

ACORN ENERGY, INC.  
Form 10-K  
March 17, 2014  
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UNITED STATES  
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, 2013

Commission file number: 0-19771

ACORN ENERGY, INC.  
(Exact name of registrant as specified in charter)

Delaware  
(State or other jurisdiction of incorporation or  
organization)

22-2786081  
(I.R.S. Employer Identification No.)

3903 Centerville Road, Wilmington, Delaware  
(Address of principal executive offices)

19807  
(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	Name of Each Exchange on Which Registered
Common Stock, par value \$.01 per share	The NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act:  
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the  
Exchange Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the  
Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was

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required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No "

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No "

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Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  
Yes  No

As of last day of the second fiscal quarter of 2013, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$143.2 million based on the closing sale price on that date as reported on the NASDAQ Global Market. As of March 10, 2014 there were 22,189,877 shares of Common Stock, \$0.01 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

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.”

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AquaShield™, AquaShield-ER™ and PointShield™ are trademarks of our DSIT Solutions Ltd. subsidiary. GridSense®, HighV™, GridInSite™, CableIQ®, PowerMonic™, BreakerIQ®, LineIQ®, TransformerIQ®, DemandIQ™ and DistributionIQ® are trademarks of our GridSense subsidiaries. LazerLok™ is a trademark of our US Seismic Systems, Inc. subsidiary. OmniMetrix™, SmartService™, OmniView™, OmniLink™, and OmniScope™ are trademarks of our OmniMetrix, LLC subsidiary.

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PART I

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 four businesses is focused on helping its customers achieve greater productivity, reliability, security and efficiency.

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

Oil and Gas Sensor Systems (formerly known as Energy and Security Sensor Systems). These products and services are provided by our US Seismic Systems, Inc. subsidiary ("USSI") which develops and produces "state of the art" fiber optic seismic sensing systems for enhancing the production of oil and gas from unconventional fields (requiring hydrofracking) and 4D seismic monitoring.

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

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

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

During 2013, each of the four 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 Cathodic Protection ("CP") activities in our OmniMetrix subsidiary.

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.

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## 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. Our OmniMetrix's activities were acquired in February 2012. Accordingly, there are only partial comparative results reported for these activities for the year ended December 31, 2012.

	Year ended December 31, 2013					
	DSIT	OmniMetrix	GridSense	USSI	Acorn	Total
Revenues	\$13,065	\$2,197	\$5,026	\$1,468	\$—	\$21,756
Cost of Sales	8,624	963	3,198	3,815	—	16,600
Gross profit	4,441	1,234	1,828	(2,347 )	—	5,156
Gross profit margin	34	% 56	% 36	% (160 )%		24 %
R& D expenses, net of credits	1,511	647	2,118	3,899	—	8,175
Selling, general and administrative expenses	3,328	4,544	3,516	3,360	5,068	19,816
Impairment of intangibles	—	6,731	—	—	—	6,731
Restructuring and related charges	—	795	594	—	—	1,389
Operating loss	\$(398 )	\$(11,483 )	\$(4,400 )	\$(9,606 )	\$(5,068 )	\$(30,955 )
	Year ended December 31, 2012					
	DSIT	OmniMetrix	GridSense	USSI	Acorn	Total
Revenues	\$13,632	\$661	\$3,662	\$1,464	\$—	\$19,419
Cost of Sales	8,563	474	2,694	2,485	—	14,216
Gross profit	5,069	187	968	(1,021 )	—	5,203
Gross profit margin	37	% 28	% 26	% (70 )%		27 %
R& D expenses, net of credits	1,048	341	1,624	3,577	—	6,590
Selling, general and administrative expenses	3,245	2,490	4,550	3,826	5,250	19,361
Operating income (loss)	\$776	\$(2,644 )	\$(5,206 )	\$(8,424 )	\$(5,250 )	\$(20,748 )
	Three months ended December 31, 2013					
	DSIT	OmniMetrix	GridSense	USSI	Acorn	Total
Revenues	\$3,434	\$588	\$1,483	\$320	\$—	\$5,825
Cost of Sales	2,615	228	1,153	1,129	—	5,125
Gross profit	819	360	330	(809 )	—	700
Gross profit margin	24	% 61	% 22	% (253 )%		12 %
R& D expenses, net of credits	365	148	331	995	—	1,839
Selling, general and administrative expenses	825	876	809	982	1,103	4,595
Impairment of intangibles	—	—	—	—	—	—
Restructuring and related charges	—	23	—	—	—	23
Operating loss	\$(371 )	\$(687 )	\$(810 )	\$(2,786 )	\$(1,103 )	\$(5,757 )
	Three months ended December 31, 2012					
	DSIT	OmniMetrix	GridSense	USSI	Acorn	Total
Revenues	\$3,598	\$273	\$778	\$147	\$—	\$4,796
Cost of Sales	2,162	158	1,051	396	—	3,767
Gross profit	1,436	115	(273 )	(249 )	—	1,029
Gross profit margin	40	% 42	% (35 )%	(169 )%		21 %
R& D expenses, net of credits	259	133	510	917	—	1,819



