ACORN ENERGY, INC.
Form 10-K
March 31, 2015

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SECURITIES AND EXCHANGE COMMISSION

**WASHINGTON, D.C. 20549** 

**FORM 10-K** 

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014 Commission file number: 0-19771

ACORN ENERGY, INC.

(Exact name of registrant as specified in charter)

Delaware 22-2786081 (State or other jurisdiction of incorporation or organization) Identification No.)

3844 Kennett Pike, Wilmington, Delaware 19807 (Address of principal executive offices) (Zip Code)

302-656-1707

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of Class Common Stock, par value \$.01 per share	Name of Each Exchange on Which Registered The NASDAQ Global Market
Securities registered pursuant to Section 1	.2(g) of the Act:
None	
Indicate by check mark if the registrant is a v Yes [ ] No [X]	well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Indicate by check mark if the registrant is no Exchange Act. Yes [ ] No [X]	t required to file reports pursuant to Section 13 or Section 15(d) of the
Securities Exchange Act of 1934 during the I	at (1) has filed all reports required to be filed by Section 13 or 15(d) of the preceding 12 months (or for such shorter period that the registrant was an subject to such filing requirements for the past 90 days. Yes [X] No [ ]
any, every Interactive Data File required to b	at has submitted electronically and posted on its corporate Web site, if the submitted and posted pursuant to Rule 405 of Regulation S-T during period that the registrant was required to submit and post such files). Yes
herein, and will not be contained, to the best	quent filers pursuant to Item 405 of Regulation S-K is not contained of registrant's knowledge, in definitive proxy or information statements Form 10-K or any amendment to this Form 10-K. [X]
•	at is a large accelerated filer, an accelerated filer, a non-accelerated filer, nitions of "large accelerated filer," "accelerated filer" and "smaller reporting et. (Check one):
Large accelerated filer [ ] Accelerated filer [	] Non-accelerated filer [ ] Smaller reporting company [X]
Indicate by check mark whether the registran	nt is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes

As of last day of the second fiscal quarter of 2014, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$48.0 million based on the closing sale price on that date as reported on the NASDAQ Global Market. As of March 24, 2015 there were 26,475,591 shares of Common Stock, \$0.01 par value per share, outstanding.

None.

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Certain statements contained in this report are forward-looking in nature. These statements can be identified by the use of forward-looking terminology such as "believes", "expects", "may", "will", "should" or "anticipates", or the negatives thereof, or comparable terminology, or by discussions of strategy. You are cautioned that our business and operations are subject to a variety of risks and uncertainties and, consequently, our actual results may materially differ from those projected by any forward-looking statements. Certain of such risks and uncertainties are discussed below under the heading "Item 1A. Risk Factors."

 $AquaShield^{TM}$ ,  $AquaShield-ER^{TM}$  and  $PointShield^{TM}$  are trademarks of our DSIT Solutions Ltd. subsidiary.  $GridSense^{\circledast}$ ,  $HighV^{TM}$ ,  $GridInSite^{TM}$ ,  $CableIQ^{\circledast}$ ,  $PowerMonic^{TM}$ ,  $BreakerIQ^{\circledast}$ ,  $LineIQ^{\circledast}$ ,  $TransformerIQ^{\circledast}$ , DemandIQ<sup>TM</sup> and  $DistributionIQ^{\circledast}$  are trademarks of our GridSense subsidiaries.  $OmniMetrix^{TM}$ ,  $SmartService^{TM}$ ,  $OmniView^{TM}$ ,  $OmniLink^{TM}$ , and  $OmniScope^{TM}$  are trademarks of our OmniMetrix, LLC subsidiary.

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#### ITEM 1. BUSINESS

#### **OVERVIEW**

Acorn Energy, Inc. ("Acorn" or "the Company") is a holding company focused on technology driven solutions for energy infrastructure asset management. Each of our three 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:

**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.

Machine-to-Machine ("M2M") Critical Asset Monitoring & Control (formerly Power Generation ("PG") Monitoring). These products and services are provided by our OmniMetrix<sup>TM</sup>, LLC ("OmniMetrix") subsidiary. OmniMetrix's M2M products and services deliver critical, real-time machine information to customers and provide remote diagnostics and prognostics that give users real-time visibility of their equipment and assets.

During 2014, each of the abovementioned activities represented a reportable segment. In addition, our "Other" segment represents certain IT activities (protocol management software for cancer patients and billing software) and outsourced consulting activities performed by our DSIT subsidiary as well as Pipeline Monitoring ("PM") activities (for remote monitoring of cathodic protection systems on gas pipelines for gas utilities and pipeline companies) in our OmniMetrix subsidiary, that do not meet the quantitative thresholds and which may be combined for reporting under applicable accounting principles. At December 31, 2014, our continuing operations are represented by three reporting segments: Energy & Security Sonar Solutions (DSIT), Smart Grid Distribution Automation (GridSense) and M2M (OmniMetrix).

The activities of our US Seismic Systems, Inc. subsidiary ("USSI") have been discontinued (see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Recent Developments).

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.

# FINANCIAL RESULTS BY COMPANY

The following table shows, for the periods indicated, the financial results (dollar amounts in thousands) attributable to each of our consolidated companies.

	Year ended	d December	31, 2014		Total	USSI	
	DSIT	GridSense	OmniMetrix	Acorn	Continuing Operations	Discontinued Operations	Total
Revenues	\$12,311	\$4,493	\$ 2,756	<b>\$</b> —	\$ 19,560	\$ 556	\$20,116
Cost of Sales	8,576	3,196	1,150	· —	12,922	1,599	14,521
Gross profit	3,735	1,297	1,606	_	6,638	(1,043)	5,595
Gross profit margin	30 %		•		34 %		
R& D expenses, net of credits	1,002	1,096	616	_	2,714	3,818	6,532
Selling, general and administrative expenses	3,135	2,742	2,586	3,560	12,023	3,644	15,667
Impairment of intangibles	_	1,773	_	_	1,773	9,580	11,353
Restructuring and related charges	_	198	96	_	294	954	1,248
Operating loss	\$(402)	\$ (4,512)	\$ (1,692 )	\$(3,560)	\$(10,166)	\$ (19,039 )	\$(29,205)
	Year ende	ed December	31, 2013				
	DSIT	GridSense	OmniMetri	x Acorn	Total Continuing	USSI Discontinued	Total
					Operations	Operations	
Revenues	\$13,065	\$ 5,026	\$ 2,197	\$	\$ 20,288	\$ 1,468	\$21,756
Cost of Sales	8,624	3,198	963		12,785	3,815	16,600
Gross profit	4,441	1,828	1,234		7,503	(2,347)	•
Gross profit margin	34 %	6 36 9	% 56	% —	37	% (160 )°	% 24
R& D expenses, net of credits	1,511	2,118	647	_	4,276	3,899	8,175
Selling, general and administrative expenses	3,328	3,516	4,544	5,068	16,456	3,360	19,816
Impairment of intangibles	_	_	6,731		6,731		6,731
Restructuring and related charges	_	594	795	_	1,389	_	1,389
Operating loss	\$(398)	\$ (4,400 )	\$ (11,483	\$(5,068	8) \$(21,349)	\$ (9,606)	\$(30,955)

# DSIT SOLUTIONS LTD.

Our 88.3% owned subsidiary (upon conversion of currently held preferred stock) DSIT Solutions Ltd. ("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. In addition, based on expertise in fields such as signal acquisition and processing applications, communication technologies and command, control and communication management ("C3") we provide wide ranging solutions to both governmental and commercial customers.

#### **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.

*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. These solutions include:

AquaShield<sup>TM</sup> Diver Detection Sonar ("DDS") – DSIT has developed an innovative, cost-effective DDS system, the AquaShield<sup>TM</sup>, that provides critical coastal and offshore protection of sites through long-range detection, tracking, classification and warning of unauthorized divers and Swimmer Delivery Vehicles ("SDVs") for rapid deployment and effective response. Our AquaShield<sup>TM</sup> DDS system is fully automatic and customizable, and requires human intervention only for final decision and response to the threat. The DDS sensors can be integrated with other sensors into a comprehensive command and control ("C&C") system to provide a complete tactical picture both above and below the water for more intelligent evaluation of and effective response to threats.

PointShield<sup>TM</sup> Portable Diver Detection Sonar (PDDS) – The PointShield<sup>TM</sup> PDDS is a medium range portable diver detection sonar aimed at protecting vessels at anchorage and covers restricted areas such as water canals and intakes. The PointShield<sup>TM</sup> is a cost-effective system tailored to meet the needs of customers, whose main concern is portability and flexibility.

AquaShield-ER<sup>TM</sup> – The AquaShield-ER<sup>M</sup> (extended range) DDS is similar to our AquaShield<sup>TM</sup> DDS except that it is specially designed to enable detection, tracking and classification of targets at much longer ranges thus enabling better response time when this is required for operational considerations.

Hull Mounted Sonar (HMS) for surface ships - DSIT has started its sonar activity 25 years ago building part of the HMS for the Israeli Navy SAAR 5 corvettes. Since then, a large portion of the sonar functions can be achieved using software which has reduced its cost. In addition, DSIT has created sonar building blocks (see below) that enable it to offer to customers and shipyards a cost effective Hull Mounted Sonar with good performance at an affordable price.

Mobile/Portable Acoustic Range ("MAR/PAR") – The MAR and PAR accurately measures a submarine's or surface vessel's radiated noise; thus enabling navies and shipyards to monitor and control the radiated noise and to silence their submarines and ships. By continuously tracking the measured vessel and transmitting the data to a measurement ship, the MAR system enables real time radiated noise processing, analysis and display. The system also includes a platform database for measurement results management and provides playback and post analysis capability.

Generic Sonar Simulator ("GSS") – DSIT has developed a GSS for the rapid and comprehensive training of Anti-Submarine Warfare ("ASW"), submarine, and mine detection sonar operators. This advanced, low cost, PC-based training simulator is designed for all levels of sonar operators from beginners to the most experienced, including

ship ASW teams. The simulator includes all aspects of sonar operation, with emphasis on training in weak target detection in the presence of noise and reverberation, torpedo detection, audio listening and classification. Based on this technology, DSIT expanded the application to include a full scale submarine tactical trainer.

Underwater Acoustic Signal Analysis system ("UASA") – DSIT's UASA system processes and analyzes all types of acoustic signals radiated by various sources and received by naval sonar systems (submarine, surface and air platforms, fixed bottom moored sonar systems, etc.).

Sonar Building Blocks – based on our sonar capabilities and development of the DDS, DSIT has developed a number of generic building blocks of sonar systems such as Signal Processing Systems and Sonar Power Amplifiers. Some customers designing and building their own sonar systems have purchased these building blocks from us. These elements are specifically tailored and optimized for sonar systems and have advantages over generic standard building blocks.

Fiber Optic Solutions

In 2012, DSIT began to leverage its acoustic signal processing capabilities for land seismic security applications and to extend its current offering by developing and integrating into its existing line of naval products, a new sensor based on advanced fiber-optic sensing technology. This new sensor will enable DSIT to grow into new business domains, including maritime and land-based perimeter security applications, pipeline leak detection and Structure Health Monitoring (SHM) of airborne vehicles such as UAVs.

In 2012, 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). The BIRD Foundation provides funding money for projects involving joint innovation and development between American and Israeli companies. Due to the suspension of USSI's operations (see Recent Developments) we are uncertain as to whether we will be able to continue the development of the PAUSS on our own. DSIT is currently examining the possibility of continuing the development of the PAUSS by teaming-up with another U.S. company with fiber optic expertise to assume the portion of the project which was to have been performed by USSI.

In addition to its underwater site protection, DSIT is exploring solutions for the perimeter fiber optic security market. In 2013, DSIT and Ramot, the technology transfer company of Tel-Aviv University, were jointly awarded a \$325,000 grant representing a 50% participation in DSIT's expenses, from MEIMAD (a collaborative program between the Israeli Ministry of Defense and the Office of the Chief Scientist ("OCS") at the Ministry of Economy, to jointly promote new ideas and new technologies that can serve both commercial applications and military needs) 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.

In December 2014, DSIT and Ramot, were jointly awarded another grant from MEIMAD. This grant is for a 24-month project (in two stages) for the joint development of a Fiber-Optic Based SHM Interrogator. This Interrogator, based on Tel-Aviv University's patented technology, will allow the use of standard communication fiber optic wires for structure health monitoring at high rates and in real-time. This new technology Interrogator will allow DSIT to penetrate the SHM market for specialized applications such as structure health monitoring of airborne structures (aircraft wings and fuselage). The total amount of the grant is approximately \$245,000, representing a 50% participation in DSIT's expenses, and is conditioned on budget availability at the OCS and achieving the project's first phase milestone (a working prototype of an Interrogator).

With a prototype of the first Interrogator, based on Dynamic Optical Frequency Domain Interferometry already showing promising results in field trials, DSIT believes that this Interrogator when developed can be used for long range perimeter security applications and for underwater passive detection of divers, swimmers and boats.

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 - DSIT specializes in Weapon/C&C Operating Consoles for unique naval and air applications, designed through synergistic interaction with the end-user. Weapon/C&C Consoles utilize Human-Machine Interface ("HMI") prototyping supported on a variety of platforms as an integral part of the HMI definition and refinement process. Weapon/C&C Console specific applications driven by HMI include signal processing and data fusion and tracking.

Computerized Vision Systems for the Semiconductor Industry - DSIT has been cooperating with global leaders of state-of-the-art semiconductor wafer inspection systems in developing cutting edge technologies to enable the semiconductor industry to detect defects in the manufacture of silicon wafers. DSIT develops and manufactures hardware and embedded software for computerized vision systems as a subcontractor. The activity is multi-disciplinary and includes digital and analog technologies, image processing and intricate logic development.

Modems, data links, navigation and telemetry systems - DSIT is working with major defense industries in Israel such as Rafael Advanced Defense Systems Ltd. and Israel Aerospace Industries Ltd., developing modems, advanced wide-band data links and telemetry and navigation systems for airborne and missile systems. DSIT is providing development and production services of hardware and embedded signal processing software with high quality control standards.

DSIT's other operations include IT activities (protocol management software for cancer patients and billing software) and outsourced consulting activities.

### **Customers and Markets**

According to a 2011 Wall Street Journal article, nearly 30% of U.S. oil production and 15% of gas production is produced from wells on the Outer Continental Shelf. Globally, some 30% of the world's oil output comes from offshore production. An enormous amount of capital investment has gone into creating this underwater energy infrastructure. This includes the oil platforms that drill, extract and temporarily store oil and gas, as well as the oil and gas wellheads, pipelines, single point mooring buoys and pumps required to transfer the product from its location to shore. While this infrastructure was built with the assumption that it would be able to weather natural disasters, much of this infrastructure comprises what is known in the military as "soft" targets from beneath the water that would not require much in the way of explosives to cause significant, and perhaps catastrophic, damage.

This vulnerability, combined with the development and proliferation of technologies such as mini-submarines which can submerge to depths of a few dozen feet making detection difficult, unmanned underwater vehicles, divers with underwater scooters, swimmer delivery vehicles as well as conventional scuba divers threaten the undersea economy with significant damage resulting from lost energy resources, damaged infrastructure and environmental degradation should an attack occur. DSIT looks to sell to potential customers in such areas that have significant underwater energy assets and infrastructure.

All of DSIT's operations (excluding product delivery, set-up and service) take place in Israel. In recent years, an increasing share of this segment's revenues were derived from outside of Israel increasing from 38% in 2009 to 73% in 2012 before decreasing to 37% in 2013. In 2014, non-Israeli revenues increased to 42%. The increase in 2014 was due primarily to the receipt of a major order in late 2013 for the supply of an advanced underwater acoustic monitoring system. We expect DSIT's non-Israel based revenues to increase again in 2015 following DSIT's recently announced order with an undisclosed navy for four Hull Mounted Sonar (HMS) systems and an Anti-Submarine Warfare (ASW) Trainer for \$15.4 million (See "Recent Developments"). DSIT continues to invest considerable efforts to penetrate Asian, European and South American markets in order to broaden its geographic sales base with respect to its sonar technology solutions. We have significant customer relationships with some of Israel's largest companies in its defense and electronics industries as well as relationships with some of the biggest Asian defense integrators. We are currently exploring several cooperation opportunities in Asia.

