported

financial information.

Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate the effectiveness of our internal control over financial reporting as of the end of each year, and to include a management report assessing the effectiveness of our internal control over financial reporting in each Annual Report on Form 10-K.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. Over time, controls may become inadequate because changes in conditions or deterioration in the degree of compliance with policies or procedures may occur. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

S-17

As a result, we cannot assure you that significant deficiencies or material weaknesses in our internal control over financial reporting will not be identified in the future. Any failure to maintain or implement required new or improved controls, or any difficulties we encounter in their implementation, could result in significant deficiencies or material weaknesses, cause us to fail to timely meet our periodic reporting obligations, or result in material misstatements in our financial statements. Any such failure could also adversely affect the results of periodic management evaluations regarding disclosure controls and the effectiveness of our internal control over financial reporting required under Section 404 of the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder. The existence of a material weakness could result in errors in our financial statements that could result in a restatement of financial statements, cause us to fail to timely meet our reporting obligations and cause investors to lose confidence in our reported financial information.

If we are unable to protect our intellectual property, or our intellectual property protection efforts are unsuccessful, others may duplicate our technology.

Our operating companies rely on a combination of patents, trademarks, copyrights, trade secret laws and restrictions on disclosure to protect our intellectual property rights. Our ability to compete effectively will depend, in part, on our ability to protect our proprietary technology, systems designs and manufacturing processes. The ability of others to use our intellectual property could allow them to duplicate the benefits of our products and reduce our competitive advantage. We do not know whether any of our pending patent applications will be issued or, in the case of patents issued, that the claims allowed are or will be sufficiently broad to protect our technology or processes. Further, a patent issued covering one use of our technology may not be broad enough to cover uses of that technology in other business areas. Even if all our patent applications are issued and are sufficiently broad, they may be challenged or invalidated or our competitors may independently develop or patent technologies or processes that are equivalent or superior to ours. We could incur substantial costs in prosecuting patent and other intellectual property infringement suits and defending the validity of our patents and other intellectual property. While we have attempted to safeguard and maintain our property rights, we do not know whether we have been or will be completely successful in doing so. These actions could place our patents, trademarks and other intellectual property rights at risk and could result in the loss of patent, trademark or other intellectual property rights protection for the products, systems and services on which our business strategy partly depends. Furthermore, it is not practical from a cost/benefit perspective to file for patent or trademark protection in every jurisdiction where we now or in the future may conduct business. In those territories where we do not have the benefit of patent or trademark protections, our competitors may be able to prevent us from selling our products or otherwise limit our ability to advertise under our established product names and we may face risks associated with infringement litigation as discussed below.

We rely, to a significant degree, on contractual provisions to protect our trade secrets and proprietary knowledge. These trade secrets either cannot be protected by patent protection or we have determined that seeking a patent is not in our interest. These agreements may be breached, and we may not have adequate remedies for any breach. Our trade secrets may also be known without breach of such agreements or may be independently developed by competitors.

Third parties may claim that we are infringing their intellectual property, and we could suffer significant litigation or licensing expenses or be prevented from selling products and services if these claims are successful. We also may incur significant expenses in affirmatively protecting our intellectual property rights.

In recent years, there has been significant litigation involving patents and other intellectual property rights in many technology-related industries and we believe that the industries in which certain of our subsidiaries operate have a significant amount of patent activity. Third parties may claim that the technology or intellectual property that we incorporate into or use to develop, manufacture or provide our current and future products, systems or services infringe, induce or contribute to the infringement of their intellectual property rights, and we may be found to infringe, induce or contribute to the infringement of those intellectual property rights and may be required to obtain a license to use those rights. We may also be required to engage in costly efforts to design our products, systems and services around the intellectual property rights of others or incur additional marketing costs if we are prevented from using existing product names. The intellectual property rights of others may cover some of our technology, products, systems and services. In addition, the scope and validity of any particular third party patent may be subject to significant uncertainty.

Litigation regarding patents or other intellectual property rights is costly and time consuming, and could divert the attention of our management and key personnel from our business operations. The complexity of the technology involved and the uncertainty of intellectual property litigation increase these risks. Claims of intellectual property infringement might also require us to enter into costly royalty or license agreements or to indemnify our customers. However, we may not be able to obtain royalty or license agreements on terms acceptable to us or at all. Any inability on our part to obtain needed licenses could delay or prevent the development, manufacture and sale of our products, systems or services. We may also be subject to significant damages or injunctions against development, manufacture and sale of our products, systems or services. We also may be required to incur significant time and expense in pursuing claims against companies we believe are infringing or have misappropriated our intellectual property rights.

It can be difficult or expensive to obtain the insurance we need for our business operations.

As part of our business operations, we maintain insurance both as a corporate risk management strategy and to satisfy the requirements of many of our contracts. Insurance products are impacted by market fluctuations and can become expensive and sometimes very difficult to obtain. There can be no assurance that we can secure all necessary or appropriate insurance at an affordable price for the required limits. Our failure to obtain such insurance could lead to uninsured losses that could have a material adverse effect on our results of operations or financial condition, or cause us to be out of compliance with our contractual obligations. Two of our subsidiaries, USSI and GridSense, do business in California, which is known to experience earthquake activity. Insurance coverage for earthquake-related damage is expensive and neither company presently maintains earthquake policies.

We may in the future be involved in product liability and product warranty claims relating to the products we manufacture and distribute that, if adversely determined, could adversely affect our financial condition, results of operations, and cash flows. Product liability claims can be expensive to defend and can divert the attention of management and other personnel for significant periods, regardless of the ultimate outcome. Claims of this nature could also have a negative impact on customer confidence in our products and our company. While insurance can mitigate some of this risk, due to our current size and limited operating history, we have been unable to obtain product liability insurance with significant coverage limits. Our customers may not accept the terms we have been able to procure and seek to terminate our existing contracts or cease to do business with us.

S-19

Concentrations of credit risk.

Financial instruments, which potentially subject us to concentrations of credit risk, consist principally of cash and cash equivalents, restricted deposits, trade receivables and unbilled revenue. As of June 30, 2013, the counterparty to a significant portion of our cash and cash equivalents (\$5.4 million) is in money markets of two major financial institutions while an additional \$1.1 million is in a checking account at one of those major financial institutions. We do not believe there is significant risk of non-performance by these counterparties. The counterparty to our restricted deposits (\$0.6 million) and approximately \$6.5 million of our cash and equivalents are two major Israeli banks. We do not believe there is significant risk of non-performance by these counterparties. Approximately 33% (\$1.1 million) of the trade accounts receivable at June 30, 2013 was due from two customers that pay over usual credit periods. Credit risk with respect to the balance of trade receivables is generally diversified due to the number of entities comprising our customer base. Approximately 67% of the balance in unbilled revenue at June 30, 2013 was due from three customers that have historically paid their trade receivables over usual credit periods. Credit risk with respect to the balance of unbilled revenue is generally diversified due to the number of entities comprising our customer base.

Results from our past successful sales of subsidiary companies may not be repeated.

In the past, we have sold certain former subsidiaries (Comverge and CoaLogix) at a profit, but there can be no assurance that we will be able to repeat these successes with one or more of our current subsidiaries. We invest in companies before they have a meaningful history of revenues and whether we can operate these entities successfully or realize any profit on our investments in them cannot be determined.

RISKS RELATED TO USSI

USSI has a limited operating history.

USSI was formed in November 2007 and has a limited operating history. Most of its products are at the development stage and substantial time, effort and financial resources will be required to complete development of its products, fund the cost of customer evaluations and ramp up its production and sales infrastructure. USSI's operations are subject to all of the risks inherent in the establishment of a new business enterprise, especially one that is dependent on developing new products for the oil and gas industries. The likelihood of USSI's success should be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with establishing a new business such as uncertainty in product development, uncertainty in market acceptance of its products, competition, and changes in business strategy. USSI has no assurance that it will be successful in its business activities.

USSI has incurred net losses and may never achieve sustained profitability; it must immediately adopt cost savings measures to survive.

Since its inception, USSI has had annual operating losses. USSI expects to continue to have operating losses for the years ending December 31, 2013 and 2014 possibly beyond (depending on revenue levels) as a result of increased operating expenses required to resolve key technical issues primarily related to peripheral technology needed to field a full system such as high temperature/high pressure seals, downhole fiber optic connectors and downhole clamps. The time and effort required to qualify these peripheral components delayed our ability to ship trial products to customers and ultimately to field a commercial product, both of which limited our ability to generate revenue in 2013. USSI can provide no assurance that it will ultimately generate sufficient revenues to allow it to become profitable, to sustain profitability or to have positive cash flows. We previously ramped up manufacturing capabilities and staff in anticipation of order volumes we expected would occur during the second half of 2013. Due to the issues described above, those expectations have not yet been realized. . We are proactively monitoring operating expenses to ensure that they are in line with our current and expected near term activities and will make adjustments as necessary. We may also make strategic hires of additional personnel with experience in the oil and gas industry to assist with our penetration into this complex market.

S-20

USSI will need additional financing to grow its business and finance its operations.

In the period since Acorn's initial investment in November 2009 through December 2012, we invested \$14.75 million directly in USSI. In 2013 through September 30, we invested another \$6.0 million in USSI and have budgeted an additional \$1.5 for the remainder of 2013, which amount may increase. While USSI has an agreement with a bank for a \$1 million line-of-credit, we have no assurance whether and to what extent USSI will have access to the entire \$1.0 million bank facility as its availability is subject to certain financial and other covenants and may not be renewed upon expiration next month. We have no assurance that USSI's future capital needs will not exceed the amount of the credit line or the amounts Acorn' is able to provide to USSI, or that USSI will generate sufficient cash flow in the future to fund its operations in the absence of additional funding sources. Furthermore, we may need to raise additional funds to fund USSI if revenues fail to meet or if costs exceed projections or to fund a rapid expansion to meet product demand, respond to competitive pressures or acquire complementary products, businesses or technologies. If additional funds are raised through issuance of Acorn equity or debt convertible into Acorn equity this will dilute acorn stockholders. If the funds are raised through the direct issuance of USSI equity or convertible debt securities to third parties, Acorn's percentage ownership of USSI would be reduced.