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Selling, general and administrative expenses	1,021	957	1,041	1,228	1,223	5,470
Operating income (loss)	\$ 156	\$(975 )	\$(1,824 )	\$(2,394 )	\$(1,223 )	\$(6,260 )

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

Our Oil and Gas Sensor Systems segment (previously known as the Energy and Security Sensor Systems segment) is conducted through USSI, a Delaware corporation based in Chatsworth, California which was established in October 2007. USSI is focused on developing and producing “state of the art” fiber optic sensing systems for the energy market. We made our initial investment in USSI in November 2009 and currently own approximately 95.7% of USSI upon conversion of currently held USSI preferred stock.

USSI's primary focus is to develop and produce “state of the art” fiber optic sensing systems for unconventional oil and gas (hydrofrac) production monitoring and 4D seismic monitoring. USSI's patented ultra-high sensitivity fiber optic sensors are being designed to replace the legacy expensive, unreliable, and bulky electronic sensors currently in widespread use today with small, low cost, ultra-reliable, and inherently-safe fiber optic sensors. USSI's fiber optic sensors are designed to replace the legacy electronic sensors which cannot meet the demanding performance requirements needed for the new unconventional oil and gas recovery techniques that are driving the worldwide energy revolution.

### Products and Services

USSI's new fiber optic sensing systems have been designed to provide users with a competitive advantage over those relying on existing sensor technology. USSI's fiber optic sensors can provide the ability to monitor the fracking process while improving production efficiency at a fraction of the cost of competing technology. Monitoring with USSI's sensors can also allow fracking companies to minimize potential environmental damage caused by fracking by providing a warning upon the detection of fracking events occurring outside of the desired area. As further described below, primary product lines for which USSI is currently developing products include downhole fiber optic sensor systems for hydrofrac monitoring used in unconventional oil and gas exploration and recovery, and 4D seismic reservoir monitoring systems. We believe USSI has demonstrated the highest performance down-hole seismic sensor system systems in the oil and gas industry. Based on laboratory and field data available to us, we believe that USSI's sensor systems provide the greatest sensitivity (improved signal to noise ratio), widest bandwidth (detects all signals of interest), lowest noise floor (detects quieter signals) and can operate at the highest temperatures as compared to other seismic sensors available today for use in the oil and gas industry.

Hydrofrac (microseismic) monitoring. The major oil companies are increasingly focusing on horizontal drilling techniques combined with hydro fracking to produce the world's vast tight oil and gas shale reserves. Of the over 35,000 wells fracked annually in the U.S. as reported by the EPA in 2011, we believe that less than 3% are monitored using micro-seismic techniques, in large part due to high cost, poor reliability and high temperature limitations associated with the current sensor technology. According to a 2012 survey by the oilfield research firm Welling & Co. of decision makers within the petroleum operating companies engaged in hydraulic fracture and fracture mapping services, 73% of respondents said the root cause of frac jobs not meeting performance expectations was attributed to a failure to understand the subsurface. We believe that the only way to improve understanding of the subsurface, is via seismic monitoring with sensors specifically designed to detect and locate microseismic events.