In 2015, we anticipate expanding our sales and marketing efforts for our entire portfolio of naval solutions including our Shield family of products - AquaShield<sup>TM</sup>, AquaShield-ER<sup>TM</sup> (Extended Range), PointShield<sup>TM</sup> - and our Mobile Acoustic range (MAR) as well as our other naval solutions. In some cases we also offer a complete solution including above-water optical and radar sensors from third-party integrators into a complete C&C system. DSIT is currently in discussions with a number of energy, commercial and governmental customers seeing an increasing awareness of potential underwater threats to coastal and offshore critical infrastructure as well as vessels, canals and intakes. DSIT is also leveraging its capability to offer HMS to navies who are building new ships.

In 2014, three customers accounted for approximately 63% of DSIT's revenues (32%, 16% and 15%). One customer represented approximately 20% (\$4.0 million) of Acorn's consolidated revenues for 2014. DSIT does not expect that this customer will provide more than 10% of Acorn's consolidated revenues in 2015. The loss of any one or more of these customers and/or the lack of a replacement project upon the completion of projects to these customers could have a material adverse effect on DSIT's operations.

### Competition

Our Energy & Security Sonar Solutions segment faces competition from several competitors, large and small, operating in worldwide markets (such as Sonardyne International Ltd. and Atlas Elektronik (both based in the United Kingdom) and the Kongsberg group of companies (based in Norway)) with substantially greater financial and

marketing resources, particularly with respect to our energy and security sonar solutions. 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. In product demonstrations to potential customers, DSIT's AquaShield<sup>TM</sup> has achieved better performance regarding detection range and automatic classification, than its main competitor. DSIT has sold its AquaShield<sup>TM</sup> DDS system to the Israeli Navy following a comprehensive review and evaluation process in which the Navy investigated competing systems and selected those of DSIT. DSIT anticipates additional orders from the Israeli Navy for additional systems. We also face competition from other competitors (such as Whitehead Sistemi Subacquei (WASS) in Italy and Ultra Electronics in the UK in the area of portable acoustic ranges.

# **Intellectual Property**

DSIT rigorously attempts to protect its proprietary know-how, proprietary technologies, processes and other intellectual property.

DSIT's systems are heavily based on software implementing advanced acoustic signal processing algorithms. The foundation of the systems and DSIT's competitive edge lies in these algorithms. DSIT's strategy is to identify these key intellectual property elements developed by us in order to protect them in a timely and effective manner, and to continually use such intellectual property to our competitive advantage in the marketplace.

We keep the detailed description of these core algorithms as proprietary information and accordingly they are not disclosed to the public or to customers. We use contractual measures such as non-disclosure agreements and special contract terms to protect this intellectual and proprietary information. It is uncommon for companies such as DSIT to rely heavily on patents, as the patent itself may disclose critical information. Nonetheless, in certain cases the benefits of patent protection can outweigh the risks. We have recently applied for two provisional patents covering our activity under MEIMAD as well as some application concepts in the area of Fiber Optic based shape sensing.

A significant portion of our know-how is protected as commercial secrets and supported through agreements with our employees, suppliers, partners and customers.

#### **Facilities**

DSIT's activities are conducted in approximately 21,000 square feet of space in the Tel Aviv metropolitan area under a lease that expires in January 2016. DSIT has an option to extend the lease for an additional three years. We believe that DSIT's premises, which include a new integration and production lab built in 2013, will be sufficient to handle any expected near-term growth.

### 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 operates from offices in the U.S. and through a distributorship in Australia and has utility customers throughout the world, including the Americas, Asia, Australia, Africa, and the United Kingdom.

During 2013, GridSense restructured its operations in both its US and Australian entities in order to improve efficiency based on GridSense's revenue mix and skills mix. Following the restructuring, GridSense's Australian operations no longer had a production line and had minimal research and development activities. During 2014, GridSense shut down its Australian offices in an effort to further reduce costs and streamline operations. GridSense

continues to sell all of its current products in Australia and the surrounding areas through a network of distributors. All current product production and development now take place at GridSense's U.S. operations facility in Sacramento.

# **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 cost-effectively identify issues on transformers from the substation to the poletop, overhead distribution and transmission lines. GridSense also provides solutions for underground line monitoring, power quality analysis, and close up inspection of energized, high voltage assets. With GridSense solutions, utilities can minimize inconveniences and productivity losses for their consumers, optimize asset utilization, and reduce the costs of identifying and rectifying network outages and disturbances. GridSense offerings include:

Transformer  $IQ^{\circledast}$  - The Transformer  $IQ^{\circledast}$  is a comprehensive, cost-effective monitoring system that monitors from the substation to the residential transformer all transformer failure parameters.

Line IQ® Systems - The Line IQ® provides real-time monitoring of events, load, voltage and temperatures with intelligent algorithms for accurate fault detection and overhead line condition monitoring.

PowerMonic<sup>TM</sup> - The PowerMonic<sup>TM</sup> range of outdoor power analyzers and analytical software provides portable, comprehensive monitoring of low-voltage circuits, including power quality profiles, transient recordings, RMS event captures, flicker, sags and swells, and remote capabilities.

HighV<sup>TM</sup> Camera - HighV<sup>TM</sup> Camera provides high-voltage inspection for energized assets to 345kV phase to phase, with one-touch still image or video capture, is Android tablet optimized for maximum functionality, and offers rapid deployment via hotstick.

Grid InSite<sup>TM</sup> - An intuitive, integrated software platform for configuring GridSense network monitoring devices, accessing their data, and turning that data into actionable, smart grid intelligence.

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.

GridSense products under current development include:

DemandIQ<sup>TM</sup> - Uses TransformerIQ<sup>®</sup> to detect overload conditions at the poletop transformer and performs direct load shedding within the household.

#### **Customers and Markets**

Currently, GridSense has over 15 ongoing major pilot programs, each of which we believe could have a roll-out potential in excess of \$500,000. Pilot programs consist of deployment of one or more products on a test basis. Such pilot programs generally last between three and eighteen months. We have no assurance that such pilot programs will ultimately result in large scale roll-out programs.

In 2014, three customers (two serviced from GridSense's U.S. operations and one from Australia) accounted for approximately 39% (approximately \$0.6 million, \$0.6 million and \$0.5 million) of GridSense's total revenues. Two of these customers accounted for approximately 40% of GridSense's U.S. based revenues while the Australian customer accounted for approximately 37% of its revenues. The balance of GridSense's revenues in 2014 were generally spread across a broad base of customers. The loss of one or more of the company's top customers could have a material effect on the overall sales of GridSense. To mitigate this risk, the company is aggressively working to further expand its sales pipeline and supporting a larger base of customers.

### Competition

The industry in which GridSense operates is characterized by intense competition from both large, established companies as well as smaller companies with specialized offerings. Such competitors include General Electric, Siemens, Qualitrol Company LLC, PowerSense and Schweitzer Engineering Laboratories. To avoid direct competition with larger, more established companies, GridSense focuses on niches where it can offer a differentiated product based on superior cost and performance. In the niche market, GridSense competes against Power Delivery Product, Sentient and Cooper. These companies have varying degrees of similar products at comparable price points. As GridSense grows and penetrates markets where larger companies have been established, it may experience more competition. GridSense is in a field where electronics and software/firmware dominate. This fast changing area may generate new methods of detecting and monitoring disturbances. GridSense closely monitors trends and changes in technologies and customer demand that could adversely impact its competitiveness and overall success.

# **Intellectual Property**

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 two U.S. patents, and has one patent 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 generally 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.

#### **Production Facilities and Locations**

GridSense's facilities are located in West Sacramento, CA. Its leased facility in West Sacramento covers approximately 11,900 square feet and is used for production, development and administrative activities. GridSense management believes its facilities are sufficient to meet the company's needs for the foreseeable future. GridSense has successfully outsourced many production processes to external parties while maintaining strict quality assurance standards including the internal testing of all finished goods. The transfer of production to accredited contract manufacturers has reduced the Company's fixed manufacturing overhead and freed up resources to focus on quality assurance and service. The lease in West Sacramento expires in February 2016.

#### OMNIMETRIX - M2M CRITICAL ASSET MONITORING & CONTROL and PIPELINE MONITORING

OmniMetrix is a Georgia limited liability company established in 1998 based in Buford, Georgia that develops and markets M2M (machine-to-machine) wireless remote monitoring and control systems and services for multiple markets in the Internet of Things ecosystem: critical assets (including stand-by power generators, pumps, pumpjacks, light towers, turbines, compressors, as well as other oilfield equipment) as well as corrosion protection for the pipeline industry (gas utilities and pipeline companies). Acorn owns 100% of OmniMetrix.

### **Products & Services**

In the Power Generation ("PG") market of the M2M segment, OmniMetrix sells a line of devices and services built on its baseline G8500 wireless remote monitor. This device is broadly applicable across all brands and models of emergency power generators and industrial engines. The G8500 product family connects directly to the engine's control panel, and captures all data flowing through the control panel. As a result, the product provides the ability to identify whether an emergency generator is capable of operating as expected. In 2012, OmniMetrix designed and gained approval from PTCRB, the certification forum of North American cellular operators, and AT&T for a new 4G data radio module, replacing the 2G technology used since 2007. This new device includes GPS functionality and data storage at the device for the first time, enabling OmniMetrix to bring a mobile asset tracking functionality into the market, with primary focus on mobile generators and related equipment. OmniMetrix's G8700 product line is designed specifically for this mobile market segment, and offers robust functionality and ultra-low power consumption, a critical feature for mobile equipment, particularly in the rental equipment market for frack drilling sites. OmniMetrix currently works with several customers in this market across several shale deposit geographies in the United States and sees this as a key growth market for its business.

In the PM market, OmniMetrix offers two primary product lines, Rectifier Monitors (RMs) and Computer Automated Test Stations (CATS). Both of these products are used to monitor cathodic protection systems, 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**

At its core, the OmniMetrix PG product can remotely monitor and control any industrial engine application, which includes standby generators, compressors, turbines, pumps, and other equipment. Early in the company's history, a strategic decision was made to focus primarily on the standby power generation market. Over the past 12 months, the company has begun to expand its focus to add several additional applications where it sees demand.

Following the advent of the Internet of Things and "smart home" ecosystems, whereby multiple sensing and monitoring devices are aggregated into one simple dashboard for customers, many large companies, including Google, Comcast, Verizon, and AT&T are entering this market and offering similar platforms. Standby generator monitoring is rapidly becoming part of this ecosystem.

As OmniMetrix can monitor and control all major brands of standby generators, it is uniquely positioned to compete in this market. OmniMetrix is in discussions with several companies in this market to explore strategic partnerships.

In the first stages of OmniMetrix's PG product and market development, relatively unsophisticated generator controls and early generation cellular and satellite communication processes limited the applications to alarm delivery. Customers were notified that some event had taken place after the fact. There was no diagnostic data opportunity, but service organizations could at best practice a proactive service approach.

With the advent of second generation cellular systems, and newer computerized engine controls, OmniMetrix migrated to a design point of collecting large amounts of performance data from the remote machinery, allowing service organizations to perform diagnostics on remote equipment before dispatching service. This was the beginning of the OmniMetrix SmartService<sup>TM</sup> Program. It allowed the service organization to put the right person in the right truck with the right parts to effect a one-trip solution. At this phase service organizations could be efficient, as well as proactive, in their operations. Customers have provided OmniMetrix feedback telling how customer service teams are able to work "smarter" and more efficiently by going directing to sites with problems, thus increasing the value of their businesses.

OmniMetrix is now in its third phase of evolution, maturing the high performance data collection design point into the first provider offering of automated prognostic solutions. As most generator failures are the result of consumables, and as those consumables can be monitored, the consumption trends can be extrapolated into predictions of the most common failure modes.

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 new industrial generators and 200,000 new 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 potential 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 *SmartService*<sup>TM</sup> 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 as a result. While some larger dealers embraced OmniMetrix's business model (a recurring revenue model), it did not universally resonate within the dealer marketplace and the rate of anticipated adoption (and thus sales of monitors and monitoring

subscriptions) was far slower than anticipated. 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. We have also increased our marketing efforts to end-users in an effort to increase demand for our services. Whether these efforts will prove to be successful cannot be determined at this time.

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 begun to highlight this value in our marketing efforts to our customers. We currently provide 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 provide sufficient margins and otherwise be effective cannot be determined.

Within the PM 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.

In 2014, no one customer of OmniMetrix provided more than 8% of its revenue. OmniMetrix has successfully been able to mitigate the risk of customer dependency by increasing its penetration rate, its sales pipeline and supporting a larger base of customers. OmniMetrix expects to continue to expand its base of customers in 2015.

# Competition

OmniMetrix is a vertical market company, deeply focused on product and service designs for a complete end-to-end program for its customers. Having been the first (1998) provider of wireless remote monitoring systems for standby generators and pipeline corrosion programs, the company has had the opportunity to mature its offering to a level not offered by others who might like to compete in these two segments. This long experience working with key brand project partners over the years has resulted in product offerings that other competitors simply cannot match.

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. Among these are companies such as Ayantra, FleetZOOM, Gen-Tracker, and PointGuard. PointGuard is owned by a Caterpillar dealer, and focuses its business on the Caterpillar channel.

- (1) Today it offers an array of diagnostic capabilities. The other three competitors operate in the reactive "failure notification" mode described in the early stages of the OmniMetrix business model. In the past, those competitors positioned themselves at a lower performance, lower price quadrant of the market. Following its acquisition by Acorn in 2012, OmniMetrix began an aggressive push into lower price offerings, while providing significantly higher performance than the competition.
  - OEMs such as generator manufacturers or generator controls manufacturers have begun offering customer connectivity to their machinery. They offer a current generation connectivity replacing telephone dial-up modems that had been used in the past. Their offerings are limited to their own brands, so they do not fit into a broad application such as does the OmniMetrix *SmartService<sup>TM</sup>*, supporting service organizations that service all brands.
- (2) They are also generally designed for the machine owners' use, in a reactive application. Deep Sea Electronics offers wireless devices to allow remote access to generators with some of their controls. Similarly, Cummins Power Generation offers a device that allows their machine owners to browse directly into the generator. This device is only valid for certain types of their generators.

We believe OmniMetrix has a well-established and well-defended position in the high performance PG monitoring segment, due to its long history and numerous industry partner projects. The company is currently applying an aggressive sales effort into both the market segment requiring less technology and lower price (including the extremely large residential generator market) as well as developing more sophisticated, diagnostic products and custom solutions for commercial clientele.

Within the PM marketplace, there are no OEM competitors, but there are several independent monitoring companies similar to OmniMetrix such as Abriox, Elecsys, and American Innovations. We believe that OmniMetrix systems provide greater functionality that these competitors, though those competitors are much larger and have greater resources enabling better channel penetration than OmniMetrix can accomplish.

### **Intellectual Property**

OmniMetrix has always focused on being the technology leader in its markets, and as a result has created many "industry firsts". Initially, the company only pursued patents on the most valuable processes and systems and otherwise made public disclosure of many processes to prevent others from making later patent claims on those items. Nonetheless, OmniMetrix has two issued patents and is evaluating the benefit of completing additional applications currently in process. Furthermore, the company has agreements with its employees and consultants which establish certain non-disclosure and in some cases, non-compete, requirements. OmniMetrix continually evaluates whether and how to best protect its intellectual property, but there can be no assurance that its efforts will be successful in all cases.