In addition, should additional funds be needed, there can be no assurance that additional financing will be available on acceptable terms. If funds are not available, or are not available on acceptable terms, USSI may not be able to fund its operations, make the investments needed to grow its business respond to competitive pressures or take advantage of unanticipated acquisition opportunities. Accordingly, this could materially and adversely affect USSI's business, results of operations and financial condition.

USSI is a small company with limited resources compared to some of its current and potential competitors, which may hinder its ability to compete effectively.

Some of USSI's current and potential competitors have longer operating histories, significantly greater resources and broader name recognition than does USSI. As a result, these competitors may have greater credibility with USSI's existing and potential customers. They also may be able to adopt more aggressive pricing policies and devote greater resources to the development, promotion and sale of their products than can USSI to its products, which would allow them to respond more quickly than USSI to new or emerging technologies or changes in customer requirements.

USSI's products require additional development and design; recent evaluation trials have shown us that the products will require additional customer evaluation and approval before we can expect commercial orders.

USSI's products are in the development stage. In addition, USSI's products may require additional engineering and upgrades in conjunction with market developments as well as specific customer needs. In connection with recent

customer trials, USSI has experienced various design challenges that have negatively impacted product performance. Although feedback from several customers indicates that the data read from our sensors meets or exceeds our quality claims, several customers have requested improvements regarding the blocking of water from entering the fiber optic cable (primarily a solution to prevent a crack in the fiber optic cable from allowing water to penetrate the entire array), noise cancellation (a process to eliminate the impact of ambient noise on frac detection) and improved clamping mechanisms to improve vector fidelity (the ability to identify the location of a fracture point with precision). We believe that we have provided or are close to achieving solutions responsive to each of these concerns, however, the need to resolve these technical issues has delayed product shipment beyond the time frame we had previously anticipated. In the interim, customers continue to rely on existing competing technology, primarily conventional retrievable downhole sensors. Where these systems are not capable of sustained performance (i.e., in high temperature, long-term deployments), well owners are simply foregoing monitoring. There can be no assurance that USSI will continue to be successful in developing and refining its products and future technological difficulties could adversely affect its business, results of operations and financial condition.

S-21

The announced “cook test” will be the first time our product has been deployed in a high temperature well and we may not have the same survivability or performance as experienced in our lab testing.

While we have conducted successful laboratory experiments exposing our sensors to high temperatures over extended periods of time with no loss of performance, we cannot predict whether real well conditions will produce a different result and any loss of sustainability or performance could negatively impact the customer’s and other interested parties’ acceptance of our products.

USSI has not yet proved its ability to manufacture its products in commercial quantities.

In order to be successful, USSI's products must be manufactured in commercial quantities at an acceptable cost and must meet customer quality specifications. We believe that USSI's space and manufacturing capabilities at its current facilities in Chatsworth, California are sufficient to handle a large increase in sales for the future. USSI implemented an internal ISO 9001 quality management system that has been certified by an independent, internationally recognized audit agency. Without such certification, USSI would not be able to become an approved production supplier to the major oil companies and oilfield service companies. USSI has increased its production staff and has developed proprietary automated manufacturing/assembly stations for its products. USSI has also implemented inventory control and tracking systems necessary to support larger scale production, but such systems have either not yet been fully tested or are not yet fully operational. In addition to adding internal staffing and resources, USSI may consider potential opportunities to acquire third party manufacturing capacity through acquisition or contract manufacturing arrangements, and whether or when we will find such arrangements on terms acceptable to USSI cannot be determined. Whether such systems and the personnel with the skills to effectively operate them can be put in place to meet customer orders on a timely and high quality basis can also not be determined. Failure to do so could result in delays or failures in meeting customer demand, resulting in a loss of customer confidence and orders. Such difficulties could materially and adversely affect the business, results of operations and financial condition of USSI.

USSI is dependent on suppliers who provide it with key components for some of its products.

USSI's products incorporate “state of the art” technologies. As such, in many cases there are a limited number of suppliers of key components. In particular, USSI currently relies on a single source for the supply of one of the basic circuit boards used in its high-end interrogators for some of its technologically advanced product offerings. USSI has licensed alternative interrogator technology that is much more advanced from Northrop Grumman that was initially developed for large-scale U.S. Navy fiber optic sonar applications and intends to field its own high performance interrogator prior to the end of 2013. Any development delays could materially and adversely affect USSI's business, results of operations and financial condition. Where possible, USSI attempts to develop secondary back-up suppliers for key components. USSI also relies upon a single supplier for the fiber optic cables used in its systems. Due to the increasing demand for fiber optic cables in the oil & gas industry, USSI is experiencing longer lead times in obtaining these cables for its products, which could delay future shipments. Therefore, USSI intends to develop and qualify a

second source for these cables. In the interim, USSI is investigating building up inventory to minimize the effects of these longer lead times.

S-22

USSI's targeted customers may be reluctant to try its alternative solution despite its increased reliability and lower cost; we also face competition from suppliers of other solutions who may have superior resources.

Potential customers may elect to continue to use the existing expensive and less reliable technologies given their familiarity of the existing products in the market. Budget constraints at our customers may also limit the level of adoption even by customers who recognize the value of our solutions. The competition in USSI's markets may have superior resources and marketing ability which could lead to potential customers selecting existing products or other new products over USSI's solutions. While USSI continues to develop its products and invest in marketing efforts accordingly, there is no assurance that USSI's products will be preferred in the market place relative to competitors with superior overall resources. If the market place does not adopt USSI's products as anticipated, USSI's business, results of operations and financial condition could be materially and adversely affected.

Failure to accurately forecast costs of future fixed-priced contracts could reduce USSI's margins.

USSI's current proof-of-concept projects which generally produce negative gross margins due to non-recurring engineering design costs ("NRE") associated with the proof-of-concept are expected to lead to follow-on projects on a fixed price basis. USSI has been following this strategy to ensure it retains ownership of all of the key intellectual property needed to field such systems. When working on a fixed-price basis, USSI expects to undertake to deliver solutions to a customer's specifications or requirements for a particular project. The profits from these projects are expected to primarily be determined by USSI's success in correctly estimating and thereafter controlling project costs. Costs may in fact vary substantially as a result of various factors, including underestimating costs, difficulties with new technologies and economic and other changes that may occur during the term of the contract. If, for any reason, USSI's costs are substantially higher than expected, USSI may incur losses on such fixed-price contracts.

USSI may lose sales if it is unable to obtain government authorization to export its products.

The export of some of USSI's products may be subject to export controls imposed by the U.S. government and administered by the U.S. Departments of State and Commerce. In certain instances, these regulations may require pre-shipment authorization from the administering department. For products subject to the Export Administration Regulations ("EAR") administered by the Department of Commerce's Bureau of Industry and Security, the requirement for a license is dependent on the type and end use of the product, the final destination and the identity of the end user. All USSI products that are exported are subject to EAR; however, most of USSI's equipment is considered EAR99. EAR99 items generally consist of low-technology consumer goods and do not require a license in many situations. However, if USSI were to attempt to export an EAR99 item to an embargoed country, to an end-user of concern (as defined by the U.S. Department of Commerce) or in support of a prohibited end-use (as defined by the U.S. Department of Commerce), USSI would be required to obtain a license.

Exports of certain USSI products may also be subject to the International Traffic in Arms Regulations (“ITAR”) regulations administered by the Department of State’s Directorate of Defense Trade Controls and may require a license.

Certain possible exports of products and technical data by USSI to DSIT in connection with the PAUSS project and related projects will require either an EAR or ITAR license and it cannot be determined at this time if licenses will issue at all, on a timely basis or on acceptable terms.

Obtaining export licenses generally can be difficult and time-consuming. Failure to obtain export licenses could significantly reduce our revenue and materially adversely affect USSI’s business, financial condition and results of operations. Compliance with U.S. government regulations may also subject USSI to additional fees and costs. The absence of comparable restrictions on competitors in other countries may adversely affect USSI’s competitive position.

S-23

Limited Protection of Proprietary Technology; Risks of Infringement.

USSI's success is heavily dependent upon its internally developed technology. USSI has filed patents covering the specific use and novel inventions developed internally. To further protect its proprietary rights, USSI relies on a combination of patent, trade secret, nondisclosure and other contractual restrictions. As part of its confidentiality procedures, USSI enters into nondisclosure agreements with its employees, as well as select consultants and strategic partners and USSI limits access to, and distribution of, its designs and proprietary information. Despite these efforts, USSI may be unable to effectively protect its proprietary rights. In addition, the expense associated with the enforcement of USSI's proprietary rights may be substantial.

RISKS RELATED TO DSIT SOLUTIONS

Failure to accurately forecast costs of fixed-priced contracts could reduce DSIT's margins.

When working on a fixed-price basis, DSIT undertakes to deliver software or integrated hardware/software solutions to a customer's specifications or requirements for a particular project. The profits from these projects are primarily determined by DSIT's success in correctly estimating and thereafter controlling project costs. Costs may in fact vary substantially as a result of various factors, including underestimating costs, difficulties with new technologies and economic and other changes that may occur during the term of the contract. If, for any reason, DSIT's costs are substantially higher than expected, it may incur losses on fixed-price contracts.