#### **Facilities**

OmniMetrix's activities are currently conducted in approximately 21,000 square feet of office and production space in the Hamilton Mill Business Park located in Buford, Georgia under a lease that expires on December 31, 2019. OmniMetrix is currently utilizing only a portion of these leased facilities and has previously taken an impairment charge with respect to expected underutilization of leasehold improvements in these facilities. OmniMetrix is attempting to sub-lease a portion of these facilities. It cannot be determined at this time whether OmniMetrix will be successful in its attempts to sub-lease the facilities.

#### **BACKLOG**

As of December 31, 2014, our backlog of work to be completed and the amounts expected to be completed in 2015 were as follows (amounts in millions of U.S. dollars):

			Ar	nount
	Backlog at		expected	
	December		to be	
	31, 2014		completed	
			in	2015
DSIT Solutions*	\$	12.0	\$	6.7
GridSense		0.8		0.8
OmniMetrix		1.9		1.4
Total	\$	14.7	\$	8.9

<sup>\*</sup> See Recent Developments for new orders.

### RESEARCH AND DEVELOPMENT EXPENSE, NET

Research and development expense recorded for the years ended December 31 2013 and 2014 for each of our consolidated subsidiaries in continuing operations (see Recent Developments) is as follows (amounts in thousands of U.S. dollars):

Years ended
December 31,
2013 2014

DSIT \$1,511 \$1,002

GridSense 2,118 1,096

OmniMetrix 647 616

Total \$4,276 \$2,714

Research and development expense recorded is net of participation by third parties in the research and development costs as well as credits arising from qualifying research and experimental development expenditures.

### **EMPLOYEES**

At December 31, 2014, we employed a total of 163 employees, including 138 full-time employees. We consider our relationship with our employees to be satisfactory.

A breakdown of our full-time employees by geographic location can be seen below:

	Full-time employee count at December 31,			
	2014	-		
	U.S.	Israel	Total	
<b>DSIT Solutions</b>		58	58	
GridSense	22		22	
OmniMetrix	21		21	
USSI*	35		35	
Acorn	2		2	
Total	80	58	138	

<sup>\*</sup> USSI suspended operations in March 2015. See Recent Developments.

A breakdown of our full-time employees by activity can be seen below:

	Full-time employee count at December					
	31, 2	2014				
	Prod	uction,				
	Engi	neering Marketing	Management,			
	and	_	Administrative	Total		
	Tech	and Sales	and Finance			
	Supp	ort				
<b>DSIT Solutions</b>	45	3	10	58		
GridSense	15	1	6	22		
OmniMetrix	11	6	4	21		
USSI*	28	2	5	35		
Acorn	_	_	2	2		
Total	99	12	27	138		

<sup>\*</sup> USSI suspended operations in March 2015. See Recent Developments.

We have no collective bargaining agreements with any of our employees. However, with regard to our Israeli activities, certain provisions of the collective bargaining agreements between the Israeli Histadrut (General Federation of Labor in Israel) and the Israeli Coordination Bureau of Economic Organizations (including the Industrialists Association) are applicable by order of the Israeli Ministry of Labor. These provisions mainly concern the length of

the workday, contributions to a pension fund, insurance for work-related accidents, procedures for dismissing employees, determination of severance pay and other conditions of employment. We generally provide our Israeli employees with benefits and working conditions beyond the required minimums. Israeli law generally requires severance pay upon the retirement or death of an employee or termination of employment without due cause. Furthermore, Israeli employees and employers are required to pay specified amounts to the National Insurance Institute, which administers Israel's social security programs. The payments to the National Insurance Institute include health tax and are approximately 5.5% of wages (up to a specified amount), of which the employee contributes approximately 70% and the employer approximately 30%.

#### ADDITIONAL FINANCIAL INFORMATION

For additional financial information regarding our operating segments, foreign and domestic operations and sales, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 18 to our Consolidated Financial Statements included in this Annual Report.

### **AVAILABLE INFORMATION**

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the "SEC"). These filings are available to the public over the internet at the SEC's website at http://www.sec.gov. You may also read and copy any document we file at the SEC's public reference room located at 100 F Street, NE, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room.

Our website can be found at http://www.acornenergy.com. We make available free of charge on or through our website, access to our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports as soon as reasonably practicable after such material is electronically filed, or furnished, to the SEC. Our website also includes our Code of Business Conduct and Ethics, and our Board of Directors' Committee Charters for the Audit, Compensation and Nominating Committees.

#### ITEM 1A. RISK FACTORS

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.

#### **GENERAL FACTORS**

We have a history of operating losses and have used increasing amounts of cash for operations and to fund our acquisitions and investments.

In 2013 and 2014, our companies experienced delays in anticipated orders, varying levels of lower than planned sales volume and technical challenges that collectively and materially have negatively impacted and may continue to negatively impact our financial performance in the future. We have a history of operating losses, and have used significant amounts of cash to fund our operating activities over the years. In 2013 and 2014, we had operating losses of \$21.3 million and \$10.2 million, respectively plus losses from discontinued operations of \$9.7 million and \$19.1 million, respectively. Cash used in operating activities of continuing operations in 2013 and 2014 was \$10.9 million and \$7.1 million, respectively plus an additional \$6.9 million and \$11.1 million used in discontinued operations in 2013 and 2014.

As of December 31, 2014, we had a total of approximately \$4.7 million in corporate cash and cash equivalents and \$2.9 million at the end of February 2015. We do not presently anticipate pursuing new acquisitions and investment opportunities unless they support our existing businesses, but we do expect to continue to support the financing needs of our subsidiaries to the extent that we can. While we plan for both GridSense and OmniMetrix to be net cash flow neutral in 2016, these companies will need support for their financing needs in 2015. In 2014, we lent GridSense and OmniMetrix approximately \$1,340,000 and \$850,000, respectively, net of repayments. We expect that in 2015, DSIT will generate significant amounts of cash which will be available to support the corporate cash needs of Acorn and its subsidiaries; however, there can be no assurance that DSIT will be able to do so to the extent necessary and it is unknown for how long DSIT will be able to provide such support.

Accordingly, if our current cash plus any cash generated from operations and borrowing from available lines of credit, cannot provide sufficient liquidity to finance the operating activities of Acorn and the operations of our operating subsidiaries for the foreseeable future or the next 12 months in particular, we can either access the capital markets, divest from one or more of our assets or find a strategic partner for one or more of our businesses. There can be no assurance however that we will be able to exercise any of these options to improve our liquidity.

We do not expect to pay dividends on shares of our common stock for the foreseeable future. Investors 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 business.

Our success is largely dependent on the skills, experience and efforts of our senior management team, including John Moore, Joseph Musanti, Benny Sela, Walter Czarnecki and Michael Barth. 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.

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 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-free 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 were required to conduct specified due diligence activities for the

2013 calendar year, and provided our first report in June 2014.

Based on guidance released by the Securities and Exchange Commission, Acorn determined that OmniMetrix – whose only business is that of a service provider – is not subject to the required conflicts minerals inquiry. However, Acorn further determined that for its other subsidiaries that conflict minerals are necessary for the functionality of many of our products, and have taken, and will continue to undertake, prescribed steps to determine their origin.

In our June 2014 disclosure, we reported that the origin of the conflict minerals cannot be determined with any certainty once the raw ores are smelted, refined and converted to ingots, bullion or other conflict mineral-containing derivatives.

We anticipate that continuing to fulfill 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 costs companies like ours as much as several hundreds of thousands of dollars per year. Although our costs have been (and we expect will continue to 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 unless they support our existing businesses, 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;

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. Any legal proceedings 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.

We may incur unexpected shutdown costs in connection with the suspension of operations of our USSI subsidiary or other unexpected liabilities related to USSI that will survive its shutdown.

We have written off substantially all of the assets of our USSI subsidiary, and do not anticipate any significant additional shutdown costs in connection with the suspension of USSI's operations. In addition, we are neither aware of nor anticipate any other liabilities or claims related to USSI that will survive its shutdown. Should any unexpected costs, claims or liabilities related to USSI arise, however, it may negatively impact our cash position.

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. During the year ended December 31, 2014, we recorded an impairment of \$1.8 million of goodwill associated with our GridSense segment as well as impairments of \$1.4 million of goodwill and \$2.0 million and intangibles associated with our USSI subsidiary. During the year ended December 31, 2013, we recorded impairments of \$1.9 million of goodwill and \$4.8 million of intangibles associated with our OmniMetrix subsidiary. Any additional impairment of the value of recorded goodwill or other intangibles at any of our other subsidiaries will result in an additional charge against earnings which could materially adversely affect our reported results of operations and financial position in future periods.

We have reported material weaknesses in internal controls over financial reporting as of December 31, 2014 and we cannot assure you that additional material weaknesses will not be identified in the future or that we can effectively remediate our reported weaknesses. 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.

As a result, we cannot assure you that additional significant deficiencies or material weaknesses in our internal control over financial reporting will not be identified in the future or that we can effectively remediate our reported weaknesses. 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. Our GridSense subsidiary does business in California, which is known to experience earthquake activity. Insurance coverage for earthquake-related damage is expensive and currently, GridSense does not maintain an earthquake insurance policy.

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. 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.

The timing and amount of revenue generated both from new customer orders and backlog fulfillment are subject to substantial volatility

Recognition of revenue from sales to certain customers can be subject to delays beyond our control, such as timing of the receipt of component parts, change orders issued by the customer and delays in customers' scheduled installation dates (primarily at GridSense and DSIT), all of which we generally accommodate at no cost to the customer as part of our marketing efforts to them for repeat business.

### Concentrations of credit risk

Financial instruments, which potentially subject us to concentrations of credit risk, consist principally of cash and cash equivalents, restricted deposits accounts receivable and unbilled revenues. The Company's cash, cash equivalents and restricted cash deposits were deposited primarily with U.S. and Israeli banks and other financial institutions and amounted to \$5.9 million from continuing operations at December 31, 2014. The Company uses major banks and brokerage firms to invest its excess cash, primarily in money market funds. The counterparties to our restricted deposits are two major Israeli banks. The Company does not believe there is significant risk of non-performance by these counterparties. Related credit risk would result from a default by the financial institutions or issuers of investments to the extent of the recorded carrying value of these assets. Approximately 35% of the accounts receivable at December 31, 2014, was due from two customers who pays their receivables over usual credit periods. Credit risk with respect to the balance of trade receivables is generally diversified due to the number of entities comprising the Company's customer base. Approximately 64% of the balance in unbilled revenue at December 31, 2014 was due from three customers that when billed, pay their trade receivables over usual credit periods. Credit risk with respect to the remaining 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 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.

We recognize revenues on construction contracts using the percentage-of-completion method of accounting. Under the percentage-of-completion method of accounting, we record revenue as work on the contract progresses. The cumulative amount of revenues recorded on a contract at a specified point in time is that percentage of total estimated revenues that man-months incurred to date bear to estimated man-months. Accordingly, contract revenues and total cost estimates are reviewed and revised as the work progresses. Adjustments are reflected in contract revenues in the period when such estimates are revised. Estimates are based on management's reasonable assumptions and experience, but are only estimates. Variation of actual results from assumptions on an unusually large project or on a number of average size projects could be material. We are also required to immediately recognize the full amount of the estimated loss on a contract when estimates indicate such a loss. Such adjustments and accrued losses could result in reduced profitability, which would negatively impact our cash flow from operations.

Providing liquidity support to Acorn could impact on DSIT's ability to deliver its products or sustain its growth.

DSIT expects to generate significant cash flows from operations as it collects on significant balances of receivables and unbilled revenues in the coming year. For the near future, Acorn will be relying in part on DSIT's cash flows to help support its operations and the operations of its GridSense and OmniMetrix subsidiaries. It is uncertain exactly to what extent Acorn will require DSIT to provide support and over what period of time and whether such support coming from DSIT is sustainable in the long-term. In addition, it is uncertain as to how DSIT's liquidity support for Acorn will impact on DSIT's ability to develop new products or its ability to deliver its products in a timely manner.

Conditions in Israel may affect our operations.

Political, economic and military conditions in Israel directly affect our operations. Since the establishment of the State of Israel, a number of armed conflicts have taken place between Israel and its Arab neighbors. An ongoing state of hostility, varying in degree and intensity has led to security and economic problems for Israel. For a number of years there have been continuing hostilities between Israel and the Palestinians including with the Islamic movement Hamas in the Gaza Strip, which have adversely affected the peace process and at times have negatively influenced Israel's economy as well as its relationship with several other countries. Israel also faces threats from Hezbollah militants in Lebanon, from the government of Iran and other potential threats from neighboring countries, some of whom have recently undergone or are undergoing significant political changes, such as Egypt and Syria. In recent years there has also been a change in the relations between Israel and Turkey. These political, economic and military conditions in Israel could have a material adverse effect on our business, financial condition, results of operations and future growth. 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. At times, 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 2014 the U.S. dollar strengthened in relation to the NIS by 12.0%.

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 2014, approximately 63% of DSIT's total revenues were concentrated in three customers. These customers are expected to continue to make up a significant portion of DSIT's revenues and cash flow in 2015. While DSIT does expect future follow on orders from each of these customers, the timing and amounts cannot be predicted. 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.

Reduction in Israeli government spending or changes in priorities for defense products may adversely affect our earnings.

The Israeli Ministry of Defense is a significant customer of DSIT. The Israeli government may reduce its expenditures for defense items or change its defense priorities in the coming years. In addition, the Israeli defense budget may be adversely affected by any reductions in U.S. foreign military assistance. There is no assurance that our programs will not be affected in the future if there is a reduction in Israeli government defense spending for our programs or a change in priorities to products other than ours.

Political relations could limit our ability to sell or buy internationally.

We could be adversely affected by the interruption or reduction of trade between Israel and its trading partners. Some countries, companies and organizations continue to participate in a boycott of Israeli firms and others doing business with Israel or with Israeli companies. Foreign government defense export policies towards Israel could also make it more difficult for us to obtain the export authorizations necessary for our activities. Also, over the past several years there have been calls in Europe and elsewhere to reduce trade with Israel. In addition, the Israeli defense budget may be adversely affected by reductions in U.S. foreign military assistance. There can be no assurance that restrictive laws, policies or practices directed towards Israel or Israeli businesses will not have an adverse impact on our business.

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 December 31, 2014, DSIT had approximately \$3.8 million of performance and bank guarantees outstanding. In addition, DSIT had on deposit at two Israeli banks approximately \$1.1 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 invest in other emerging ventures or take advantage of opportunities available to it in a timely manner.

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 Naval Solutions products. 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.

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. As a result of the recent suspension of operations at USSI (see Recent Developments), continued work on the joint DSIT-USSI project (known as PAUSS) has also stopped. DSIT has decided 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 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. It is unclear at this time how the suspension of operations at USSI will impact BIRD funding of DSIT PAUSS costs or whether future BIRD funding on the development of PAUSS may be at risk.

In September 2013, DSIT and Ramot, the technology transfer company of Tel-Aviv University, were jointly awarded a grant from MEIMAD melimad provides funding money for projects involving joint innovation and development between Israeli industrial companies and universities. This grant is for a 30-month project (in two stages) for the joint development of a next generation Fiber-Optic Based Perimeter Security System Interrogator. The total amount of the grant is approximately \$325,000 representing a 50% participation in DSIT's expenses, and is conditioned on budget availability at the Office of the Chief Scientist ("OCS") in the Ministry of the Economy in Israel.

In July 2014, DSIT and Ramot were jointly awarded another grant from MEIMAD. This grant is for a 24-month project (in two stages) for the development of a fiber optic sensing system to be used in structural health monitoring of airborne structures (such as planes and Unmanned Aerial Vehicles (UAV's)). The total amount of the grant is approximately NIS 950,000 (currently approximately \$245,000) representing a 50% participation in DSIT's expenses.

Both grants are conditioned on budget availability at the Office of the Chief Scientist ("OCS") in the Ministry of the Economy in Israel and achieving the project's first milestones. If OCS funds are unavailable and/or the projects' milestones are not met on a timely basis, DSIT may not be able to access some or all of the grant funding.

### RISKS RELATED TO GRIDSENSE

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

GridSense incurred net losses each year since our acquisition of them in 2010. While GridSense has reduced its losses in 2014 to \$2.7 million (excluding the non-cash \$1.8 million charge for goodwill impairment) compared to 2013's loss of \$4.3 million, it has still not been able to achieve break-even for 2014; 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.

*GridSense* will need additional financing to grow and finance its operations.

While we do not plan to invest additional equity into GridSense, it does need continued working capital support. During 2014, Acorn continued to provide funds for GridSense's working capital needs. During 2014, Acorn lent \$1,340,000 net of repayments. GridSense will continue to need funds in 2015.

In July 2014, GridSense signed an amendment to its Loan and Security Agreement with a bank extending the expiration date of its revolving line-of-credit of \$1.5 million to June 29, 2015. In addition, the bank agreed to allow GridSense to borrow against 80% of certain accounts receivable balances up to an additional \$750,000 for a period of one year (to July 16, 2015). Acorn has guaranteed to the bank amounts outstanding under the line-of-credit and is subject to compliance with financial covenants under its guaranty. Acorn is not currently in compliance with such covenants, and is currently negotiating with the bank regarding terms of repayment of GridSense's outstanding debt under the line-of-credit.

We have no assurance whether and to what extent GridSense will have access to the entire additional \$750,000 facility as it is only available against certain accounts receivable. It is possible that GridSense will require working capital support beyond its bank facility to finance its operations as it works to grow its revenues.

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.

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.

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 38% and 32% for the years ended December 31, 2014 and 2013, respectively). 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 negatively impact GridSense's results from its sales through its Australian distributors.

GridSense no longer has operations in Australia following the closing of its office in 2014. It does still have residual costs associated with the closure of the office (professional fees) and still sells its products through Australian distributors. Such sales are denominated and collected in Australian dollars while the costs associated with such sales are U.S. dollar based. Such residual costs and sales are subject to the volatility of the Australian dollar vis-à-vis the U.S. dollar. In 2013, the U.S. dollar strengthened by 13.8%. In 2014, the U.S. dollar strengthened by an additional 8.3%. 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.

Limited Protection of 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 two US patents, and has one patent 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 net losses of \$2.6 million, \$11.5 million (such loss included impairments and restructuring charges of \$7.5 million) and \$1.7 million in 2012 since our acquisition, 2013 and 2014, respectively. OmniMetrix's cash used in operations was \$2.2 million, \$4.2 million and \$1.0 million, respectively, during those periods. While OmniMetrix has reduced its loss and cash used in operations in 2014, 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.

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 2013 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 non-renewal 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 \$14.0 million and lent \$1.55 million (through December 2014) to OmniMetrix 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. OmniMetrix will continue to need funds in 2015. 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.

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 CaP 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 PM 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.

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.

### RISKS RELATED TO OUR SECURITIES

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 2014, our common stock closed at prices as low as \$0.68 and as high as \$4.50 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.

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 March 23, 2015, 26,475,591 shares of our common stock were issued and outstanding. As of that date we had 2,642,423 warrants outstanding and exercisable with a weighted average exercise price of \$1.50 and 1,198,570 options outstanding and exercisable with a weighted average exercise price of \$5.25 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 March 16, 2015, 1,264,012 options are outstanding, but have not yet vested and are not yet exercisable.

Substantially all of our currently outstanding shares and shares issuable under our outstanding options and warrants are or would be freely tradable.

We may have to offer additional securities for sale in the near future.

While we raised \$4.0 million of proceeds (net of transaction costs) in November 2014 and expect DSIT to have sufficient cash to support Acorn and its GridSense and OmniMetrix subsidiaries in the near future, we may ultimately not have sufficient cash to allow us to execute our plans and the occurrence of one or more other unanticipated events may require us to make significant expenditures. Accordingly, we may need to raise additional amounts to finance our operations. If we were to do so by selling shares of our common stock and/or other securities convertible into shares of our common stock, current investors will incur additional dilution in the value of their shares.

We may be unable to raise capital by offering shares of our common stock because we do not currently have enough authorized shares available for such a transaction.

Under our Certificate of Incorporation, we currently have only 3,524,409 authorized and unissued shares of common stock that would be available for offering in a capital-raising transaction. This number of shares would not be sufficient for raising a significant amount of capital by means of an offering of shares. In order to increase the number of authorized shares of common stock, our Certificate of Incorporation would need to be amended, which may only be done by the vote of our stockholders. Calling a meeting of our stockholders involves a significant amount of time and expense and, in any event, should such a meeting be called for the purpose of increasing the number of authorized shares of common stock, there can be no assurance that our stockholders would vote in favor of such a proposal. The fact that we do not currently have enough authorized shares available for a capital-raising transaction may make us dependent on alternative means of raising capital in order to continue our operations, and there can be no assurance that such alternative means may be available to us on acceptable terms or at all.

Our common stock may be delisted from Nasdaq, which may make it more difficult for you to sell your shares.

In January 2015, we received a letter from the Nasdaq Listings Qualification Staff stating that we are not in compliance with the continued listing requirements of The Nasdaq Global Market because the bid price of our common stock had closed below the minimum \$1.00 per share requirement for 30 consecutive business days. We have been provided a period of 180 calendar days, or until July 13, 2015, to regain compliance with the minimum bid price rule. If at any time before July 13, 2015, the bid price of our common stock closes at \$1.00 per share or higher for a period determined by Nasdaq (which shall be a minimum of 10 consecutive business days), Nasdaq will provide us with written notification that we are in compliance with the rule.

In the event we do not regain compliance with the rule, we may be eligible for an additional 180-day cure period. To qualify, we must submit, no later than the expiration date, an application to transfer the listing of our securities from the Nasdaq Global Market to the Nasdaq Capital Market. We would be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the bid price requirement, and would need to provide written notice of our intention to cure the deficiency during the second compliance period by effecting a reverse stock split if necessary. As part of its review process, the Staff would make a determination of whether it believes we would be able to cure this deficiency. Should the Staff conclude that we will not be able to cure the deficiency, the Staff would provide notice that our securities will be subject to delisting. We would have the right to appeal to a Nasdaq Hearings Panel any determination to delist our securities. Our securities would remain listed on Nasdaq until the completion of this appeal process.

Delisting of our common stock by Nasdaq would adversely affect the market price and liquidity of our common stock, your ability to sell your shares of our common stock and our ability to raise capital.

### ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

### **ITEM 2.PROPERTIES**

Our corporate activities are conducted in approximately 1,300 square feet of office space in Wilmington, Delaware under a lease that expires in January 2016. The lease provides for annual rent of approximately \$20,900. We have an option to extend the term for an additional year with an annual rent of approximately \$21,500.

Our DSIT subsidiary's activities are conducted in approximately 21,000 square feet of space in the Tel Aviv, Israel metropolitan area under a lease that expires in January 2016. DSIT has an option to extend the lease for an additional three years. The current annual rent is approximately \$285,000.

GridSense operates in West Sacramento, CA. GridSense's office is approximately 11,900 square feet and its annual rent is approximately \$120,000. The lease agreement expires in February 2016. The annual rent is approximately \$40,000 and is subject to annual increases of 4% per year.

OmniMetrix's activities are currently conducted in approximately 21,000 square feet of office and production space in the Hamilton Mill Business Park located in Buford, Georgia under a lease that expires on December 31, 2019. The lease provides for annual rents ranging from approximately \$97,000 in 2014 to \$109,000 in 2019. OmniMetrix is currently utilizing only a portion of these leased facilities and has taken an impairment charge in connection with its restructuring in 2013 with respect to expected underutilization of leasehold improvements in these facilities. OmniMetrix is attempting to sub-lease a portion of these facilities. It cannot be determined at this time whether OmniMetrix will be successful in its attempts to sub-lease the facilities.

## ITEM 3.LEGAL PROCEEDINGS

None.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

## **PART II**

# ITEM MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS 5. AND ISSUER PURCHASES OF EQUITY SECURITIES

### **Market Information**

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
2013:		
First Quarter	\$8.39	\$6.16
Second Quarter	9.24	6.35
Third Quarter	9.90	5.75
Fourth Quarter	6.08	2.85
2014:		
First Quarter	\$4.60	\$3.02
Second Quarter	3.49	1.35
Third Quarter	2.86	1.51
Fourth Quarter	1.59	0.65

As of March 24, 2015, the last reported sales price of our common stock on the Nasdaq Global Market was \$0.57, there were 109 record holders of our common stock and we estimate that there were approximately 5,900 beneficial owners of our common stock.

## **Dividends**

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

Record Dates Payment Dates Per Share

Year ended December 31, 2013

February 20, 2013 March 4, 2013 \$0.035 Total \$0.035

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.

In August 2012, we adopted a Dividend Reinvestment Plan ("DRIP"). We offered up to 600,000 shares of our common stock for purchase under the DRIP. The DRIP provided participants the ability to invest all or a portion of cash dividends on their Acorn shares in additional shares of the Company's common stock. During 2013 we issued shares under the DRIP directly at a 5% discount from the market price. The DRIP was administered by the Company's stock transfer agent. During the period from August 2012 when we adopted the DRIP through March 2013 when we suspended dividend payments, we issued 41,710 shares of common stock under the DRIP. The DRIP is no longer active.

# ITEM MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### RECENT DEVELOPMENTS

### **Suspension of USSI operations**

In March 2015, we announced that we had stopped funding our USSI subsidiary and that USSI had suspended all operations and terminated almost all of its employees. USSI intends to sell its assets and is exploring ways to maximize value for its creditors and other stakeholders, expecting that most of the proceeds from any sale of its assets will be used to pay creditors. It is uncertain whether there will be any proceeds available to Acorn or other USSI shareholders. We recorded write-offs on our 2014 consolidated financial statements of substantially all of the assets of USSI, including approximately \$4.9 million in inventory, \$3.4 million in goodwill and intangibles and \$1.0 million in fixed assets.

### **DSIT** orders

In late 2014 and in the first quarter of 2015, DSIT received over \$19 million of new orders. The bulk of this amount (\$15.4 million) was related to an order for four Hull Mounted Sonar (HMS) systems and an Anti-Submarine Warfare (ASW) Trainer for an undisclosed navy. The HMS systems are planned to be delivered within a period of three years while the ASW Trainer is planned to be delivered in 2015. In addition, DSIT received a \$2.2 million order from a returning customer (another undisclosed navy) as well as several follow-on orders with a total value of \$1.6 million for development and production from a number of its customers in Israel. The projects involve development of both hardware and embedded software.

### Non-compliance with financial covenant

Acorn is not in compliance with the financial covenants under its guaranty of GridSense's line-of-credit. As a result of this event of default, the debt of \$1,480,000 is due on the bank's demand and we are currently negotiating with the bank regarding terms of repayment.

### Notice of failure to satisfy a listing rule

On January 13, 2015, we received a letter from the Nasdaq Listings Qualification Staff stating that we are not in compliance with the continued listing requirements of The Nasdaq Global Market because the bid price of our common stock had closed below the minimum \$1.00 per share requirement for 30 consecutive business days.

In accordance with Nasdaq rules, we were provided a period of 180 calendar days, or until July 13, 2015, to regain compliance. We will regain compliance if at any time before July 13, 2015, the bid price of our common stock closes at \$1.00 per share or more for a minimum of 10 consecutive business days. In the event we do not regain compliance, we may be eligible for an additional 180-days if we drop our listing down to the Nasdaq Capital Market.

### OVERVIEW AND TREND INFORMATION

The following discussion includes statements that are forward-looking in nature. Whether such statements ultimately prove to be accurate depends upon a variety of factors that may affect our business and operations. Certain of these factors are discussed in "Item 1A. Risk Factors."

We operate in three reportable segments: Energy & Security Sonar Solutions (through our DSIT subsidiary), Smart Grid Distribution Automation (through our GridSense subsidiaries) and Machine-to-Machine Critical Asset Monitoring & Control ("M2M") (formerly Power Generation Monitoring through our OmniMetrix subsidiary) In addition, our "Other" segment represents certain IT activities (protocol management software for cancer patients and billing software) and outsourced consulting activities at DSIT as well as Cathodic Protection activities in our OmniMetrix subsidiary.

In previous years, we reported USSI's activities in our Oil and Gas Sensor Systems segment which developed and produced fiber optic sensing systems for the energy and security markets. The operation of USSI have been suspended (see Recent Developments) and accordingly are reflected as discontinued operations.

The following analysis should be read together with the segment information provided in Note 18 to our Consolidated Financial Statements included in this report.

**DSIT Solutions** 

Revenue in our DSIT subsidiary decreased by 6%, from \$13.1 million in 2013 to \$12.3 million in 2014. The decrease was due to decreased revenues in both DSIT's Energy & Security Sonar Solutions activities (from \$11.8 million in 2013 to \$11.2 million in 2014) while IT and consulting revenue also decreased in 2014 from (\$1.3 million in 2013 to \$1.1 million in 2014). Fourth quarter 2014 revenue for DSIT was \$3.3 million reflecting a slight decrease (3%) compared to fourth quarter 2013 revenue of \$3.4 million. Fourth quarter 2014 revenues were unchanged compared to third quarter 2014 revenues.

The decrease in revenues in our Energy & Sonar Security Solutions activities was primarily due to the near completion of a major DDS project whose completion was delayed by weather conditions at the customer's site which limited DSIT's ability to recognize revenue on the project as well as the near completion of another DDS project in 2014 without a similar sized project replacing it in backlog. Revenues from DSIT's other IT and consulting activities decreased slightly in 2014 due to less billable hours during the year.

Gross profit in DSIT in 2014 was \$3.7 million reflecting a decrease of \$0.7 million or 16% from \$4.4 million in 2013. The decrease in the year-on-year gross profit was attributable to both decreased revenues and gross margins in DSIT's Energy & Sonar Security activities. DSIT's fourth quarter gross profit of \$1.2 million reflected an increase of \$0.4 million as compared to the fourth quarter of 2013's gross profit of \$0.8 million and a slight increase (approximately \$40,000) as compared to the third quarter of 2014. The fourth quarter increase in gross profit was due to increased gross margin in the quarter.

DSIT's gross margin in 2014 was 30%, down from 2013's gross margin of 34%. The decrease in gross margin in 2014 was attributable to the mix of projects worked on and the abovementioned weather conditions that limited progress in one of DSIT's projects and resulted in increased labor and installation costs in the first half of 2014. Second half 2014 margins (35%), however, reflected a significant increase over first half 2014 margins (25%) due to a change in the mix of projects worked on during the period.

During 2014, DSIT recorded approximately \$1.0 million of R&D expense, a decrease of approximately \$0.5 million compared to 2013. DSIT's decreased R&D expense was due to increased participation by third parties in DSIT's R&D costs and the reduction of an R&D costs in a certain R&D project in 2014. R&D expense in 2014 was net of participations from the BIRD Foundation and MEIMAD (approximately \$0.5 million in 2014 and \$0.3 million in 2013). R&D expense was \$0.2 million and \$0.4 million during the fourth quarters of 2014 and 2013, respectively. The bulk of DSIT's R&D expense is focused on developing land-based security fiber-optic products as well as other fiber-optic applications and the next generation integrated passive/active threat detection system for underwater site protection. DSIT continued to work on joint development (with USSI) of the PAUSS next generation integrated passive/active threat detection system for underwater site protection in 2014, however, progress has been negatively impacted by USSI's increased focus on its oil and gas activities, its limited financial resources and ultimate suspension of activities in March 2015 (see Recent Developments). DSIT does not expect a material change in R&D expense for 2015.