Hostilities in the Middle East region may slow down the Israeli high-tech market and may harm DSIT's operations.

DSIT's operations are conducted in Israel. Accordingly, political, economic and military conditions in Israel may directly affect DSIT. Any increase in hostilities in the Middle East involving Israel could weaken the Israeli hi-tech market, which may result in a deterioration of the results DSIT's operations. In addition, an increase in hostilities in Israel could cause serious disruption to DSIT's operations if acts associated with such hostilities result in any serious damage to its offices or those of its customers or harm to its personnel. Furthermore, the mandatory military commitments of some DSIT personnel may temporarily impact our ability to produce our products on a timely basis if such personnel are called into service in connection with hostilities or otherwise.

Exchange rate fluctuations could increase the cost of DSIT's operations.

A majority of DSIT's sales are based on contracts or orders which are in U.S dollars or are in New Israeli Shekels ("NIS") linked to the U.S. dollar. At the same time, most of DSIT's expenses are denominated in NIS (primarily labor costs) and are not linked to any foreign currency. The net effect of a devaluation of the U.S. dollar relative to the NIS is that DSIT's costs in dollar terms increases more than its revenues. DSIT enters into forward contracts to try to mitigate its exposures to exchange rate fluctuations; however, we can provide no assurance that such controls will be implemented successfully. In 2012 the NIS strengthened in relation to the U.S. dollar by 2.3%. In 2013 (through September 30), the NIS strengthened in relation to the U.S. dollar by 5.3%.

S-24

DSIT is substantially dependent on a small number of customers and the loss of one or more of these customers may cause revenues and cash flow to decline.

In 2012, approximately 70% of DSIT's revenues were concentrated in two customers. These customers are expected to continue to make up a significant portion of DSIT's revenues and cash flow for 2013. A significant reduction of future orders or delay in milestone payments from any of these customers could have a material adverse effect on the performance of DSIT.

DSIT is a project-based business which is dependent on large orders from customers who typically have long acquisition cycles.

DSIT is a project-based business which is dependent on large orders from customers who typically have long acquisition cycles. DSIT must constantly replace its pipeline of opportunities given what typically averages to at least an 18-month sales cycle.

DSIT is dependent on meeting milestones to provide cash flow for its operations.

DSIT's operations place a great reliance on it meeting project milestones in order to generate cash flow to finance its operations. Should DSIT encounter difficulties in meeting significant project milestones, resulting cash flow difficulties could have a material adverse effect on its operations.

DSIT must at times provide significant guarantees in order to secure projects. These guarantees are often collateralized by restricted deposits.

Some of the projects DSIT performs require significant performance and/or bank guarantees. At June 30, 2013, DSIT had \$2.6 million of performance and bank guarantees outstanding. In addition, as of June 30, 2013, DSIT had on deposit at two Israeli banks approximately \$0.8 million collateralizing some of these guarantees. These deposits are restricted and, accordingly, DSIT cannot use these funds for operations until the guarantees which are being collateralized are released. At times, this can create cash flow difficulties which could have a material adverse effect on its operations.

In addition, DSIT may not always be able to supply such guarantees or restricted deposits without financial assistance from Acorn. If Acorn needs to provide financial guarantees for DSIT, Acorn may not have sufficient funds available to it to meet its other corporate goals.

If DSIT is unable to keep pace with rapid technological change, its results of operations, financial condition and cash flows may suffer.

Some of DSIT's solutions are characterized by rapidly changing technologies and industry standards and technological obsolescence. DSIT's competitiveness and future success depends on its ability to keep pace with changing technologies and industry standards on a timely and cost-effective basis. A fundamental shift in technologies could have a material adverse effect on its competitive position. A failure to react to changes in existing technologies could materially delay DSIT's development of new products, which could result in technological obsolescence, decreased revenues, and/or a loss of market share to competitors. To the extent that DSIT fails to keep pace with technological change, its revenues and financial condition could be materially adversely affected.

DSIT is dependent on a number of suppliers who provide it with components for some of its products.

A number of DSIT's suppliers provide it with major components for some of its products for the Energy & Security Sonar Solutions segment. Some of these components are long-lead items. If for some reason, the suppliers cannot provide DSIT with the component when it is needed and DSIT cannot easily find substitute suppliers on similar terms, DSIT may have increased costs and/or delays in delivering a product to a customer and incur penalties and lose customer confidence. In addition, project delays can also slow down revenue recognition and our financial condition could be materially adversely affected. While DSIT is constantly attempting to develop secondary suppliers for these components, it can provide no assurance that it will be successful in doing so on acceptable terms.

DSIT is a relatively small company with limited resources compared to some of its current and potential competitors, which may hinder its ability to compete effectively.

Some of DSIT's current and potential competitors have longer operating histories, significantly greater resources and broader name recognition than it does. As a result, these competitors may have greater credibility with DSIT's existing and potential customers. They also may be able to adopt more aggressive pricing policies and devote greater resources to the development, promotion and sale of their products which would allow them to respond more quickly to new or emerging technologies or changes in customer requirements. Effective July 1, 2013, the Company entered into a new Stock Purchase Agreement with DSIT pursuant to which the Company converted a prior loan of approximately \$800,000 into additional ordinary (common) shares of DSIT. At the closing of the Stock Purchase Agreement, the Company also converted \$2,800,000 in advances and loans into DSIT's participating preferred stock and purchased an additional \$800,000 of participating preferred stock. In September 2013, the Company informed DSIT that it would suspend payment of funds it committed to invest in DSIT over the remainder of 2013 and into 2014, such that DSIT will be dependent solely on its own cash sources to finance its activities. The Stock Purchase Agreement will need to be amended to reflect this decision. The Company is unable at this time to predict the terms of the amendment.

DSIT has committed resources to enter the fiber optic security arena.

DSIT is currently investing significant amounts of capital in creating the infrastructure to support its entrance into the fiber optic security market. DSIT planned to do this in a joint development project with USSI. Because USSI has been focused on the opportunities in the oil and gas market, work on the joint DSIT-USSI project (known as PAUSS) has slowed. DSIT has determined to pursue this market on its own, but we have no assurance that it will successfully be able to develop or ultimately integrate these products into its portfolio and be able to commercialize the applications.

DSIT received a BIRD Foundation grant designated to cover 50% of the development costs of the project PAUSS project over a period of two years. Payment of the grant is dependent on continued progress being made in accordance with a contractually agreed upon time-line. Even if activity on development of PAUSS resumes its original pace, we anticipate that we may lose some or all of the remaining funds due to the delays.

RISKS RELATED TO GRIDSENSE

GridSense has incurred net losses and may never achieve sustained profitability.

GridSense incurred net losses for the years ended December 31, 2010, 2011 and 2012. Through June 30, 2013, GridSense has had a net loss of \$2.7 million. We believe that GridSense will reduce its losses in 2013 and it has a goal to be near break-even for 2014; however, we can provide no assurance that GridSense will generate sufficient revenues and cash flow to allow it to become cash neutral or eventually achieve or sustain profitability or to have positive cash flows. Although we do not plan to invest additional equity into GridSense, we have loaned GridSense \$750,000 in the third quarter of 2013 which we expect - but cannot guarantee - will be repaid to us by year-end from customer receipts following the delivery in the third and fourth quarters on an order in excess of \$1 million for 700 units of its Distribution IQTM and Line IQ[®] units. These loans are unsecured and subordinated to the bank providing a credit facility to GridSense.

S-26

GridSense may need additional financing to grow and finance its operations.

In 2012, we invested \$5.3 million in GridSense and GridSense signed a Loan and Security Agreement with a bank and received a \$1.0 million line-of-credit. However, as noted above, we expect that GridSense will continue to require working capital support during the balance of 2013 and possibly beyond to finance its operations as it works to grow its revenues (we have invested a total of \$1.98 million exclusive of loans in 2013 in GridSense). We have no assurance whether and to what extent GridSense will have access to the entire \$1.0 million facility as the availability is subject to a calculated borrowing base as well as certain financial and other covenants or if the bank will extend the facility past its expiration date early next month.

Additional support to GridSense may be in the form of an additional or expanded bank line, new investment by others, additional investment by Acorn, or a combination of the above. We have no assurance that such additional support will be available in sufficient amounts, in a timely manner and on acceptable terms. The availability and amount of any additional investment from Acorn may be limited by the investment and working capital needs of our corporate activities and other operating companies, in particular USSI to whom we intend to concentrate deployment of our financial resources for the foreseeable future.

GridSense's products and services may not gain market acceptance or competitors may introduce offerings that surpass those of GridSense.

The primary market for GridSense's products and services is rapidly evolving which means that the level of acceptance of products and services that have been released recently or that are planned for future release by the marketplace is not certain. If the markets for GridSense's products and services fail to develop, develop more slowly than expected or become subject to intense competition, its business will suffer. As a result, GridSense may be unable to:

(i) successfully market its current products and services, (ii) develop new products, services and enhancements to current products and services, (iii) complete customer installations on a timely basis or (iv) complete products and services currently under development. If GridSense's products and services are not accepted by its customers or by other businesses in the marketplace, GridSense's business and operating results will be materially affected. In addition, we can provide no assurance that GridSense will be successful in deriving significant revenue growth through its current strategy and marketing initiatives.

GridSense's products are subject to regulatory approvals.

Numerous regulations govern the manufacture and sale of GridSense's products in the United States and other countries where GridSense intends to market its products. Such regulation bears upon the approval of manufacturing techniques, testing procedures and approval for the manufacturing and sale of GridSense's products, including

advertising and labeling.

Any failure or delay in obtaining regulatory approvals would adversely affect our ability to market our products. Furthermore, product approvals may be withdrawn if problems occur following initial marketing or if compliance with regulatory standards is not maintained. The failure, delay or withdrawal of a previously given regulatory approval could materially adversely affect our revenues, cash flows and financial position.