During 2014, DSIT recorded approximately \$3.1 million of selling, general and administrative ("SG&A") expense as compared to approximately \$3.3 million recorded during 2013. The decrease compared to 2013 is attributable to non-cash stock compensation expense (\$160,000) associated with the modification of certain options at DSIT in 2013. Fourth quarter 2014 SG&A of \$0.7 million represents a decrease of \$0.1 million compared to fourth quarter 2013's SG&A of \$0.8 million due primarily to a weakening of the NIS during in 2014. DSIT expects SG&A to increase slightly during 2015 as the company expects to increase its sales and marketing efforts during the year.

For 2014, DSIT intends to file its tax returns in Israel as a "Preferred Enterprise". As a Preferred Enterprise, DSIT's corporate income tax rate for 2014 (and beyond) will be 16% as compared to its 2013 corporate income tax rate of 26.5%. This decrease in DSIT's expected future tax rate reduced the value of DSIT's deferred tax assets. Accordingly, DSIT incurred an income tax expense of approximately \$0.2 million during 2014.

At December 31, 2013, DSIT had a backlog of approximately \$13.4 million. During the 2014, we received new orders totaling approximately \$11.2 million and at the end of 2014 had a backlog of approximately \$12.0 million. Such backlog includes approximately \$3.0 million for long-term maintenance and support expected to begin in late 2015. The backlog does not include approximately \$17 million of new orders received by DSIT in the first months of 2015 (see Recent Developments) for HMS systems and an ASW trainer for an undisclosed Navy and follow-on orders for development and production of both hardware and embedded software projects for customers in Israel.

DSIT recorded a net loss of \$0.4 million in 2014 as compared to a net loss of \$0.5 million in 2013. The decreased loss of \$0.1 million from 2013 to 2014 was primarily due to the decreased gross profit (\$0.7 million - which resulted from both decreased revenues and gross margins) offset by decreased R&D costs (\$0.5 million) and decreased SG&A costs (\$0.2 million). DSIT's expects to recognize over \$10 million from its December 31, 2014 backlog and the orders it received in early 2015 (see "Recent Developments"). DSIT expects to show significant revenue growth in 2015 compared to 2014, particularly from its Energy & Security Sonar Solutions products as well as from Other Real-Time and Embedded Solutions products. This is based upon the backlog from December 31, 2014, the new orders received in early 2015 and additional orders expected to be received over the balance of 2015. While DSIT has a significant pipeline of project proposals, most of its major projects come after a lengthy sales cycle over which it has little control. Accordingly, we have no assurance that such growth will materialize.

#### GridSense

While GridSense sees some improvement in the overall business environment in the utility industry and expects utility spending to increase in future quarters, the timing of such spending on products such as those that GridSense provides cannot be predicted with certainty due to the sales cycle of electric utilities which is typically long and requires much technical and application support. To address these long sales cycles, GridSense has expanded its customer pilot programs from just a handful in 2011 to over 50 ongoing pilots (of which 15 are major pilot programs each of which could generate over \$500,000 in revenue) around the globe. In the past, GridSense has not, however, generally been able to leverage market exposure into high volume sales. We believe this was due to the fact that 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 its sales and engineering efforts and is focusing on fewer and more standardized opportunities which seem most likely to result in commercial-scale orders. Specifically, we plan to focus our continued sales efforts in 2015 only on those products that have already shown the most traction in the marketplace such as the Transformer IQ® and the Line IQ®.

In 2014, GridSense reported revenues of \$4.5 million, a decrease of \$0.5 million (11%) compared to 2013 revenues. The decrease in 2014 year-on-year revenues was attributable to decreased revenues from GridSense's U.S. operations which saw its revenues decrease from \$3.4 million in 2013 to \$2.8 million in 2014. Revenues from GridSense's Australian operations increased from AU\$1.6 million in 2013 to AU\$1.9 million in 2014, however, the increase was muted in US dollars (an increase from \$1.6 million in 2013 to \$1.7 million in 2014) due to the weakening of the Australian currency during the period. The decreased U.S. revenue was attributable to product mix along with difficulties associated with the transfer of production activities to the U.S from Australia combined with the completion of a major order from a California based investor owned utility in 2013. The increased Australian revenue was attributable to the delivery of large orders received in early 2014. Fourth quarter 2014 revenues of \$1.1 million was approximately \$350,000 or 24% below fourth quarter 2013 revenues of \$1.5 million. This decrease in revenues was attributable to the aforementioned order from a major national utility which was fulfilled in late 2013. Fourth quarter 2014 revenues were unchanged as compared to third quarter 2014 revenues.

GridSense's gross profit in 2014 (\$1.3 million) decreased by approximately \$0.5 million or 29% compared to 2013's gross profit. The decrease in gross profit was attributable to the abovementioned decrease in revenues and gross margins. Gross margins decreased from 36% in 2013 to 29% in 2014. The decrease in the gross margin was due to a combination of a number of factors which negatively impacted on the 2014 gross margin. Revenues in early 2014 reflected what we believe to be a temporary shift in the product mix of US sales coming from our LineIQ products and lower than expected shipments of PowerMonic due to suppliers' constraint and difficulties associated with the transfer of production activities to the U.S from Australia. In addition, we incurred certain one-time charges related to radio upgrades early in the year. Gross margins picked up in the second half of 2014 (33%) as compared to 25% in the first half of 2014. Margins are still negatively impacted by product mix and lower margins from the large scale LIQ product order for the US customer. We expect gross margins to improve to historical levels (in excess of 40%) as the product mix normalizes and PowerMonic shipments return to historical levels.

During 2014, GridSense recorded \$1.1 million of R&D expense as compared to \$2.1 million during 2013. The decreased R&D expense is due to the downsizing of GridSense's Australian operations and reduced engineering staff in the U.S. following the restructuring implemented by GridSense in mid-2013. Fourth quarter 2014 R&D expense was \$0.2 million compared to \$0.3 million in the fourth quarter of 2013 and \$0.2 million in the third quarter of 2014. GridSense expects that R&D expense going forward will remain at or about their current levels going forward.

During 2014, GridSense recorded \$2.7 million of SG&A expense representing a decrease of approximately \$0.8 million (22%) compared to 2013 SG&A expense. The decreased SG&A expense is due to the downsizing of GridSense's Australian and U.S. operations following the restructuring implemented by GridSense in mid-2013. Fourth quarter SG&A expense of \$0.6 million reflects a decrease of \$0.2 million from the fourth quarter of 2013 due to lower headcount and refocused marketing activities. We expect that SG&A costs will stabilize at or about their current levels going forward.

In the fourth quarter of 2014, as a result of our annual impairment test of goodwill, we recorded a goodwill impairment charge of \$1.8 million at GridSense.

Acorn continues to lend GridSense money for it working capital needs. Following GridSense's repayment of its \$275,000 outstanding balance (at December 31, 2013) to Acorn in February 2014, it subsequently borrowed an additional \$1,865,000 of which \$250,000 was repaid in August 2014. GridSense's ability to repay this amount and any further loans is dependent upon their meeting their sales forecasts in 2015.

In July 2014, GridSense signed an amendment to its Loan and Security Agreement with a bank to extending the expiration date of its revolving line-of-credit of \$1.5 million to June 29, 2015. In addition, the bank agreed to allow GridSense to borrow against 80% of certain accounts receivable balances up to an additional \$750,000 for a period of one year (to July 16, 2015). As at December 31, 2014, GridSense was utilizing \$1,480,000 of this line-of-credit plus an additional \$379,000 of its accounts receivable financing. On March 24, 2015, GridSense was utilizing \$1,480,000 of this line-of-credit plus approximately an additional \$80,000 of its accounts receivable financing. Acorn has guaranteed to the bank amounts outstanding under the line-of-credit. Acorn is not in compliance with the financial covenants under its guaranty. Acorn is currently negotiating with the bank terms of repayment of GridSense's outstanding debt under the line-of-credit.

We have no assurance that GridSense will generate sufficient sales or reduce its need for additional financing to support its working capital needs. Additional working capital support may be in the form of an additional or expanded bank line, new investment by others, additional loans by Acorn, or a combination of the above. There is no assurance that GridSense will be able to obtain an additional or expanded line-of-credit or other support in sufficient amounts, in a timely manner or on acceptable terms. The availability and amount of any additional loans from us in GridSense may be limited by the working capital needs of our corporate activities and other operating companies.

### **OmniMetrix**

Following the emergence of M2M (machine-to-machine) and Internet of Things applications whereby companies aggregate multiple sensors and monitors into a simplified dashboard for customers, OmniMetrix believes it can play a key role in this new economic ecosystem. Given that residential and industrial standby generators as well as pumps, pumpjacks, light towers, turbines, compressors, as well as other oilfield equipment are part of the critical infrastructure increasingly becoming monitored in Internet of Things applications, and given that OmniMetrix monitors all major brands of critical equipment, OmniMetrix is well-positioned to be a competitive participant in this new market. As part of its strategy to broaden its market reach, OmniMetrix is in discussions with several companies in this market to explore strategic partnerships.

OmniMetrix is revising its strategic direction 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. In addition, over the past 12 months, OmniMetrix has shifted its focus to add several additional applications where demand has grown such as in the oilfield communications market.

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 needs to collect and report run times and annual emissions or face significant civil penalties. Consequently, some end-user customers as well as environmental engineering firms, 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. However, we have no assurance that we will ultimately be able to generate significant revenues from our ability to assist with the compliance with these regulations.

In 2014, OmniMetrix recorded revenues of \$2.8 million (\$2.2 million in its M2M segment and \$0.6 million in its PM segment) as compared to revenues of \$2.2 million recorded in 2013 (\$1.7 million in its M2M segment and \$0.5 million in its PM segment). The increase in revenues is driven by increases in both monitoring and hardware revenue. The increase in M2M revenues was split evenly with a \$250,000 increase (22%) in monitoring revenue recorded as well as a \$250,000 increase in hardware revenue (49%) as compared to 2013. Such increases are attributable to the increased number of units being monitored. The increase in PM revenues was primarily in hardware as monitoring revenues were relatively flat in 2014 when compared to 2013.

Gross profit during 2014 was approximately \$1.6 million reflecting a gross margin of 58% on revenues compared with a gross profit of \$1.2 million (56% gross margin) in 2013. The increased gross profit in 2014 was primarily due to increased revenues. The increase in the gross margin from 2013 was due to the elimination of amortization allocated to cost of sales (\$174,000) following the impairment of all of OmniMetrix's intangibles in 2013. Gross margin in 2014 included certain one-time inventory adjustments (approximately \$100,000) which negatively impacted on the gross margin. Fourth quarter 2014 gross profit of \$455,000 reflected a gross margin of 60% as compared to fourth quarter 2013 gross profit of \$360,000 (61% gross margin) and third quarter 2014 gross profit of \$398,000 (59% gross margin). Gross margins are driven by margins on monitoring revenue which was 85% during the year. As monitoring revenue continues to grow, we expect OmniMetrix's margins to increase in the long term as fixed costs are spread over a greater revenue base and the deferred costs associated with the provision of units to certain customers below cost are fully amortized.

During 2013, OmniMetrix recorded approximately \$616,000 or R&D expense costs as compared to \$647,000 in 2013 with quarterly expense averaging about \$154,000 per quarter. We do not expect that these costs will materially change in the coming quarters.

During 2014, OmniMetrix recorded approximately \$2.6 million of SG&A costs. Such costs were significantly below 2013 SG&A costs of \$4.5 million (a decrease of 43%). The decreased SG&A costs from 2013 were the result of decreased payroll and marketing costs following our restructuring of activities in mid-2013. Fourth quarter 2014 SG&A costs of \$0.7 million were \$0.2 million less than that of the fourth quarter of 2013 and \$0.1 million more than third quarter 2014's G&A costs of \$0.6 million. We anticipate that our SG&A costs in 2015 will remain roughly at the levels in the third and fourth quarters of 2014.

In 2013, OmniMetrix engaged in restructuring its operations to better align expenses with revenues. This resulted in personnel layoffs and significantly reduced utilization of its leased facility in Buford, Georgia. In 2014, OmniMetrix adjusted its estimated exit costs for its leased facility in Buford, Georgia and took an addition restructuring charge of \$96,000. While no assurance can be given that we will be successful, we intend to continue to evaluate the extent to which is appropriate to share the resources of OmniMetrix with GridSense in order to capitalize on synergies from both companies' machine-to-machine operating models, power assurance focus and complementary personnel.

OmniMetrix currently has no other sources of financing other than its sales and financing from Acorn. During 2014, Acorn lent OmniMetrix a total of \$850,000. In 2015, OmniMetrix will require additional financing depending upon its level of penetration into the M2M market and the realization of potential synergies with GridSense. Additional financing for OmniMetrix may be in the form of a bank line, new investment by others, a loan by Acorn, or a combination of the above. The availability and amount of any additional loans from us to OmniMetrix may be limited by the working capital needs of our corporate activities and other operating companies.

Corporate

Corporate general and administrative expense in 2014 reflected a \$1.5 million decrease to \$3.6 million as compared to \$5.1 million of expense in 2013. The decrease in corporate G&A is primarily attributable to decreases in salary costs (which decreased by approximately \$700,000) and investor relations (which decreased by approximately \$440,000). Such reductions are a direct result of steps taken in the fourth quarter of 2013 to reduce corporate overhead costs.

Fourth quarter 2014 corporate general and administrative expense was \$0.9 million reflecting a decrease of approximately \$0.2 million compared to the fourth quarter of 2013 and an increase of \$0.2 million as compared to the third quarter of 2014. The decrease in fourth quarter 2014 corporate general and administrative expense compared to fourth quarter 2013's balance was primarily due to decreased salary and investor relations expenses while the increase compared to third quarter 2014's balance was primarily due to an increased non-cash stock compensation expense in the quarter and increased professional fees incurred following the resignation of our in-house general counsel.

In the fourth quarter of 2013, Acorn took steps to reduce its corporate overhead expense and cash burn and was able to reduce its cash expenses in 2014 by 36%. Acorn plans to continue to reduce its investor relations activities in 2015 as well as looking to minimize corporate overhead expense to the extent possible. We have recently moved our corporate offices in order to further reduce corporate overhead. We expect our corporate general and administrative costs to decrease from current levels though actual results are dependent upon our level of corporate activity during 2015.

On November 5, we closed on a private placement of common stock and warrants to purchase common stock. Upon the closing of this financing, we received gross proceeds of approximately \$4.5 million (approximately \$4.0 million, net of transaction costs) resulting from the issuance and sale of 4,285,714 shares of common stock at a price per share of \$1.05 and warrants to purchase up to 2,142,857 shares of common stock at an exercise price of \$1.30 per share. The warrants are non-exercisable for six months after the closing of the financing and have a term of five and a half years. At the closing, pursuant to the terms of the Placement Agent Agreement, in addition to its cash fee (included in the transaction costs), the placement agent received warrants to purchase 214,285 shares of our common stock at an exercise price of \$1.26 per share. The placement agent's warrants are non-exercisable for six months from the date of the closing and have a term of five years.

As of March 24, 2015, Acorn's corporate operations (not including cash at any of our subsidiaries) held a total of approximately \$2.1 million in cash and cash equivalents (\$0.2 million in U.S. banks and \$1.9 million in Israeli banks (all of which can be repatriated without any tax consequence)). We expect to continue to support the working capital needs of our subsidiaries to the extent that we can. While we plan for both GridSense and OmniMetrix to be net cash flow neutral in 2016, these companies will need support for their financing needs in 2015. In 2014, we lent GridSense and OmniMetrix approximately \$1,340,000 and \$850,000, respectively, net of repayments. We expect that in 2015, DSIT will generate significant amounts of cash which will be available to support the corporate cash needs of Acorn and its subsidiaries. We believe that Acorn will have sufficient liquidity to finance its activities and the activities of GridSense and OmniMetrix over at least the next 12 months based upon its current cash balance and the support to be provided by DSIT. If the support provided by DSIT is not sufficient, Acorn will not be able to fund GridSense and OmniMetrix as it has historically which would materially impact the carrying value of the subsidiaries and their ability to continue operations.

If our current cash plus any cash generated from operations and borrowing from available lines of credit, cannot provide sufficient liquidity to finance the operating activities of Acorn and the operations of our operating subsidiaries for the foreseeable future or the next 12 months in particular, we can either access the capital markets, divest from one or more of our assets or find a strategic partner for one or more of our businesses. There can be no assurance however that we will be able to exercise any of these options to improve our liquidity.

### CRITICAL ACCOUNTING POLICIES

The SEC defines "critical accounting policies" as those that require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods.

The following discussion of critical accounting policies represents our attempt to report on those accounting policies, which we believe are critical to our consolidated financial statements and other financial disclosure. It is not intended to be a comprehensive list of all of our significant accounting policies, which are more fully described in Note 2 of the Notes to the Consolidated Financial Statements included in this Annual Report. In many cases, the accounting treatment of a particular transaction is specifically dictated by generally accepted accounting principles, with no need for management's judgment in their application. There are also areas in which the selection of an available alternative policy would not produce a materially different result.

We have identified the following as critical accounting policies affecting our Company: principles of consolidation and investments in associated companies; business combinations, impairments in goodwill and intangible assets, revenue recognition, foreign currency transactions and stock-based compensation.

Principles of Consolidation and Investments in Associated Companies

Our consolidated financial statements include the accounts of all majority-owned subsidiaries. All intercompany balances and transactions have been eliminated.

Investments in other entities are accounted for using the equity method or cost basis depending upon the level of ownership and/or our ability to exercise significant influence over the operating and financial policies of the investee. Investments of this nature are recorded at original cost and adjusted periodically to recognize our proportionate share of the investee's net income or losses after the date of investment. When net losses from an investment accounted for under the equity method exceed its carrying amount, the investment balance is reduced to zero and additional losses are not recorded. We resume accounting for the investment under the equity method when the entity subsequently reports net income and our share of that net income exceeds the share of net losses not recognized during the period the equity method was suspended. Investments are written down only when there is clear evidence that a decline in value that is other than temporary has occurred. As at December 31, 2014, we no longer have cost or equity basis investments.

The activities of USSI have been suspended and accordingly are reflected as discontinued operations (see Recent Developments).

Business combination accounting

We have acquired a number of businesses during the last several years, and we may acquire additional businesses in the future. Business combination accounting, often referred to as purchase accounting, requires us to determine the fair value of all assets acquired, including identifiable intangible assets, and liabilities assumed. The cost of the acquisition is allocated to the assets acquired and liabilities assumed in amounts equal to the estimated fair value of each asset and liability, and any remaining acquisition cost is classified as an amortizable intangible asset, a non-amortizable intangible asset or goodwill. This allocation process requires extensive use of estimates and assumptions, including estimates of future cash flows to be generated by the acquired assets. Certain identifiable intangible assets, such as customer relationships and covenants not to compete, are amortized based on the pattern in which the economic benefits of the intangible assets are consumed over the intangible asset's estimated useful life. The estimated useful life of our amortizable identifiable intangible assets ranges from three to twenty years. Goodwill is not amortized. Accordingly, the acquisition cost allocation and its subsequent amortization has had, and will continue to have, a significant impact on our current operating results.

Goodwill and Intangibles

As a result of our various acquisitions, we have recorded goodwill and various amortizable intangible assets. Businesses acquired are recorded at their fair value on the date of acquisition. The excess of the purchase price over the fair value of assets acquired and liabilities assumed is recognized as goodwill.

Our goodwill at December 31, 2014 was approximately \$1.0 million representing approximately 3% of our total assets. Our goodwill is allocated to our segments as follows: Energy & Security Sonar Solutions – approximately \$0.5 million and GridSense – approximately \$0.5 million. Our intangible assets that have finite useful lives are recorded at fair value at the time of the acquisition, and are carried at such value less accumulated amortization. Our net intangible asset balance at December 31, 2014 was approximately \$1.2 million representing approximately 4% of our total assets. The intangible assets at December 31, 2014 was comprised of Software and Customer Relationships in our GridSense segment. We amortize these intangible assets on a straight-line basis over their estimated useful lives.

We review our goodwill for impairment annually at the reporting unit level in the fourth quarter of each fiscal year. Each of our reportable operating segments (Energy & Security Sonar Solutions, GridSense, Oil and Gas Sensor Systems and Power Generation) is deemed to be a reporting unit. These reporting units have been identified based on appropriate accounting principles, which considers, among other things, the manner in which we operate our business and the availability of discrete financial information. Assets acquired and liabilities assumed are assigned to a reporting unit as of the date of acquisition. In the event we reorganize our business, we reassign the assets (including goodwill) and liabilities among the affected reporting units. Our corporate activities and those relating to our non-reporting segment are not assigned to our reporting units. We periodically review these reporting units to ensure that they continue to reflect the manner in which the business is operated.

We also analyze whether any indicators of impairment for goodwill and intangibles exist each quarter. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include a sustained, significant decline in our share price and market capitalization, a decline in our expected future cash flows, a significant adverse change in legal factors or in the business climate, unanticipated competition, the testing for recoverability of our long-lived assets, and/or slower growth rates, among others.

In September 2011, the Financial Accounting Standards Board ("FASB") issued guidance that simplified how entities test for goodwill impairment. This guidance permits entities to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform a two-step goodwill impairment test. This guidance was effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011.

If we had determined that it was necessary to perform a two-step goodwill impairment test, we would determine the fair value of each reporting unit and compare it to the carrying amount of the reporting unit. Calculating the fair value of the reporting units requires significant estimates and assumptions by management. To the extent the carrying amount of a reporting unit exceeds the fair value of the reporting unit, there is an indication that the reporting unit goodwill may be impaired and a second step of the impairment test is performed to determine the amount of the impairment to be recognized, if any.

If the carrying amount of a reporting unit exceeds its estimated fair value, we conduct a second step, in which we calculate the implied fair value of goodwill. If the carrying amount of the reporting unit's goodwill exceeds the calculated implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The fair value of the reporting unit is allocated to all of the assets and liabilities of that unit (including any unrecognized intangible assets such as the assembled workforce) as if the reporting unit had been acquired in a business combination at the date of assessment and the fair value of the reporting unit was the purchase price paid to acquire the reporting unit.

We estimate the fair value of our reporting units using discounted expected future cash flows. We perform a valuation analysis, utilizing an income approach in our goodwill assessment process. The following describes the valuation methodology typically used to derive the fair value of our reporting units.

Income Approach: To determine each reporting unit's estimated fair value, we discount the expected cash flows of our reporting units. We estimate our future cash flows after considering current economic conditions and trends; estimated future operating results, growth rates, anticipated future economic and regulatory conditions; and the availability of necessary technology. The discount rate used represents the estimated weighted average cost of capital, which reflects the overall level of inherent risk involved in our operations and the rate of return an outside investor would expect to earn. To estimate cash flows beyond the final year of our model, we use a terminal value approach. Under this approach, we use estimated operating income before depreciation and amortization in the final year of our model, adjust it to estimate a normalized cash flow, apply a perpetuity growth assumption and discount by a perpetuity discount factor to determine the terminal value. We incorporate the present value of the resulting terminal value into our estimate of fair value.

The preparation of the long-range forecasts, the selection of the discount rates and the estimation of the multiples used in valuing the terminal year involve significant judgments. Changes to these assumptions could affect the estimated fair value of our reporting units and could result in a goodwill impairment charge in a future period.

For 2014, as required, we performed an annual impairment test of recorded goodwill during the fourth quarter (or earlier if impairment indicators or triggering events are present). During the fourth quarter of 2014, we determined that goodwill associated with our GridSense reporting unit was impaired and recorded a charge of \$1.8 million in our consolidated statements of operations. We believe that lower than expected sales by GridSense in 2014 and reduced projected revenues and cash flows led to the impairment charge. In addition to the goodwill impairment analysis, we also analyzed GridSense intangible assets for impairment. No impairment was found. Also in the fourth quarter of 2014, we wrote off the goodwill (\$1.4 million) and intangible balances (\$2.0 million) associated with USSI following the suspension of operations at the company (see Recent Developments).

### Revenue Recognition

Revenue from time-and-materials service contracts, maintenance agreements and other services is recognized as services are provided, all significant contractual obligations have been satisfied and collections assured.

In the year ended December 31, 2014, we recorded approximately \$12.3 million of revenues in our DSIT subsidiary representing approximately 63% of our consolidated revenue for the year. In 2014, DSIT derived approximately \$11.1 million or 90% of its revenues from fixed-price type contracts. Fixed-price type contracts require the accurate estimation of the cost, scope and duration of each engagement. Revenue and the related costs for these projects are recognized for a particular period, using the percentage-of-completion method as costs (primarily direct labor) are incurred, with revisions to estimates reflected in the period in which changes become known. If we do not accurately estimate the resources required or the scope of work to be performed, or do not manage our projects properly within the planned periods of time or satisfy our obligations under the contracts, then future revenue and margins may be significantly and negatively affected and losses on existing contracts may need to be recognized. Any such resulting changes in revenues and reductions in margins or contract losses could be material to our results of operations. In 2013 and 2014, DSIT encountered significant changes in estimate for a material project due to increased estimated installation costs of its AquaShield<sup>TM</sup> Diver Detection Sonar system. The aggregate net changes in the contract estimates recognized using the cumulative catch-up method of accounting increased net income by approximately \$0.8 million and \$1.2 million in 2013 and 2014, respectively (\$0.04 and \$0.05 per share in 2013 and 2014, respectively).

In 2014, GridSense recorded approximately \$4.5 million of revenue representing approximately 23% of our consolidated revenue for the year.

Revenue from sales of GridSense monitoring equipment is recognized at the time title to the equipment and significant risks of ownership pass to the customer based on shipping terms, when all significant contractual obligations have been satisfied and collection is reasonably assured. Revenue from customer support services on monitoring equipment includes sales of parts and servicing of equipment. Sales of parts revenue is recognized when the parts are shipped to the customer or when the part is installed in the customer's equipment. Servicing of equipment revenue is recognized

as the related service work is performed.

In 2014, OmniMetrix recorded approximately \$2.8 million of revenue representing approximately 14% of our consolidated revenue for the year. Of OmniMetrix's 2014 revenue, \$1.1 million or 41% represents the revenue from the sales of monitoring units and \$1.7 million or 59% represents the revenue recognized from monitoring fees.

Sales of OmniMetrix monitoring systems have multiple elements, including equipment, installation and monitoring services. OmniMetrix equipment and related installations do not qualify as a separate unit of accounting. As a result, revenues (and related costs) associated with sale of equipment and related installations are recorded to deferred revenue (and deferred charges) upon activation for PG units or upon shipment for Cathodic Protection units. Revenue and related costs with respect to the sale of equipment and related installations are recognized over the estimated life of the customer relationship. Revenues from the prepayment of monitoring fees (generally paid 12 months in advance) are initially recorded as deferred revenue upon receipt of payment from the customer and then amortized to revenue over the monitoring service period.

In 2014, USSI recorded approximately \$0.6 million of revenue which are included in discontinued operations (see Note 3 to the Consolidated Financial Statements).

Revenue from sales of USSI equipment was recognized at the time title to the equipment and significant risks of ownership passed to the customer (which was generally upon shipment and/or customer acceptance), when all significant contractual obligations were satisfied and collection was reasonably assured.

### Foreign Currency Transactions

The currency of the primary economic environment in which our corporate headquarters and our U.S. subsidiaries operate is the United States dollar ("dollar"). Accordingly, the Company and all of its U.S. subsidiaries use the dollar as their functional currency.

DSIT's functional currency is the New Israeli Shekel ("NIS") while GridSense's functional currency for its Australian operations is the Australian dollar ("AUS\$"). Their financial statements have been translated using the exchange rates in effect at the balance sheet date. Statements of operations amounts have been translated using the average exchange rate for the year or the specific exchange rate on the date of a specific transaction. All exchange gains and losses denominated in non-functional currencies are reflected in finance expense, net in the consolidated statement of operations when they arise.

### Stock-based Compensation

We recognize stock-based compensation expense based on the fair value recognition provision of applicable accounting principles, using the Black-Scholes option valuation method. Accordingly, we are required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award and to recognize that cost over the period during which an employee is required to provide service in exchange for the award. Under the Black-Scholes method, we make assumptions with respect to the expected lives of the options that have been granted and are outstanding, the expected volatility, the dividend yield percentage of our common stock and the risk-free interest rate at the respective dates of grant.

For our Acorn options, the expected volatility factor used to value stock options in 2014 was based on the historical volatility of the market price of the Company's common stock over a period equal to the expected term of the options. For the expected term of the option, we used an estimate of the expected option life based on historical experience. The risk-free interest rate used is based upon U.S. Treasury yields for a period consistent with the expected term of the options. We assumed no quarterly dividend rate. We recognize stock-based compensation expense on an accelerated basis over the requisite service period. Due to the numerous assumptions involved in calculating share-based compensation expense, the expense recognized in our consolidated financial statements may differ significantly from the value realized by employees on exercise of the share-based instruments. In accordance with the prescribed methodology, we do not adjust our recognized compensation expense to reflect these differences. Recognition of stock-based compensation expense had, and will likely continue to have, a material effect on our selling, general and administrative and other items within our consolidated statements of operations and also may have a material effect on our deferred income taxes and additional paid-in capital line items within our consolidated balance sheets. We are also required to use judgment in estimating the amount of stock-based awards that are expected to be forfeited. If actual forfeitures differ significantly from the original estimate, stock-based compensation expense and our results of operations could be materially impacted.

In 2012, our USSI subsidiary (which suspended its operations in March 2015 – see Recent Developments) established a 2012 Stock Plan under which key employees, directors and consultants of USSI shares of USSI Common Stock. The options were granted with an exercise price of \$1.72 per share based on a valuation performed by an independent third party and are exercisable for a period of seven years. The options vest over a three to four year period based on date of hire or other benchmark specified in the option agreement. During the years ended December 31, 2013 and 2014, \$133,000 and \$79,000, respectively, were recorded as stock compensation expense with respect to USSI's stock option plan.

In 2013, our DSIT subsidiary modified the vesting period for options previously granted under its Key Employee Stock Option Plan such that options would vest either upon the occurrence of an initial public offering of DSIT or a merger, acquisition, reorganization, consolidation or similar transaction involving DSIT (the previous vesting terms) or upon the option grantee achieving 25 years of service with DSIT. As a result of the modified vesting terms, DSIT recorded stock compensation expense of \$160,000 and \$2,000 during the years ended December 31, 2013 and 2014, respectively.

For each of the years ended December 31, 2013 and 2014, we incurred stock compensation expense with respect to options of approximately \$1.2 million and \$0.9 million, respectively. Such amounts include the abovementioned stock compensation expense associated with DSIT and USSI.

See Note 14 to the consolidated financial statements for the assumptions used to calculate the fair value of share-based employee compensation for our Acorn options.

## **RESULTS OF OPERATIONS**

The selected consolidated statement of operations data for the years ended December 31, 2013 and 2014 and consolidated balance sheet data as of December 31, 2013 and 2014 has been derived from our audited Consolidated Financial Statements included in this Annual Report. The selected consolidated statement of operations data for the years ended December 31, 2010, 2011 and 2012 has been derived from our consolidated financial statements not included herein.