Sales to utilities are generally characterized by long sales cycles.

GridSense's sales are largely dependent on the sales cycle of electric utilities which is typically long and requires much technical and application support. The purchasing cycle for a utility may involve an evaluation trial or pilot, analysis of data and results, review of competitor's offerings and smaller scale deployments, before a purchasing decision is made. For large orders, some utilities are required to solicit competitive bids from other vendors which can contribute significantly more time and result in lost sales opportunities. At best, the sales cycle can take several months and in certain circumstances it can be a multi-year process. Delays in securing purchase orders can materially adversely affect our revenues, cash flows and financial condition.

S-27

GridSense is attempting to broaden its revenue base by expanding into the North American market.

GridSense is currently recording a significant portion of its revenue from sales generated in Australia (approximately 34% for the six months ended June 30, 2013, more than 45% in both 2011 and 2012 and more than 60% for the 2010 calendar year). GridSense believes that growth and profitability will require additional expansion of sales in other markets, most notably the North American market. To the extent that GridSense is unable to expand sales into other markets in a timely and cost-effective manner, its business, operating results and financial condition could be materially adversely affected. In addition, even with the successful recruitment of additional personnel and international resellers, there can be no assurance that GridSense will be successful in maintaining or increasing international market demand for its products.

Exchange rate fluctuations could increase the cost of GridSense's Australian operations.

GridSense has operations in both the U.S. and Australia. Its Australian operations are subject to the volatility of the Australian dollar vis-à-vis the U.S. dollar (in 2013 (through September 30), the U.S. dollar strengthened by 10.4%, in 2012, the Australian dollar strengthened by 2.2%, in 2011 the Australian dollar was virtually unchanged vis-a-vis the U.S. dollar while in 2010, the Australian dollar strengthened by 13.3%). While risks are somewhat mitigated by the fact that GridSense's Australian operation's sales and expenses are primarily denominated in Australian dollars, currency fluctuations may impact the translation of certain balance sheet items, affect the economics of manufacturing and ultimately affect its financial performance. During 2012, GridSense transferred substantially all of its production lines to the U.S. in order to minimize costs in Australian dollars. GridSense does not employ specific strategies, such as the use of derivative instruments or hedging, to manage its foreign currency exchange rate exposures.

GridSense's market is subject to rapidly changing technologies.

GridSense markets its products in a field where electronics and software/firmware dominate. This fast changing area may generate unknown methods of detecting and monitoring disturbances that could render GridSense's technology inferior, resulting in GridSense's results of operations being materially adversely affected. GridSense does, however, closely monitor trends and changes in technologies and customer demand that could adversely impact its competitiveness and overall success.

GridSense is subject to vigorous competition with very large competitors that have substantially greater resources and operating histories.

Some of GridSense's competitors in the markets it serves are larger, better capitalized and have greater resources than GridSense. As GridSense grows and penetrates markets where larger companies have been established, it may experience a reduced rate of growth due to competitive forces. Competition from these competitors may have a material adverse effect on our operations, including a potential reduction in operating margins and a loss of potential business. Some competitors such as Power Delivery Product, Sentient and Cooper have products that directly compete with GridSense at comparable price points and features.

S-28

GridSense development costs and marketing costs to penetrate the market related to Grid InSite™ may be more than previously estimated.

GridSense is currently in the process of developing Grid InSite™. This product allows customers to monitor their networks on a system hosted by GridSense. While development costs expended to date are in line with expectations, we have no assurance that the final Grid InSite™ product will be completed within the expected time frame or budget currently anticipated. We further have no assurance that following the development of Grid InSite™, that GridSense will successfully be able to integrate it into its portfolio of products and be able to commercialize the applications. Furthermore, Grid InSite™ may require different organizational skillset and resources to penetrate the market. In contrast to GridSense's traditional way of selling hardware and equipment, Grid InSite™ may give the company an opportunity to sell services and generate recurring revenue streams over time. This model may require upfront investment by the company which will be recovered through subscription revenue collected overtime. As with any new product introduction there is always a risk in pace of adoption by customers. Grid InSite™ represents a new and unconventional way to sell to utilities. While the GridSense believes that there is a market for hosted software solutions it is unknown how utilities will accept this new method of procuring services.

GridSense has limited protection of its intellectual technology.

GridSense invests significant resources in product development and research in order to maintain its competitiveness in the marketplace. Keeping proprietary information safe from unauthorized use or disclosure is therefore an important objective. In order to protect its proprietary know-how and technology, GridSense uses a combination of patents, trade secrets, contracts, copyrights and trademarks. GridSense owns three U.S. patents and has one patent application pending in the U.S. In addition, GridSense owns one patent in Canada. Some of GridSense's know-how and technology may not be patentable. To protect its rights, GridSense requires employees, as well as select consultants, advisors and collaborators to enter into confidentiality agreements. While these agreements will provide some level of protection, they cannot provide absolute assurance that GridSense's trade secrets, know-how or other proprietary information are fully safeguarded. Whenever intellectual property is developed internally or acquired, GridSense will evaluate and determine the optimal mix of controls to protect itself.

RISKS RELATED TO OMNIMETRIX

OmniMetrix has incurred net losses since our acquisition and may never achieve sustained profitability.

OmniMetrix incurred a net loss of \$2.6 million in 2012 since our acquisition of it in February 2012 and used \$2.2 million of cash in its operations from such time through the end of 2012. OmniMetrix incurred a net loss of \$3.2 million through June 30, 2013 and used \$1.5 million of cash in its operations during the first six months of 2013. We

believe that OmniMetrix will continue to report losses in 2013 and have negative cash from operations for the remainder of 2013. We can provide no assurance that OmniMetrix will be able to generate sufficient revenues and cash flow to allow it to become profitable or to eventually sustain profitability or to have positive cash flows.

OmniMetrix's future is dependent on our ability to successfully integrate its operations with GridSense and execute an effective restructuring plan.

We are currently developing a restructuring plan to align OmniMetrix expenses with revenue. We continue to believe that we offer an excellent product and that a significant market exists for our monitoring services. Nonetheless, we believe that its high margin recurring revenue feature, coupled with GridSense's historically larger but uneven sales volume, can be combined to produce a machine-to-machine (M2M) asset that could ultimately increase shareholder value in the future while costing Acorn very little cash going forward. While there can be no assurance that this plan will be successful, we believe that the joint management of GridSense and OmniMetrix will help identify and monetize synergies when the two companies' operations are more fully combined.

OmniMetrix current business model is predicated on the penetration rate of its PG monitoring units into the PG market.

OmniMetrix currently provides its PG monitoring units at minimal or no costs to certain customers in order to accelerate the penetration rate. Accordingly, it does not cover its hardware costs on these units and depends on these customers maintaining their monitoring service connections to fund the company's future working capital needs. This business model has not yet been proven to be sustainable. If the pace of the demand for these PG units is below our expectations, the service monitoring revenue received from these units may not be enough to cover the fixed expenses of the company.

An increase in customer terminations would negatively affect our business by reducing OmniMetrix revenue or requiring us to spend more money to grow our customer base.

We reported a \$1.1 million impairment charge in the 2013 second quarter related to the loss of business from a key customer. Non-renewals or other monitoring service terminations could increase in the future due to customer dissatisfaction with our products and services, increased competition from other providers or alternative technologies.

If we have an increase in our nonrenewal rate, we will have to acquire new customers on an ongoing basis just to maintain our existing level of customers and revenues. As a result, marketing expenditures are an ongoing requirement of our business. We incur significant costs to acquire new customers, and those costs are an important factor in determining our net profitability. Therefore, if we are unsuccessful in retaining customers or are required to spend significant amounts to acquire new customers, our revenue could decrease and our operating results could be affected.

OmniMetrix is a relatively small company with limited resources compared to some of its current and potential competitors, which may hinder its ability to compete effectively.

Some of OmniMetrix's current and potential competitors have significantly greater resources and broader name recognition than it does. As a result, these competitors may have greater credibility with OmniMetrix's existing and potential customers. They also may be able to adopt more aggressive pricing policies and devote greater resources to the development, promotion and sale of their products which would allow them to respond more quickly to new or emerging technologies or changes in customer requirements. In particular at the present time we are facing significant competition from generator manufacturers who offer their own monitoring solutions.

OmniMetrix may not be able to access sufficient capital to support growth.

Since our acquisition of OmniMetrix in February 2012, we invested approximately \$5.4 million to support its growth and working capital needs. OmniMetrix has been dependent on Acorn's ability and willingness to provide funding to support its business and growth strategy. We anticipate that we will invest up to \$1 million into OmniMetrix during the fourth quarter of 2013. Thereafter, we have budgeted for OmniMetrix operations (combined with the operations from GridSense) to become cash flow neutral as it completes its restructuring and integration with GridSense. If that does not occur, whether Acorn will have the resources necessary to provide funding, or whether alternative funds, such as third-party loans, will be available at the time and on terms acceptable to Acorn and OmniMetrix cannot be determined.

Additional support to OmniMetrix may be in the form of a bank line, new investment by others, additional investment by Acorn, or a combination of the above. OmniMetrix was not successful in recent negotiations with commercial banks for a credit facility and we otherwise have no assurance that additional support will be available in sufficient amounts, in a timely manner and on acceptable terms. The availability and amount of any additional investment from Acorn may be limited by the investment and working capital needs of our corporate activities and other operating companies.

S-30

OmniMetrix must realign overhead with expected revenue.

We are currently implementing a plan to align OmniMetrix's operating expenses with revenues, but whether and to what extent such alignment can be achieved has not yet been determined. There can be no assurance that our restructuring efforts will be successful or that we will have sufficient funds to sustain OmniMetrix if they are not in view of our decision to focus our resources at USSI.

OmniMetrix sells equipment and services which monitor third-party products, thus its revenues are dependent on the continued sales of such third-party products.

OmniMetrix's end-user customer base is comprised exclusively of parties who have chosen to purchase either generators or cathodic protection systems. OmniMetrix has no ability to control the rate at which new generators or CP protection systems are acquired. When purchases of such products decline, the associated need for OmniMetrix's products and services is expected to decline as well.

If OmniMetrix is unable to keep pace with changing market or customer-mandated product and service improvements, OmniMetrix's results of operations and financial condition may suffer.

Many of OmniMetrix's existing products may require ongoing engineering and upgrades in conjunction with market developments as well as specific customer needs. There can be no assurance that OmniMetrix will continue to be successful in its engineering efforts regarding the development of its products and future technological difficulties could adversely affect its business, results of operations and financial condition.

The cellular networks used by OmniMetrix are also subject to periodic technical updates that may require corresponding updates to, or replacement of, OmniMetrix's monitoring equipment.

Cellular networks have evolved over time to offer more robust technical capabilities in both voice and data transmission. At the present time, the changes from the so-called "2G" to "3G" and "4G" service have resulted in only limited service interruptions. OmniMetrix anticipates, however, that as these new capabilities come online, it will be necessary to have equipment that can readily interface with the newer cellular networks to avoid negative impacts on customer service. Not all of the costs associated with OmniMetrix's corresponding equipment upgrades can be passed on to customers and the increased expenses are expected to have a negative impact on OmniMetrix's operating results.

A substantial portion of OmniMetrix's revenues are expected to be generated not from product sales, but from periodic monitoring fees and thus it is continually exposed to risks associated with its customers' financial stability.

OmniMetrix sells on-going monitoring services to both PG and CP customers. It is therefore dependent on these customers continuing to timely pay service fees on an on-going basis. If a significant portion of these fees are not renewed from year-to-year, OmniMetrix can expect to experience deterioration in its financial condition.

S-31

OmniMetrix's ability to provide, and to collect revenues from, monitoring services is dependent on the reliability of cellular networks not controlled by OmniMetrix.

OmniMetrix provides monitoring services through the use of cellular technology utilizing the networks of third-party providers. These providers generally do not warrant their services to either OmniMetrix or the end users and any dropped transmissions could result in the loss of customer renewals and potential claims against OmniMetrix. While OmniMetrix uses contractual measures to limit its liability to customers, there is no assurance that such limitations will be enforced or that customers will not cancel monitoring services due to network issues.

OmniMetrix's business is dependent on its ability to reliably store and manage data, but there can be no guarantee that it has sufficient capabilities to mitigate potential data loss in all cases.

The efficient operation of OmniMetrix's business is dependent on its information technology systems. In addition, OmniMetrix's ability to assist customers in analyzing data related to the performance of such customers' power and cathodic protection monitoring systems is an important component of its customer value proposition. OmniMetrix utilizes off-site data servers, housed within a commercial data center utilizing accepted data and power monitoring and protection processes, but whether a data loss can be avoided cannot be assured in every case. OmniMetrix's information technology systems are vulnerable to damage or interruption from natural disasters, sabotage (including theft and attacks by computer viruses or hackers), power outages; and computer systems, Internet, telecommunications or data network failure. Any interruption of OmniMetrix's information technology systems could result in decreased revenue, increased expenses, increased capital expenditures, customer dissatisfaction and potential lawsuits, any of which could have a material adverse effect on its results of operations and financial condition.

OmniMetrix is currently dependent on a single subcontractor for the assembly of its products for large bulk orders.

OmniMetrix's ability to deliver its products to its customers on a timely basis is dependent on the production processes of its selected subcontractor. Financial or production difficulties at such subcontractor could have a negative impact on OmniMetrix's ability to deliver its products timely and cause a loss of customer confidence. Although more than one subcontractor is qualified to produce OmniMetrix components, OmniMetrix may not be able to successfully make a change in a timely manner or on acceptable terms. Any difficulties OmniMetrix encounters as a result of its reliance on this subcontractor could have a material adverse effect on its operations and financial condition.

USE OF PROCEEDS

We estimate that the net proceeds of this offering, after deducting underwriting commissions and our estimated offering expenses, will be approximately \$ million, or approximately \$ million if the underwriters exercise the over-allotment option in full.

We expect to use the net proceeds from this offering primarily to provide working capital for the development of USSI and for other general corporate purposes.

S-32

PRICE RANGE OF COMMON STOCK

Our common stock is currently traded on the NASDAQ Global Market under the symbol “ACFN”. The following table sets forth, for the periods indicated, the high and low reported sales prices per share of our common stock on NASDAQ.

| | High | Low |
|--|-------------|------------|
| 2011: | | |
| First Quarter | \$4.37 | \$3.56 |
| Second Quarter | 4.16 | 3.46 |
| Third Quarter | 5.72 | 4.07 |
| Fourth Quarter | 6.30 | 4.64 |
| 2012: | | |
| First Quarter | \$10.87 | \$6.35 |
| Second Quarter | 12.84 | 8.00 |
| Third Quarter | 10.27 | 8.09 |
| Fourth Quarter | 8.99 | 7.24 |
| 2013: | | |
| First Quarter | \$8.39 | \$6.16 |
| Second Quarter | 9.24 | 6.35 |
| Third Quarter | 9.90 | 5.75 |
| Fourth Quarter (through October 4, 2013) | 6.08 | 4.84 |

As of October 4, 2013, the last reported sales price of our common stock on the Nasdaq Global Market was \$4.94. As of October 4, 2013, there were 110 record holders of our common stock and we estimate that there were approximately 4,700 beneficial owners of our common stock.

DIVIDEND POLICY

The Company paid cash dividends on its common stock during the years ended December 31, 2011, 2012 and 2013 as follows:

| Record Dates | Payment Dates | Per Share |
|--------------------------------------|----------------------|------------------|
| Year ended December 31, 2011 | | |
| November 16, 2011 | November 28, 2011 | \$0.035 |
| Total | | \$0.035 |
| Year ended December 31, 2012 | | |
| December 30, 2011* | January 9, 2012 | \$0.050 |
| February 20, 2012 | March 1, 2012 | \$0.035 |
| May 15, 2012 | June 1, 2012 | \$0.035 |
| August 17, 2012 | September 4, 2012 | \$0.035 |
| November 15, 2012 | December 3, 2012 | \$0.035 |
| Total | | \$0.190 |
| Year ending December 31, 2013 | | |
| February 20, 2013 | March 4, 2013 | \$0.035 |
| Total | | \$0.035 |

* Special dividend

In October 2011, our Board of Directors adopted a dividend policy pursuant to which we expected to pay quarterly dividends on our common stock. We suspended this policy after our March 2013 dividend payment and do not presently intend to pay dividends to our stockholders in the foreseeable future. We intend to reinvest earnings, if any, in the development and expansion of our business.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of June 30, 2013 on an actual basis, and on an adjusted basis to give effect to the sale of common stock in this offering, based on the public offering price and after deducting the underwriting discounts and commissions and estimated expenses related to this offering payable by us. You should read this table in conjunction with our consolidated financial statements and the related notes, thereto, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the other financial information incorporated by reference into this prospectus supplement. See also "Summary--Recent Developments."

| | As of June 30, 2013 | |
|---|---------------------------|----------------|
| | Actual | As Adjusted |
| | (dollars in thousands) | |
| Cash and cash equivalents | \$13,349 | |
| Long-term debt | \$ | \$ |
| Shareholders' equity: | | |
| Common stock, par value \$0.01 per share; authorized 30,000,000 shares; issued 18,892,456* actual and *, as adjusted | 188 | |
| Additional paid-in capital | 83,494 | |
| Warrants | 44 | |
| Accumulated deficit | (41,882) | (41,882) |
| Treasury stock, at cost, 801,920 shares | (3,036) | (3,036) |
| Accumulated other comprehensive income | 319 | 319 |
| Total shareholders' equity | 39,127 | |
| Total capitalization | \$39,127 | \$ |

*Includes 801,920 treasury shares

DILUTION

If you invest in our shares, your interest in the common stock contained therein will be diluted to the extent of the difference between the public offering price per share of our shares and the net tangible book value per share of our common stock after this offering. Our net tangible book value on June 30, 2013 was approximately \$39.7 million, or approximately \$2.20 per share of common stock. Net tangible book value per share is determined by dividing our net

tangible book value, which consists of tangible assets less total liabilities, by the number of shares of common stock outstanding on that date. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares in this offering and the net tangible book value per share of common stock immediately after the completion of this offering. After giving effect to the sale of _____ shares of our common stock in this offering at a public offering price of \$ _____ per share, less the discounts and commissions due to the underwriter and our estimated offering expenses, our adjusted net tangible book value as of June 30, 2013, would have been approximately \$ _____, or \$ _____ per share. This represents an immediate increase in the net tangible book value of \$ _____ per share to existing stockholders and an immediate dilution of \$ _____ per share to anyone who purchases shares in the offering. The following table illustrates this per share dilution:

S-35

| | | |
|---|--|--------|
| Public offering price per share: | | \$ |
| Net tangible book value per share as of June 30, 2013 | | \$2.20 |
| Increase in net tangible book value per share attributable to this offering: | | \$ |
| Pro forma net tangible book value per share as of June 30, 2013 after giving effect to this offering: | | \$ |
| Dilution per share to new investors in this offering: | | \$ |

If the underwriters exercise in full their option to purchase _____ additional shares of common stock at the public offering price of _____ per share, the as adjusted net tangible book value after this offering would have been \$ _____ per share, representing an increase in net tangible book value of \$ _____ per share to existing stockholders and immediate dilution in net tangible book value of \$ _____ per share to new investors purchasing shares of our common stock in this offering.