This data should be read in conjunction with our Consolidated Financial Statements and related notes included herein and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

# Selected Consolidated Statement of Operations Data:

	For the Years Ended December 31,							
	2010 2011 2012 2013 20							
	(in thousands, except per share data)							
Revenues	\$13,840	\$17,612	\$20,288	\$19,560				
Cost of sales	7,818	10,601	11,731	12,785	12,922			
Gross profit	6,022	7,011	6,224	7,503	6,638			
Research and development expenses, net	582	1,938	3,013	4,276	2,714			
Selling, general and administrative expenses	9,614	10,333	15,535	16,455	12,023			
Impairments	1,166	_	_	6,731	1,773			
Restructuring and related charges				1,389	294			
Operating loss	(5,340)	(5,260)	(12,324)	(21,348)	(10,166)			
Finance income (expense), net	(219)		1	162	(129)			
Gain on investment in GridSense	1,327	_	<del></del>		(12) ) —			
Distributions received from EnerTech	135							
Loss on sale of EnerTech	(1,821)							
Gain on sale of HangXing	(1,021 ) —	492						
Loss from operations before taxes on income	(5,918)		(12,263)	(21,186)	(10,295)			
Income tax benefit (expense)	(671 )		2,956	(21,100)	(16,2)3			
Income (loss) from continuing operations	(6,589)		(9,307)	` ,	(10,459)			
Gain on the sale of discontinued operations, net of income	(0,50)	•	(5,507)	(21,542)	(10,43)			
taxes	_	31,069	_	_	_			
Loss from discontinued operations, net of income taxes	(19,161)	(4,722)	(8,428)	(9,647)	(19,140)			
Net income (loss)	(25,750)	34,320	(17,735)	(30,989)	(29,599)			
Non-controlling interest share of loss – continuing								
operations	(182)	(22)	(84)	62	47			
Non-controlling interest share of loss - discontinued								
operations	844	1,111	1,108	1,213	2,407			
Net income (loss) attributable to Acorn Energy, Inc.	* ** * * * * * * * * * * * * * * * * * *	***	****	*	*			
shareholders	\$(25,088)	\$35,409	\$(16,711)	\$(29,714)	\$(27,145)			
Basic net income (loss) per share attributable to Acorn								
Energy, Inc. shareholders:								
Income (loss) from continuing operations	\$(0.45)	\$0.46	\$(0.52)	\$(1.12)	\$(0.46)			
Discontinued operations	(1.23)		(0.41)		1			
Net income (loss) per share attributable to Acorn Energy,	,		, ,	· · · · · · · · · · · · · · · · · · ·	,			
Inc. shareholders	\$(1.68)	\$2.03	\$(0.93)	\$(1.57)	\$(1.19)			
Weighted average number of shares outstanding	14010	15.460	15 001	10.016	22 0 4 4			
attributable to Acorn Energy, Inc. shareholders - basic	14,910	17,462	17,891	18,916	22,844			
Diluted net income (loss) per share attributable to Acorn								
Energy, Inc. shareholders:								
Income (loss) from continuing operations	\$(0.45)	\$0.44	\$(0.55)	\$(1.12)	\$(0.46)			
Discontinued operations	(1.23)			(0.45)	1			
Net income (loss) per share		\$1.99			\$(1.19)			
Weighted average number of shares outstanding								
attributable to Acorn Energy, Inc. shareholders - diluted	14,910	17,743	17,891	18,916	22,844			

The following table sets forth certain information with respect to revenues and profits of our reportable business segments for the years ended December 31, 2014 and 2013, including the percentages of revenues attributable to such segments. (See Note 18 to our Consolidated Financial Statements for the definitions of our reporting segments).

	Energy & Security Sonar Solutions		•	GridSense		M2M		Other		Total	
Year ended December 31, 2014:											
Revenues from external customers	\$	11,200		\$ 4,493		\$2,17	4	\$1,693	3	\$19,56	0
Percentage of total revenues from external customers		57	%	23	%	11	%	9	%	100	%
Segment gross profit		3,272		1,297		1,18	2	888		6,638	}
Year ended December 31, 2013:											
Revenues from external customers		11,815		5,026		1,67	1	1,770	5	20,28	8
Percentage of total revenues from external customers		58	%	25	%	8	%	9	%	100	%
Segment gross profit		3,817		1,828		867		991		7,503	,

## **2014 COMPARED TO 2013**

*Revenues*. Revenues of \$19.6 million during 2014 reflected a decrease of \$0.7 million or 4% as compared to 2013 revenues of \$20.3 million. Revenues at DSIT decreased 6% from \$13.1 million during 2013 to \$12.3 million in 2014; OmniMetrix increased 25% from \$2.2 million during 2013 to \$2.8 million in 2014 while revenues at GridSense decreased 11% from \$5.0 million during 2013 to \$4.5 million in 2014.

The decrease in DSIT revenues was primarily due to the near completion of a major DDS project whose completion was delayed by weather conditions at the customer's site which limited DSIT's ability to recognize revenue on the project as well as the near completion of another DDS project in 2014 without a similar sized project replacing it in backlog. Revenues from DSIT's other IT and consulting activities also decreased slightly in due to less billable hours during the year. The increase in OmniMetrix revenues was driven by increased revenues in OmniMetrix's M2M activities which increased 30% from \$1.7 million in 2013 to \$2.2 million in 2014 as well as increased revenues in its PM which increased 11% from \$0.5 million in 2013 to \$0.6 million in 2014. The increase in OmniMetrix's M2M activities is attributable to the increased number of units being monitored. The decrease in GridSense revenues was primarily due to decreased revenues from GridSense's U.S. operations which saw its revenues decrease from \$3.4 million in 2013 to \$2.8 million in 2014. This was partially offset by a slight increase in revenues from GridSense's Australian operations (\$0.1 million). The decreased U.S. revenue was attributable to product mix along with difficulties associated with the transfer of production activities to the U.S from Australia combined with the completion of a major order from a California based investor owned utility in 2013. The increased Australian revenue was attributable to the delivery of large orders received in early 2014.

Gross profit. Gross profit of \$6.6 million during 2014 reflects a \$0.9 million or 12% decrease compared to 2013 gross profit of \$7.5 million. Gross profit at DSIT decreased \$0.7 million or 16% in 2014 as compared to 2013. Gross profit at OmniMetrix increased (\$0.4 million or 30%) while gross profit at GridSense decreased (\$0.5 million or 29%). The decrease in DSIT's year-on-year gross profit was attributable to both decreased revenues and gross margins in DSIT's Energy & Sonar Security activities. The decrease in DSIT's gross margin in these activities was attributable to the mix of projects worked on and the abovementioned weather conditions that limited progress in one of DSIT's projects and resulted in increased labor and installation costs in the first half of 2014. The increase in OmniMetrix's gross profit was primarily attributable to its increased revenues as gross margins increased nominally from 56% in 2013 to 58% in 2014. GridSense's gross profit decrease was the result of both decreased revenues and a decreased gross margin which fell to 29% in 2014 from 36% in 2013. The decrease in GridSense's gross margin was due to a combination of factors. Revenues in early 2014 reflected a temporary shift in the product mix of US sales coming from LineIQ products and lower than expected shipments of PowerMonic due to suppliers' constraint and production ramp up activities. In addition, GridSense incurred a certain one-time charges related to radio upgrades early in the year.

Research and development ("R&D") expenses. R&D expenses decreased \$1.6 million (37%) from \$4.3 million in 2013 to \$2.7 million in 2013. The decreased R&D expense was attributable to decreases at GridSense whose R&D expense decreased 48% from \$2.1 million in 2013 to \$1.1 million in 2014 and at DSIT whose R&D expense decreased 34% from \$1.5 million in 2013 to \$1.0 million in 2014. The decrease at GridSense was due to the

downsizing of GridSense's Australian operations and reduced engineering staff in the U.S. following the restructuring implemented by GridSense in mid-2013. DSIT's decreased R&D expense was due to increased participation by third parties in DSIT's R&D costs and the reduction of an R&D costs in a certain R&D project in 2014. OmniMetrix recorded approximately \$616,000 of R&D expense during the year compared to \$647,000 in 2013.

Selling, general and administrative expenses ("SG&A"). SG&A costs in 2014 decreased by \$4.4 million (27%) as compared to 2013. DSIT recorded approximately \$3.1 million of SG&A expense in 2014 as compared to \$3.3 million in 2013. The decrease compared to 2013 is attributable to non-cash stock compensation expense (\$160,000) associated with the modification of certain options at DSIT in 2013. OmniMetrix recorded approximately \$2.6 million of SG&A costs. Such costs were significantly below 2013 SG&A costs of \$4.5 million (a decrease of 43%). The decreased SG&A costs from 2013 were the result of decreased payroll and marketing costs following our restructuring of activities in mid-2013. GridSense recorded \$2.6 million of SG&A expense representing a decrease of approximately \$0.9 million (26%) compared to 2013 SG&A expense. The decreased SG&A expense is due to the downsizing of GridSense's Australian and U.S. operations following the restructuring implemented by GridSense in mid-2013. Corporate general and administrative expense in 2014 reflected a \$1.5 million decrease to \$3.6 million as compared to \$5.1 million of expense in 2013. The decrease in corporate G&A is primarily attributable to decreases in salary costs (which decreased by approximately \$700,000) and investor relations (which decreased by approximately \$440,000).

*Impairments*. In 2014, we recorded an impairment of goodwill of \$1.8 million following our annual impairment test based on expected discounted cash flows from our GridSense subsidiary.

Restructuring. During 2014, we recorded additional restructuring charges at both GridSense (\$0.2 million) and OmniMetrix (\$0.1 million). Our restructuring charge at GridSense was made primarily in connection with the closing of our Australian operations while our restructuring charge at OmniMetrix was an adjustment of its 2013 charge on its underutilized facility.

Discontinued operations. During 2014, USSI recorded losses net of income tax of \$19.1 million. USSI's loss includes impairments of inventory (\$6.0 million), fixed assets (\$1.0 million), intangibles (\$2.0 million) and goodwill (\$1.4 million). These losses were offset by the non-controlling interest's share of our operations of approximately \$2.4 million.

Net loss attributable to Acorn Energy. We had a net loss attributable to Acorn Energy of \$27.1 million in 2014 compared with a net loss of \$29.7 million in 2013. Our loss in 2014 was due to losses in each of our subsidiaries; DSIT (\$0.4 million), OmniMetrix (\$1.7 million), GridSense (\$4.8 million) and corporate expenses which contributed an additional \$3.5 million. Our USSI discontinued operations had losses of \$19.1 million. These losses from discontinued operations were partially offset by the non-controlling interest's share of those operations of approximately \$2.4 million.

### **2013 COMPARED TO 2012**

*Revenues*. Revenues during 2013 increased by \$2.3 million or 13% from \$18.0 million during 2012 to \$20.3 million in 2013. The increase in revenues was driven by increased revenues at OmniMetrix and GridSense whose revenues increased by \$1.5 million and \$1.4 million to \$2.2 million and \$5.0 million, respectively. DSIT's revenue during the period decreased from \$13.6 million in 2012 to \$13.1 million in 2013.

The increase in OmniMetrix revenues was driven by increased monitoring revenue. The increase in GridSense revenues was primarily due to increased revenues from GridSense's U.S. operations which saw its revenues increase from \$1.9 million in 2012 to \$3.4 million in 2013. This was partially offset by a slight decrease in revenues from GridSense's Australian operations (\$0.1 million). The increased revenue in the United States was attributable to an order GridSense was awarded in late 2012 for 800 Transformer IQ® units from a California based investor owned utility. This order was partially fulfilled in 2012 with the balance being completed in the first quarter of 2013. In addition, in June 2013, GridSense secured an order from a major national utility based on a partnership with a regional smart grid company. The order, valued in excess of \$1.0 million, was delivered in the second half of 2013. The decrease in DSIT revenues was primarily due to the slowdown in revenue recognition in one of the company's major

projects in the third quarter as it neared completion without a similar size project replacing it in the company's backlog.

Gross profit of \$7.5 million during 2013 reflects a \$1.3 million or 21% increase compared to 2012 gross profit of \$6.2 million. Gross profit at OmniMetrix and GridSense both increased (\$1.0 million and \$0.9 million, respectively) while DSIT's 2013 gross profit decreased by \$0.6 million as compared to 2012 gross profit. The increase in both OmniMetrix's and GridSense's gross profit was attributable to increased revenues as well as an increased gross margin. OmniMetrix gross margin increased due to due to certain one-time adjustments recorded in 2012 which negatively impacted on the gross margin while GridSense's gross margin also increased due to a combination of a number of factors which negatively impacted on the 2012 gross margin such as product delays causing the fulfillment of orders based on the higher costing products and an inventory charge of approximately \$350,000 due to a write-off of obsolete inventory and an increase in the reserve for obsolete inventory. The decrease in DSIT's gross profit was attributable to both decreased revenues combined with a decreased gross margin. DSIT's gross margin decreased from 37% in 2012 to 34% in 2013. DSIT's reduced gross margin in 2013 was due to unanticipated delays and installation complications associated with one of the company's AquaShield projects.

Research and development ("R&D") expenses. R&D expenses increased \$1.3 million (42%) from \$3.0 million in 2012 to \$4.3 million in 2013. Increased R&D expense at GridSense (from \$1.6 million in 2012 to \$2.1 million in 2013) was due to GridSense adding to its engineering team in 2012 in order to accelerate the development of projects. OmniMetrix recorded approximately \$0.6 million of R&D expense during the year compared to \$0.3 million in 2012. DSIT's R&D expense (\$1.5 million) increased \$0.5 million from efforts to expand DSIT's portfolio of products to include land-based security fiber-optic solutions and DSIT's continued work on joint development (with USSI) of the PAUSS next generation integrated passive/active threat detection system for underwater site protection. OmniMetrix's increased R&D expense was related to increased R&D personnel.

Selling, general and administrative expenses ("SG&A"). SG&A costs in 2013 increased by \$0.9 million (6%) as compared to 2012. OmniMetrix SG&A increased dramatically from \$2.5 million in 2012 to \$4.5 million. This increase was attributable to Acorn's investment in marketing and back-office infrastructure since its acquisition of OmniMetrix. During 2013, GridSense recorded \$3.5 million of SG&A expense representing a decrease of approximately \$1.0 million (23%) compared to 2012 SG&A expense. The decreased SG&A costs is due to headcount reduction due to role consolidation and cost cutting measures that were commenced in late 2012 and continued into 2013. DSIT's SG&A increased slightly (\$3.3 million in 2013 compared to \$3.2 million in 2012), the increase being attributable non-cash stock compensation costs. Corporate general and administrative costs decreased by \$0.2 million from \$5.3 in 2012 to \$5.1 million in 2013 primarily due to decreased investor relation activities (\$0.2 million) and professional fees and costs incurred associated with our acquisition of OmniMetrix (approximately \$0.3 million) in February 2012 as well as other professional fees. These decreases were partially offset by increased non-cash stock compensation expense which increased \$0.4 million in 2013.

Impairments. In the second quarter of 2013, we recorded a \$1.1 million impairment of a customer relationship intangible following an indication from a major customer at OmniMetrix that they would be disconnecting their PG monitoring units over a period of time. In addition, during the third quarter 2013, we recorded a goodwill impairment of \$1.9 million and an impairment of other amortizing intangibles of \$3.7 million in our OmniMetrix subsidiary following the determination that the rate of adoption (sales of monitors and monitoring subscriptions) of its products was far slower than anticipated and that revenue in 2013 and future years have been significantly adversely impacted by the inability to make expected penetration in the marketplace.

Restructuring. During 2013, following changes in management at both GridSense and OmniMetrix, we recorded restructuring charges of \$0.6 million and \$0.8 million, respectively. The restructuring charge at GridSense was recorded in the second quarter and was made in connection with the downsizing of its Australian operations and personnel cutbacks in the U.S. The restructuring charge at OmniMetrix was recorded in the third quarter and was related primarily to its underutilized facility as well as personnel reductions.