The foregoing table is based 18,090,536 shares of our common stock outstanding as of June 30, 2013.

In addition, the calculations in the foregoing table do not take into account any of the following:

1,392,858 shares subject to outstanding options as of June 30, 2013, having a weighted average exercise price of \$5.34 per share, _____ of which have been exercised through the date hereof; and
 23,000 shares subject to outstanding warrants as of June 30, 2013, all of which are exercisable at a price of \$3.68 per share, none of which have been exercised through the date hereof.

To the extent that any of our outstanding options or warrants are exercised, we grant additional options under our stock option plans or issue additional warrants, or we issue additional shares of common stock in the future, there may be further dilution to new investors.

RELATED PARTY TRANSACTIONS

Certain of our directors and officers have indicated an interest in purchasing an aggregate of approximately 140,000 shares of our common stock in this offering on the same terms and subject to the same conditions as the other investors in the offering. Their indications of interest are not binding agreements or commitments to purchase shares in this offering. We intend to seek approval of the Audit Committee of our Board of Directors prior to the proposed participation by these individuals in the offering.

S-36

UNDERWRITING

We have entered into an underwriting agreement dated _____, 2013 with Maxim Group LLC acting as sole book running manager for the underwriters named below. Subject to the terms and conditions of the underwriting agreement, the underwriters named below have agreed to purchase, and we have agreed to sell to them, the number of shares of our common stock at the public offering price, less the underwriting discounts and commissions, as set forth on the cover page of this prospectus supplement and as indicated below:

| Underwriter | Number of Shares |
|---------------------------------|---------------------------------|
| Maxim Group LLC | |
| CChardan Capital Markets LLC | |
| National Securities Corporation | |
| FIG Partners LLC | |
| Total | |

The underwriting agreement provides that the obligations of the underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus supplement are subject to the approval of certain legal matters by their counsel and to other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus supplement if any such shares are taken, other than those shares covered by the over-allotment option described below.

Pursuant to the underwriting agreement, we have agreed to grant to the underwriters an option to purchase up to additional shares of common stock at the public offering price per share, less the underwriting discount, set forth on the cover page of this prospectus supplement. This option is exercisable during the 45-day period after the date of this prospectus supplement. The underwriters may exercise this option only to cover over-allotments made in connection with this offering.

The representative has advised us that the underwriters propose to offer the shares of common stock to the public at the public offering price per share set forth on the cover page of this prospectus supplement. The underwriters may offer shares to securities dealers, who may include the underwriters, at that public offering price less a concession of up to \$ _____ per share. After the offering to the public, the offering price and other selling terms may be changed by the representative.

The following table summarizes the public offering price, underwriting discounts and commissions and proceeds before expenses to us assuming both no exercise and full exercise of the underwriters' option to purchase additional shares:

| | <u>Per</u> <u>Share</u> | <u>Total</u> <u>Without</u> | <u>With</u> |
|--|----------------------------|--------------------------------|------------------|
| | | <u>Over-</u> | <u>Over-</u> |
| | | <u>Allotment</u> | <u>Allotment</u> |
| Public offering price | \$ | \$ | \$ |
| Underwriting discounts and commissions | | | |
| Proceeds, before expenses, to us | | | |

The expenses of the offering, not including the underwriting discounts and commissions, payable by us are estimated to be approximately \$ (35,000 of which has been paid to Maxim as an expense advance and shall be applied towards fees payable at closing), which includes reimbursements to the underwriters for legal fees and other expenses incurred in connection with this offering. In no event will Maxim be entitled to reimbursement of expenses in excess of \$46,500 for expenses (including background checks with respect to the Company's senior management) other than legal fees plus the greater of \$100,000 or 1% of the gross proceeds of the offering for legal fees. We have granted Maxim the right to participate with at least 25.0% of the economics; for any and all future equity, equity-linked or debt (excluding commercial bank debt) offerings undertaken by the Company or any subsidiary of the Company prior to April , 2014.

Underwriter Compensation Warrants

The Company shall issue to Maxim, upon the closing of the offering, underwriter warrants equal in number to 6.5% of the aggregate number of shares of common stock issued under the offering, including shares issued pursuant to the exercise of the over-allotment option. Each underwriter warrant will have a term of five years from October 1, 2013 and may be exercised on a cashless basis. The underwriter warrants will have an exercise price equal to 110% of the per share price of the common stock sold in this offering. The underwriter warrants are exercisable commencing 180 days after the date of this prospectus supplement. The underwriter warrants are not redeemable by us.

The underwriter warrants and the shares of our common stock underlying such warrants are deemed to be underwriting compensation by the FINRA and are therefore subject to a 180-day lock-up pursuant to FINRA Rule 5110(g)(1). The underwriter (or permitted assignee under the rule) may not sell, transfer, assign, pledge or hypothecate the underwriter warrants or the securities underlying these warrants, nor will it engage in any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the underwriter warrants or the underlying securities for a period of 180 days from the date of this prospectus supplement, except to any FINRA member participating in the offering and their bona fide officers or partners.

Lock Up Agreements

We have agreed not to offer, sell, contract to sell, pledge, grant options to purchase, or otherwise dispose of any shares of our common stock or securities exchangeable for or convertible into our common stock for a period of 180 days after the date of this prospectus supplement without the prior written consent of Maxim Group LLC. This agreement does not apply to the issuance of shares upon the exercise of rights to acquire shares of common stock pursuant to any existing stock option or similar equity incentive or compensation plan. Our directors and executive officers have agreed, subject to certain exceptions, not to, directly or indirectly, sell, hedge, or otherwise dispose of any shares of common stock, options to acquire shares of common stock or securities exchangeable for or convertible into shares of common stock, for a period of 180 days after the date of this prospectus supplement without the prior written consent of Maxim Group LLC.

However, in the event that either (i) during the last 17 days of the “lock-up” period, we release earnings results or material news or a material event relating to us occurs or (ii) prior to the expiration of the “lock-up” period, we announce that we will release earnings results during the 16-day period beginning on the last day of the “lock-up” period, the expiration of the “lock-up” will be extended until the expiration of the 18-day period beginning on the date of the release of the earnings results or the occurrence of the material news or event, as applicable, unless Maxim Group LLC waives, in writing, such an extension.

Indemnification

The underwriting agreement provides that we will indemnify the underwriters against certain liabilities that may be incurred in connection with this offering, including liabilities under the Securities Act, or to contribute payments that the underwriters may be required to make in respect thereof.

S-38

Price Stabilization, Short Positions and Penalty Bids

In connection with this offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriters may over-allot in connection with this offering by selling more shares than are set forth on the cover page of this prospectus supplement. This creates a short position in our common stock for its own account. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriter is not greater than the number of shares that it may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. To close out a short position or to stabilize the price of our common stock, the underwriters may bid for, and purchase, common stock in the open market. The underwriters may also elect to reduce any short position by exercising all or part of the over-allotment option. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which it may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter or dealer repays selling concessions allowed to it for distributing our common stock in this offering because the underwriter repurchases that stock in stabilizing or short covering transactions.

Finally, the underwriters may bid for, and purchase, shares of our common stock in market making transactions, including “passive” market making transactions as described below.

These activities may stabilize or maintain the market price of our common stock at a price that is higher than the price that might otherwise exist in the absence of these activities. The underwriters are not required to engage in these activities, and may discontinue any of these activities at any time without notice. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market, or otherwise.

In connection with this offering, the underwriters and selling group members, if any, or their affiliates may engage in passive market making transactions in our common stock on The NASDAQ Global Market immediately prior to the commencement of sales in this offering, in accordance with Rule 103 of Regulation M under the Exchange Act. Rule 103 generally provides that:

-

a passive market maker may not effect transactions or display bids for our common stock in excess of the highest independent bid price by persons who are not passive market makers;

net purchases by a passive market maker on each day are generally limited to 30% of the passive market maker's average daily trading volume in our common stock during a specified two-month prior period or 200 shares, whichever is greater, and must be discontinued when that limit is reached; and

passive market making bids must be identified as such.

-

Passive market making may stabilize or maintain the market price of our common stock at a level above that which might otherwise prevail and, if commenced, may be discontinued at any time.

S-39

The underwriters and their affiliates may in the future provide, various investment banking and other financial services for us, for which they may receive in the future, customary fees.

Electronic Distribution

This prospectus supplement and the accompanying prospectus may be made available in electronic format on websites or through other online services maintained by the underwriter or by its affiliates. In those cases, prospective investors may view offering terms online and prospective investors may be allowed to place orders online. Other than this prospectus supplement and the accompanying prospectus in electronic format, the information on the underwriter's website or our website and any information contained in any other website maintained by the underwriter or by us is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus forms a part, has not been approved and/or endorsed by us or the underwriter in its capacity as underwriter, and should not be relied upon by investors.

Listing and Transfer Agent

Our common stock is listed on the NASDAQ Global Market and trades under the symbol "ACFN" The transfer agent of our common stock is American Stock Transfer & Trust Company, LLC.

Affiliations

The underwriters and/or their respective affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees. Except for services provided in connection with this offering, the underwriters have not provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus supplement and we do not expect to retain any of the underwriters to perform any investment banking or other financial services for at least 90 days after the date of this prospectus supplement.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement will be passed upon for us by Eilenberg & Krause LLP, New York, New York. Loeb & Loeb LLP, New York, New York, is counsel for the

underwriters in connection with this offering.

EXPERTS

The consolidated financial statements as of December 31, 2012 and 2011, and for each of the three years in the period ended December 31, 2012, incorporated in this prospectus supplement by reference from our Annual Report on Form 10-K, have been audited by Friedman LLP, an independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such consolidated financial statements have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. Copies of our reports, proxy statements and other information may be inspected and copied at the SEC's Public Reference Room at 100 F. Street, N.E., Washington, D.C. 20549. Copies of these materials can also be obtained by mail at prescribed rates from the Public Reference Room of the SEC, 100 F. Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding our company and other issuers that file electronically with the SEC. The address of the SEC internet site is www.sec.gov. This information is also available on our website at www.acornenergy.com. Information contained in our website does not constitute part of this prospectus supplement or the accompanying prospectus.

S-40

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus supplement the information we have filed with the SEC. This means that we can disclose important information by referring you to those documents. All documents that we subsequently file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of this offering, will be deemed to be incorporated by reference into this prospectus supplement and to be a part hereof from the date of filing of such documents. Unless expressly incorporated into this prospectus supplement, a Current Report (or portion thereof) furnished, but not filed, on Form 8-K shall not be incorporated by reference into this prospectus. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus supplement shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

We incorporate by reference the following documents that we have filed with the SEC and any filings that we will make with the SEC in the future under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is terminated:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2012;
- Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2013;
- Amendment No. 1 to Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2013;
- Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2013;
- Current Report on Form 8-K filed May 9, 2013 with respect to Item 5.02 only;
- Current Report on Form 8-K filed July 2, 2013;
- Current Report on Form 8-K filed July 31, 2013;
- Current Report on Form 8-K filed September 3, 2013;

Current Report on Form 8-K filed September 24, 2013;

Current Report on Form 8-K filed on the same date of filing of this prospectus supplement; and

The description of our Common Stock contained in our Form 8-A filed December 13, 2007.

Copies of these filings are available free of charge by writing to Acorn Energy, Inc., 3903 Centerville Road, Wilmington, Delaware 19807, Attention: Heather K. Mallard, Secretary, or by telephoning us at (302) 656-1707. We will also provide to each person, including any beneficial owner, to whom a prospectus supplement is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus supplement but not delivered with this prospectus supplement. See “Where You Can Find More Information.”

Any statement made in this prospectus supplement concerning the contents of any contract, agreement or other document is only a summary of the actual document. You may obtain a copy of any document summarized in this prospectus supplement at no cost by writing to or telephoning us at the address and telephone number given above. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

S-42

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 October 14, 2010 was \$4.88 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 October 27, 2010.

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.

TABLE OF CONTENTS

| | |
|---|----|
| ABOUT THIS PROSPECTUS | 1 |
| SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS | 1 |
| ABOUT ACORN ENERGY | 2 |
| RISK FACTORS | 3 |
| USE OF PROCEEDS | 3 |
| SECURITIES WE MAY OFFER | 3 |
| DESCRIPTION OF CAPITAL STOCK | 4 |
| DESCRIPTION OF DEBT SECURITIES | 5 |
| DESCRIPTION OF WARRANTS | 11 |
| DESCRIPTION OF RIGHTS | 13 |
| DESCRIPTION OF UNITS | 13 |
| PLAN OF DISTRIBUTION | 13 |
| LEGAL MATTERS | 16 |
| EXPERTS | 16 |
| WHERE YOU CAN FIND MORE INFORMATION | 16 |
| INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE | 16 |

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 expressions to identify these 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.

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 the common stock do not have cumulative voting rights. 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.

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 (which trustee has not yet been selected); the form of the indenture 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 percentage of the series of debt securities necessary to require the trustee to take action;

· what indemnification the trustee may require before proceeding to enforce any liens;

· 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.

We will provide information on the applicable United States income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of, and premium and interest on, any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer And Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depository, or a nominee (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement.

You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, and any premium and interest on, certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we undergo a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person, which we refer to as a successor person, unless:

· we are the surviving corporation or the successor person (if other than us) expressly assumes our obligations on the debt securities and under the indenture;

· immediately after giving effect to the transaction, no event of default, and no event which, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and

certain other conditions are met, including any additional conditions described in the applicable prospectus supplement.

Events of Default

Event of default means, with respect to any series of debt securities, any of the following:

· default in the payment of any interest upon any debt security of that series when it becomes due and payable, and
· continuance of that default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);

· default in the payment of principal of or premium on any debt security of that series when due and payable;

· default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 90 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities of that series as provided in the indenture;

· certain events of bankruptcy, insolvency or reorganization of our company; and

· any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of an event of default may constitute an event of default under our bank credit agreements in existence from time to time. In addition, the occurrence of certain events of default or an acceleration under the indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

If an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of, and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or

reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an event of default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and

the holders of at least a majority in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, and any premium and interest on, that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

If any securities are outstanding under the indenture, the indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Modification And Waiver

We may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment or waiver;

- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;

- reduce the principal of, or premium on, or change the fixed maturity of, any debt security or reduce the amount of, or
·postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of
debt securities;

- reduce the principal amount of discount securities payable upon acceleration of maturity;

waive a default in the payment of the principal of, or premium or interest on, any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration)

make the principal of, or premium or interest on, any debt security payable in currency other than that stated in the debt security;

make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, and premium and interest on, those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or

waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, or any premium or interest on, any debt security of that series or in respect of a covenant or provision, which cannot be modified or amended without the consent of the holder of each outstanding debt security of the series affected; *provided, however*, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration of the debt securities of such series and its consequences, including any related payment default that resulted from the acceleration.

Discharging Our Obligations

We may choose to either discharge our obligations on the debt securities of any series in a legal defeasance, or to release ourselves from our covenant restrictions on the debt securities of any series in a covenant defeasance. We may do so at any time after we deposit with the trustee sufficient cash or government securities to pay the principal, interest, any premium and any other sums due to the stated maturity date or a redemption date of the debt securities of the series. If we choose the legal defeasance option, the holders of the debt securities of the series will not be entitled to the benefits of the indenture except for registration of transfer and exchange of debt securities, replacement of lost, stolen, destroyed or mutilated debt securities, conversion or exchange of debt securities, sinking fund payments and receipt of principal and interest on the original stated due dates or specified redemption dates.

We may discharge our obligations under the indenture or release ourselves from covenant restrictions only if, in addition to making the deposit with the trustee, we meet some specific requirements. Among other things:

· we must deliver an opinion of our legal counsel that the discharge will not result in holders having to recognize taxable income or loss or subject them to different tax treatment. In the case of legal defeasance, this opinion must be based on either an IRS letter ruling or change in federal tax law;

· we may not have a default on the debt securities discharged on the date of deposit;

· the discharge may not violate any of our agreements; and

the discharge may not result in our becoming an investment company in violation of the Investment Company Act of 1940.

Governing Law

The indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York, without regard to conflict of law principles that would result in the application of any law other than the laws of the State of New York.

DESCRIPTION OF WARRANTS

We may issue, either separately or together with other securities, warrants for the purchase of any securities, including any combination of common stock or debt securities that we may sell under this prospectus. Warrants may be issued separately or together with other securities.

The warrants will be issued under warrant agreements to be entered into between us and the warrant holder as set forth in the applicable prospectus supplement relating to any or all warrants with respect to which this prospectus is being delivered. Copies of the form of agreement for each warrant, which we refer to collectively as “warrant agreements,” including the forms of certificates representing the warrants, which we refer to collectively as “warrant certificates,” and reflecting the provisions to be included in such agreements that will be entered into with respect to a particular offering of each type of warrant, will be filed with the SEC and incorporated by reference as exhibits to the registration statement of which this prospectus is a part or as an exhibit to a Current Report on Form 8-K.

The following description sets forth certain general terms and provisions of the warrants to which any prospectus supplement may relate. The particular terms of the warrants to which any prospectus supplement may relate and the extent, if any, to which the general provisions may apply to the warrants so offered will be described in the applicable prospectus supplement. To the extent that any particular terms of the warrants, warrant agreements or warrant certificates described in a prospectus supplement differ from any of the terms described in this section, then the terms described in this section will be deemed to have been superseded by that prospectus supplement. We encourage you to read the applicable warrant agreement and certificate for additional information before you purchase any of our warrants.

General

The prospectus supplement will describe the terms of the warrants with respect to which this prospectus is being delivered, as well as the related warrant agreement and warrant certificates, including the following, where applicable:

- the number of, securities purchasable upon exercise of each warrant and the initial price at which the number of securities may be purchased upon such exercise;

- the designation and terms of the securities, if other than common stock, purchasable upon exercise of the warrants and of any securities, if other than common stock, with which the warrants are issued;

- the procedures and conditions relating to the exercise of the warrants;
 - the date, if any, on and after which the warrants, and any securities with which the warrants are issued, will be separately transferable;

• the offering price, if any, of the warrants;

• the date on which the right to exercise the warrants will commence and the date on which that right will expire;

• if applicable, a discussion of the material United States federal income tax considerations applicable to the exercise of the warrants;

• whether the warrants represented by the warrant certificates will be issued in registered or bearer form and, if registered, where they may be transferred and registered;

• all provisions, if any, of the warrants;

• antidilution provisions, if any, of the warrants; and

• any other material terms of the warrants.

The description of warrants in the prospectus supplement will not necessarily be complete and will be qualified in its entirety by reference to the warrant agreement and warrant certificate relating to the warrants being offered.

Exercise of Warrants

Each warrant will entitle the holder to purchase for cash that principal amount of, or number of, securities, as the case may be, at the exercise price set forth in, or to be determined as set forth in, the applicable prospectus supplement relating to the warrants. If mentioned in the relevant prospectus supplement, securities may be surrendered as all or part of the exercise of the warrants. Unless otherwise specified in the applicable prospectus supplement, warrants may be exercised as indicated in the applicable prospectus supplement at any time up to the close of business, New York City time, on the expiration date set forth in the applicable prospectus supplement. After the close of business, New York City time, on the expiration date, unexercised warrants will become void. Upon receipt of payment and the warrant certificate properly completed and duly executed, we will, as soon as practicable, issue the securities purchasable upon exercise of the warrant. If less than all of the warrants represented by the warrant certificate are exercised, a new warrant certificate will be issued for the remaining amount of warrants.