*Discontinued operations*. During 2013, USSI recorded losses net of income tax of \$9.6 million. These losses were offset by the non-controlling interest's share of our operations of approximately \$1.2 million.

Net loss attributable to Acorn Energy. We had a net loss attributable to Acorn Energy of \$29.7 million in 2013 compared with a net loss of \$16.7 million in 2012. Our loss in 2013 was due to losses in each of our subsidiaries; OmniMetrix (\$11.5 million which includes impairments of \$6.7 million and a restructuring charge of \$0.8 million), GridSense (\$4.3 million which includes a restructuring charge of \$0.6 million), DSIT (\$0.5 million) and corporate expenses which contributed an additional \$5.0 million. Our USSI discontinued operations had losses of \$9.6 million. These losses from discontinued operations were partially offset by the non-controlling interest's share of those operations of approximately \$1.2 million.

### LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2014, we had working capital of \$3.9 million, including \$4.8 million of cash and cash equivalents. Net cash and cash equivalents in our continuing operations decreased during the year ended December 31, 2014 by \$11.7 million. Approximately \$7.1 million was used in operating activities of our continuing operations during the year while an additional \$11.1 million was used in the operating activities of our discontinued operations during the year.

The primary use of cash in operating activities during 2014 was the cash used in operations by our subsidiaries. Our subsidiaries in continued operations used \$2.5 million (GridSense), \$1.1 million (OmniMetrix) and \$0.8 million (DSIT) while our corporate headquarter used \$2.7 million in 2014. Our discontinued operations (USSI) used \$11.1 million in their operations in 2014.

Net cash used in investment activities in 2014 was \$1.8 million of which \$1.6 million was used in our continuing operations and \$0.2 million was used in our discontinued operations. The \$1.6 million of cash used in our continuing operations was related \$0.8 million net cash set aside for restricted deposits for DSIT's projects, \$0.4 million for the acquisition of property and equipment, \$0.2 million funded for severance assets and \$0.2 million (net) with respect to the loan to and partial repayment from USSI's channel partner.

Net cash provided by financing activities in 2014 was \$7.7 million of which \$7.4 million was provided by our continuing operations and \$0.3 million was provided by our discontinued operations. Cash of approximately \$4.0 million was received from our November capital raise plus an additional \$3.1 million was provided from the net change in short-term bank credit while borrowing of long-term debt was \$0.2 million net of repayments.

At December 31, 2014, DSIT had approximately \$1.1 million of restricted cash in banks and approximately NIS 8.6 million (approximately \$2.2 million) in Israeli credit lines available to it from two Israeli banks (approximately \$550,000 from one bank and \$1.7 million from the other. The line of credit at the second bank represents a temporary expansion of the line of credit from NIS 2 million or approximately \$515,000), \$2.1 million of which was then being used. The lines-of-credit are subject to maintaining certain financial covenants. At December 31, 2014, DSIT was in compliance with its financial covenants. In addition, to the above lines-of-credit, in December 2014, DSIT entered in an agreement with another bank to allow DSIT to borrow against certain accounts receivable balances at an interest equal to the Israeli prime rate plus 1.8%. At December 31, 2014, DSIT had borrowed approximately \$262,000 against certain accounts under this agreement. At December 31, 2014, DSIT also had deposited with two Israeli banks approximately \$1.1 million as collateral for various performance and bank guarantees for various projects as well as for its credit facilities at the banks. However, DSIT expects to redeposit a portion of these funds again as collateral for new guarantees for new projects and for renewing its credit facilities.

We expect that DSIT will over the course of 2015 generate sufficient cash to provide cash to Acorn for its cash needs and for the needs of GridSense and OmniMetrix. Such cash may be provided by DSIT by way of a loan or from DSIT repurchasing Preferred Shares of DSIT from Acorn which would not materially affect our equity stake in DSIT. We do not believe that there will be any tax liability as a result of such transfers of cash. On March 24, 2015, DSIT had no unrestricted cash in banks and was utilizing \$1.8 million of its lines-of-credit and had borrowed approximately \$1.1 million against certain accounts receivable balances. At that date, DSIT also had over \$11 million of open receivable balances, though when received, a portion of these funds will be collateralized for performance and bank guarantees.

Acorn continues to lend GridSense money for it working capital needs. Following GridSense's repayment of its \$275,000 outstanding balance (at December 31, 2013) to Acorn in February 2014, it subsequently borrowed an additional \$1,865,000 of which \$250,000 was repaid in August 2014. GridSense's ability to repay this amount and any further loans is dependent upon meeting their sales forecasts in 2015.

In July 2014, GridSense signed an amendment to its Loan and Security Agreement with a bank to extending the expiration date of its revolving line-of-credit of \$1.5 million to June 29, 2015. In addition, the bank agreed to allow GridSense to borrow against 80% of certain accounts receivable balances up to an additional \$750,000 for a period of one year (to July 16, 2015). As at December 31, 2014, GridSense was utilizing \$1,480,000 of this line-of-credit plus an additional \$379,000 of its accounts receivable financing. On March 24, 2015, GridSense was utilizing \$1,480,000 of this line-of-credit plus an approximately additional \$80,000 of its accounts receivable financing. Acorn has guaranteed to the bank amounts outstanding under the line-of-credit. Acorn is not in compliance with the financial covenants under its guaranty. Acorn is currently negotiating with the bank terms of repayment of GridSense's outstanding debt under the line-of-credit.

We have no assurance that GridSense will generate sufficient sales or reduce its need for additional financing to support its working capital needs. Additional working capital support may be in the form of an additional or expanded bank line, new investment by others, additional loans by Acorn, or a combination of the above. There is no assurance that GridSense will be able to obtain an additional or expanded line-of-credit or other support in sufficient amounts, in a timely manner or on acceptable terms. The availability and amount of any additional loans from us in GridSense may be limited by the working capital needs of our corporate activities and other operating companies.

OmniMetrix currently has no other sources of financing other than its sales and investments loans from Acorn. During 2014, Acorn lent OmniMetrix a total of \$850,000. In 2015, OmniMetrix will require additional financing depending upon its level of penetration into the M2M market and the realization of potential synergies with GridSense. Additional financing for OmniMetrix may be in the form of a bank line, new investment by others, a loan by Acorn, or a combination of the above. The availability and amount of any additional loans from us to OmniMetrix may be limited by the working capital needs of our corporate activities and other operating companies.

In November 2013, USSI reached agreement with its bank for an expanded \$1.5 million line-of-credit of which \$1,460,000 is outstanding. This line-of-credit expired on November 20, 2014 and its due date was subsequently extended to January 20, 2015. The debt has matured and is currently due on demand. USSI has granted a lien to its bank on substantially all of its assets including intellectual property. Acorn has not guaranteed the line-of-credit. We are currently in discussions with the bank regarding a forbearance agreement that would allow us to sell the USSI assets for the benefit of all stakeholders. We have no assurance that we will be able to successfully reach a forbearance agreement with the bank or ultimately sell the USSI assets for any material amounts.

As of March 24, 2015, Acorn's corporate operations (not including cash at any of our subsidiaries) held a total of approximately \$2.1 million in cash and cash equivalents (\$0.2 million in U.S. banks and \$1.9 million in Israeli banks (all of which can be repatriated without any tax consequence)). We expect to continue to support the financing needs of our subsidiaries to the extent that we can. While we plan for both GridSense and OmniMetrix to be net cash flow neutral in 2016, these companies will need support for their financing needs in 2015. In 2014, we lent GridSense and OmniMetrix approximately \$1,340,000 and \$850,000, respectively, net of repayments. We expect that in 2015, DSIT will generate significant amounts of cash which will be available to support the corporate cash needs of Acorn and its subsidiaries. We believe that Acorn will have sufficient liquidity to finance its activities and the activities of GridSense and OmniMetrix over at least the next 12 months based upon its current cash balance and the support to be provided by DSIT. If the support provided by DSIT is not sufficient, Acorn will not be able to fund GridSense and OmniMetrix as it has historically which would materially impact the carrying value of the subsidiaries and their ability to continue operations.

If our current cash plus any cash generated from operations and borrowing from available lines of credit, cannot provide sufficient liquidity to finance the operating activities of Acorn and the operations of our operating subsidiaries for the foreseeable future or the next 12 months in particular, we can access the capital markets, divest from one or more of our assets or find a strategic partner for one or more of our businesses. There can be no assurance however that we will be able to exercise any of these options to improve our liquidity.

### Contractual Obligations and Commitments

The table below provides information concerning obligations under certain categories of our contractual obligations as of December 31, 2014.

### CASH PAYMENTS DUE TO CONTRACTUAL OBLIGATIONS

	Years Ending December 31,						
	(in thousands)						
	Total 2015		2016-	2018-	2020 and		
	Total	2013	2017	2019	thereafter		
Bank and other debt	\$4,330	\$4,254	\$76	<b>\$</b> —	\$ —		
Operating leases – continuing operations	1,467	786	439	216	27		
Potential severance obligations (1)	4,794	200	1,041	211	3,342		
Minimum royalty payments (2) (3) (4)	_				_		
Contractual cash obligations – continuing operations	10,591	5,240	1,555	427	3,369		
Contractual cash obligations – discontinued operations (5)	2,332	1,797	285	100	150		
Total contractual cash obligations	\$12,923	\$7,037	\$1,840	\$527	\$ 3,519		

We expect to finance the contractual commitments for continuing operations from cash currently on hand and cash generated from operations.

- (1) Under Israeli law and labor agreements, DSIT is required to make severance payments to dismissed employees and to employees leaving employment under certain other circumstances. The obligation for severance pay benefits, as determined by the Israeli Severance Pay Law, is based upon length of service and last salary. These obligations are substantially covered by regular deposits with recognized severance pay and pension funds and by the purchase of insurance policies. As of December 31, 2014, we accrued a total of \$4.6 million for potential severance obligations to our Israeli employees of which approximately \$3.5 million was funded. The timing of actual payment of severance obligations are uncertain as employees may continue to work beyond the legal retirement age.
- (2) In June 2012, our DSIT and USSI subsidiaries were awarded a joint \$900,000 grant from the BIRD Foundation for the joint development of the next generation integrated passive/active threat detection system for underwater site protection. Under the terms of the grant agreement between the BIRD Foundation, DSIT and USSI, both DSIT and USSI will have to repay the grant based on 5% of gross sales of the commercialized product, if any. The above table does not include any royalties that may be paid under this arrangement. It is unclear at this time how the suspension of activities at USSI (see Recent Developments) may impact DSIT's obligations under this arrangement.

- (3) Our DSIT subsidiary was awarded grants from MEIMAD. Under the terms of the grant agreement between the OCS and DSIT, DSIT will have to repay the grant based on 5% of gross sales of the commercialized product, if any. The above table does not include any royalties that may be paid under this arrangement.
- (4) Our GridSense subsidiary is required to pay a royalty on any project sale of a particular product of not less than \$100,000 to two employees. The royalty rate is on a sliding scale from 1.5% to 6.0%. The above table does not include any royalties that may be paid under this arrangement.
- (5) Contractual cash obligations for discontinued operations include \$1.46 million of bank debt currently due, \$241,000 and \$185,000 of payments due for operating leases due in 2015 and 2016, respectively, \$137,000 due for potential severance obligations due in 2015 and a minimum of \$50,000 per year due in the years 2015 through 2022 under a license agreement involving several of Northrop Grumman's fiber-optic technology patents. All the above amounts have been including all operating lease payments, potential severance obligations and minimum royalty payments have been accrued and are included as current liabilities on USSI's balance sheet at December 31, 2014 (see Note 3 to our Consolidated Financial Statements).

Certain Information Concerning Off-Balance Sheet Arrangements

Our DSIT subsidiary provides various performance, advance and tender guarantees as required in the normal course of its operations. As at December 31, 2014, such guarantees totaled approximately \$3.3 million and were due to expire on different dates from 2015 to 2017. As security for a portion of these guarantees, DSIT has deposited approximately \$1.1 million (\$0.5 million of which is shown as current restricted deposits and \$0.6 million as non-current restricted deposits in our Consolidated Financial Statements). As DSIT's restricted cash is released from the completion of projects and the end of the guarantees, it expects to provide additional security deposits for new guarantees for new projects received.

*Impact of Inflation and Interest Rate & Currency Fluctuations* 

In the normal course of business, we are exposed to fluctuations in interest rates on one of our lines-of-credit (\$550,000 available) to finance our operations in Israel. Such line-of-credit bears interest at rates that are linked to the Israeli prime rate (1.75% at December 31, 2014 and 2.50% at December 31, 2013). Our GridSense subsidiary is also exposed to fluctuations in interest rates on its \$1.5 million line of credit whose interest rate is linked to the U.S. prime rate (3.25% at both December 31, 2014 and December 31, 2013).

Our non-US dollar monetary assets and liabilities (net liabilities of approximately \$0.8 million at December 31, 2014) in Israel are exposed to fluctuations in exchange rates.

Historically, a majority of DSIT's sales have been denominated in dollars or denominated in NIS linked to the dollar. Such sales transactions are negotiated in dollars; however, for the convenience of the customer they are often settled in NIS. These transaction amounts are linked to the dollar between the date the transactions are entered into until the date they are effected and billed. From the time these transactions are effected and billed through the date of settlement, amounts are primarily unlinked. As DSIT increases its sales to customers outside of Israel, a greater portion of its receipts from customers will be settled in dollars. In 2015, we expect a significant portion of DSIT's sales to be settled in dollars. A significant majority of DSIT's expenses in Israel are in NIS (primarily labor costs), while a portion is in dollars or dollar-linked NIS.

The dollar cost of our operations in Israel may be adversely affected in the future by a revaluation of the NIS in relation to the dollar. In 2014 the appreciation of the dollar against the NIS was 12.0% while in 2013 the NIS appreciated against the dollar by 7.0%.

As of December 31, 2014, virtually all of DSIT's monetary assets and liabilities that were not denominated in dollars or dollar-linked NIS were denominated in NIS. In the event that in the future we have material net monetary assets or liabilities that are not denominated in dollar-linked NIS, such net assets or liabilities would be subject to the risk of currency fluctuations. At times, DSIT purchases forward contracts to attempt to reduce its exposure to currency fluctuations. Furthermore, \$6.4 million of our backlog of projects at December 31, 2014 are contracts and orders that are not denominated in US dollars.

In addition, our non-US dollar assets and liabilities (net liability of approximately \$0.3 million at December 31, 2014) in Australia at our GridSense subsidiary's Australian operations are also exposed to fluctuations in exchange rates. The dollar cost of our operations in Australia may also be adversely affected in the future by a revaluation of the Australian dollar in relation to the U.S. dollar. During 2014, the U.S. dollar appreciated against the Australian dollar by 8.3%. During 2013, the U.S. dollar appreciated against the Australian dollar by 13.8%.

# **SUMMARY QUARTERLY FINANCIAL DATA (Unaudited)**

The following table sets forth certain of our unaudited quarterly consolidated financial information for the years ended December 31, 2013 and 2014. This information should be read in conjunction with our Consolidated Financial Statements and the notes thereto.

	2013 First Quarter	Second Quarter	Third Quarter	Fourth Quarter	2014 First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenues	\$5,281	\$4,923	\$4,469	\$5,505	\$4,454	\$4,723	\$5,168	\$5,215
Cost of sales	3,098	2,969	2,722	3,996	3,024	3,447	3,235	3,216
Gross profit	2,293	1,954	1,747	1,509	1,430	1,276	1,933	1,999
Research and development expenses, net	1,103	1,314	1,015	844	727	731	677	579
Selling, general and administrative expenses	4,475	4,141	4,227	3,612	3,318	3,126	2,690	2,889
Impairments of goodwill, intangibles and loans	_	1,116	5,615	_	_	649	_	1,124
Restructuring and related charges								