No Rights of Security Holder Prior to Exercise

Before the exercise of their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon the exercise of the warrants, and will not be entitled to, among other things, vote or receive dividend payments or similar distributions on the securities purchasable upon exercise.

Exchange of Warrant Certificates

Warrant certificates may be exchangeable for new warrant certificates of different denominations as indicated in the applicable prospectus supplement.

DESCRIPTION OF RIGHTS

We may issue rights to our stockholders for the purchase of shares of our common stock. Each series of rights will be issued under a separate rights agreement to be entered into between our company and a bank or trust company, as rights agent, all as set forth in the prospectus supplement relating to the particular issue of rights. The rights agent will act solely as an agent of our company in connection with the certificates relating to the rights of such series and will not assume any obligation or relationship of agency or trust for or with any holders of rights certificates or beneficial owners of rights. The rights agreement and the form of rights certificate relating to each series of rights will be filed with the SEC and incorporated by reference as an exhibit to the registration statement of which this prospectus is a part or as an exhibit to a Current Report on Form 8-K. 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. We encourage you to read the applicable rights agreement and form of rights certificate before you purchase any of our rights.

DESCRIPTION OF UNITS

We may issue units to purchase one or more of the securities referenced herein. The terms of such units will be set forth in a prospectus supplement. The form of units and the applicable unit agreement will be filed with the SEC and incorporated by reference as exhibits to the registration statement of which this prospectus is a part or as an exhibit to a Current Report on Form 8-K. We encourage you to read the applicable unit agreement and form of unit before you purchase any of our units.

PLAN OF DISTRIBUTION

We may sell the offered securities (1) through underwriters or dealers; (2) directly to purchasers, including our affiliates and shareholders, or in a rights offering; (3) through agents; or (4) through a combination of any of these methods. The prospectus supplement will include the following information:

- the terms of the offering;

- the names of any underwriters, dealers or agents;

- the name or names of any managing underwriter or underwriters;

- the purchase price of the securities;
- the net proceeds from the sale of the securities;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any delayed delivery arrangements;
- any underwriting discounts or commissions or agency fees and other items constituting underwriters' or agent's compensation;
- any discounts, commissions, or concessions allowed or reallocated or paid to dealers;
- any commissions paid to agents; and
- any securities exchanges or markets on which the securities may be listed.

Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

Underwriters may offer and sell the offered securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. If underwriters are used in the sale of any securities, the securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions described above. The securities may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Unless we inform you otherwise in the prospectus supplement or free-writing prospectus, the underwriters' obligations to purchase the securities will be subject to certain conditions precedent and the underwriters will be obligated to purchase all of the securities if they purchase any of the securities. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement or free writing prospectus, naming the underwriter, the nature of any such relationship.

We may sell the securities directly or through agents from time to time. The prospectus supplement or free writing prospectus will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Unless we inform you otherwise in the prospectus supplement or free-writing prospectus, any agent will be acting on a best efforts basis for the period of its appointment.

We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. We will describe the terms of any such sales in the prospectus supplement or free-writing prospectus.

We may also make direct sales through subscription rights distributed to our existing stockholders on a pro rata basis that may or may not be transferable. In any distribution of subscription rights to our stockholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or we may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

Offered securities also may be offered and sold, if so indicated in the applicable prospectus supplement or free-writing prospectus, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. Any remarketing firm will be identified and the terms of its agreements, if any, with us and its compensation will be described in the applicable prospectus supplement. Remarketing firms may be deemed to be underwriters, as that term is defined in the Securities Act, in connection with the securities remarketed.

We may engage in at-the-market offerings of our common stock. An at-the-market offering is an offering of our common stock at other than a fixed price or through a market maker.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from us at the public offering price set forth in the prospectus supplement or free writing prospectus pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement or free writing prospectus, and the prospectus supplement or free writing prospectus will set forth any commissions we pay for solicitation of these contracts.

Agents and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents or underwriters may be required to make in respect thereof. Agents and underwriters may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters who are qualified market makers on the Nasdaq Global Market may engage in passive market making transactions in our common stock, warrants, debt securities, rights or units, as applicable, on the Nasdaq Global Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

Broker-dealers engaged by us may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from us (or, if any broker-dealer acts as agent for the purchaser of shares, 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 NASD Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with NASD IM-2440-1 and IM-2440-2.

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

We 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. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

LEGAL MATTERS

The validity of the issuance of securities offered by this prospectus will be passed upon for us by Eilenberg & Krause LLP, New York, New York.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2009 of Acorn Energy, Inc. have been so incorporated in reliance on the report of Kesselman & Kesselman, a member of PricewaterhouseCoopers International Limited, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting. Such consolidated financial statements have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing. The financial statements of Decision Dynamics Technology Ltd. incorporated in this prospectus by reference to Amendment No. 1 on Form 8-K/A filed on July 15, 2010 to our Current Report on Form 8-K ("Amendment No. 1") have been so incorporated in reliance on the report of KPMG LLP, independent registered public accounting firm, included in Amendment No. 1, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. Copies of our reports, proxy statements and other information may be inspected and copied at the SEC's Public Reference Room at 100 F. Street, N.E., Washington, D.C. 20549. Copies of these materials can also be obtained by mail at prescribed rates from the Public Reference Room of the SEC, 100 F. Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding our company and other issuers that file electronically with the SEC. The address of the SEC internet site is www.sec.gov. This information is also available on our website at www.acornenergy.com. Information contained in our website does not constitute part of this prospectus.

We have filed a registration statement on Form S-3 under the Securities Act with the SEC with respect to the securities to be sold hereunder. This prospectus has been filed as part of that registration statement. This prospectus does not contain all of the information set forth in the registration statement because certain parts of the registration statement are omitted in accordance with the rules and regulations of the SEC. We will provide a copy of any and all of the information that is incorporated by reference in this prospectus, without charge, upon written or oral request. If

you would like to obtain this information from us, please direct your request, either in writing or by telephone, to Investor Relations, Acorn Energy, Inc., 4 West Rockland Road, Montchanin, DE 19710, Attention: Joe B. Cogdell, Jr., Secretary, (302) 656-1707.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information we have filed with the SEC. This means that we can disclose important information by referring you to those documents. All documents that we subsequently file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of this offering, will be deemed to be incorporated by reference into this prospectus and to be a part hereof from the date of filing of such documents. Unless expressly incorporated into this prospectus, a Current Report (or portion thereof) furnished, but not filed, on Form 8-K shall not be incorporated by reference into this prospectus. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We incorporate by reference the following documents that we have filed with the SEC and any filings that we will make with the SEC in the future under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is terminated:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2009 filed on March 22, 2010;

- Current Report on Form 8-K filed on February 24, 2010 (except as to Item 7.01 thereof which is not incorporated by reference herein)

- Current Report on Form 8-K filed on March 4, 2010 (except as to Item 7.01 thereof which is not incorporated by reference herein);

- Current Report on Form 8-K filed on March 9, 2010;

- Current Report on Form 8-K filed on April 9, 2010;

- Current Report on Form 8-K filed on May 4, 2010 (except as to Item 7.01 thereof which is not incorporated by reference herein) and amended on Form 8-K/A filed on May 5, 2010 and amended on Form 8-K/A filed on July 15, 2010;

- Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2010 filed on May 13, 2010;

- Current Report on Form 8-K filed on May 13, 2010 (except as to Item 7.01 thereof which is not incorporated by reference herein) and amended on Form 8-K/A filed on June 17, 2010;

- Current Report on Form 8-K filed on June 16, 2010;

- Current Report on Form 8-K filed July 27, 2010;

- Current Report on Form 8-K filed July 30, 2010 and amended on Form 8-K/A filed on July 30, 2010;

- Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2010 filed on August 12, 2010;

- The description of our Common Stock contained in our Form 8-A filed December 13, 2007; and

All documents filed by us with the SEC pursuant to the Exchange Act after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness thereof.

Copies of these filings are available free of charge by writing to Acorn Energy, Inc., 4 West Rockland Road, Montchanin, Delaware 19710, Attention: Joe B. Cogdell, Jr., Secretary, or by telephoning us at (302) 656-1707. We will also provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus. See “Where You Can Find More Information.”

Any statement made in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual document. You may obtain a copy of any document summarized in this prospectus at no cost by writing to or telephoning us at the address and telephone number given above. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| About This Prospectus Supplement | S-1 |
| Special Note Regarding Forward-Looking Statements | S-1 |
| Prospectus Supplement Summary | S-2 |
| The Offering | S-11 |
| Risk Factors | S-12 |
| Use of Proceeds | S-32 |
| Price Range of Common Stock | S-33 |
| Dividend Policy | S-34 |
| Capitalization | S-35 |
| Dilution | S-35 |
| Related Party Transactions | S-36 |
| Underwriting | S-37 |

| | |
|---|------|
| Legal Matters | S-40 |
| Experts | S-40 |
| Where You Can Find More Information | S-40 |
| Incorporation of Certain Documents by Reference | S-41 |

\$15,000,000

Acorn Energy, Inc.

_____ **Shares**

**of
Common Stock**

PROSPECTUS SUPPLEMENT

October , 2013

Sole Book Running Manager
Maxim Group LLC

Co-Managers

Chardan Capital Markets LLC
National Securities Corporation
FIG Partners LLC