USSI recently participated in a competitive, multi-company/multi technology shootout hosted by a supermajor oil company. The supermajor hosted the shootout to determine the best sensor technology to be used for microseismic (hydrofrac) monitoring of their vast unconventional oil and gas fields. USSI's technology was judged as superior to the other competitors and USSI was the only company selected by the supermajor for follow-on qualification testing. This evaluation is currently ongoing and has included a high frequency downhole test that validated the superiority of USSI's wide bandwidth sensor. The evaluation culminates in a full-scale field validation involving two USSI downhole arrays in two deep depth, high temperature wells for microseismic monitoring of hydrofracking currently scheduled to commence later this year. If successful, USSI believes that this will lead to a potential large field rollout

by the supermajor.

Leading industry participants previously indicated to us that they would monitor all their frac jobs if equipment cost can be reduced by 75% below the cost of monitoring with the traditional technology (which we believe is achievable by utilizing USSI fiber optic sensor systems). Based on our current understanding of the marketplace and customer constraints, we cannot predict the pace or rate of adoption. We remain optimistic, however, that the market for advanced seismic monitoring will nevertheless be sizable based upon current pricing of \$250,000 (for a 10-level system) to \$1.0 million for a larger (40-level) monitoring system. According to a recent survey by Welling & Company, up to 40% of the unconventional fields in the US are high temperature. Since USSI's system is the only one on the market capable of operating at high temperature, USSI is investigating the possibility of charging higher prices for high temperature systems.

4D Reservoir Monitoring. In order to optimize production out of operating fields, exploration and production companies are keen to utilize technologies that allow them to understand how the reservoir is changing over time and how it is responding

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to enhanced recovery techniques like water injection and CO<sub>2</sub> flooding. To produce more oil from these existing fields, increased use of 4D seismic techniques (repeated 3D seismic images to monitor the movement of oil reservoir fluids over time) are planned. For 4D to be cost-effective, permanently-installed seismic sensors are needed. Current mainstream oilfield seismic sensing systems are based upon 50 year-old technology that is too costly and unreliable for permanent installations. USSI's fiber optic seismic sensors are specifically designed to meet the demanding performance, cost, and reliability requirements needed for permanent installation and advanced 4D seismic analysis.

Fiber optic perimeter security. USSI has developed an all-optical security system based upon a microphonic cable that can be mounted on a fence, buried along a border/perimeter, or placed underwater in a harbor. We believe the USSI fiber optic microphonic cable is the most sensitive available as it can detect disturbance signals that are 100 times quieter than competing systems. In addition, the USSI system can detect and classify multiple simultaneous events. While USSI continues to make nominal sales to security customers, we are not currently engaged in actively developing and marketing systems for the security market.

## Customers and Markets

USSI targets its products into the oilfield geophysics market, which according to Barclays Capital 2011 E&P Spending report has a \$16-\$19 billion annual market size, of which approximately 10-15%, or approximately \$1.6 to \$2.9 billion is for equipment such as seismic sources and sensors. USSI's potential customers are primarily the oilfield service companies. According to the PFC Energy (an IHS Inc. company) 2012 rankings, some of the leading oilfield service companies are Schlumberger, Halliburton, Baker Hughes, Ensco, Weatherford and CGG Veritas. To date, we have not delivered a product for commercial deployment, as all of our sales have been for trials or pilot projects which has often required significant engineering and design costs in order to meet customer requirements, often resulting in a negative gross margin. We are currently focused on completing what we believe are the final steps toward having a commercial product that we hope will lead to reference customers. As a result of several recent customer trials, USSI believes that its products may be of particular interest to those oilfield services companies supporting hydro-fracking in high temperature fields. According to a 2012 Welling & Co. survey, approximately 40% of the operators reported that they will encounter maximum temperatures in excess of 250° Fahrenheit in their future frac jobs. USSI's products are also designed for mid temperature (150-250° Fahrenheit) and low temperature (less than 150° Fahrenheit) deployments and have been field tested repeatedly under those conditions.

## Competition

Oil & Gas. USSI's primary competition comes from oilfield equipment providers using conventional retrievable downhole sensor technology. This technology is well-proven and widely used. The leaders include OYO Geospace Corporation, Sercel S.A., and ION Geophysical Corporation. Our target markets are the emerging microseismic monitoring and permanent downhole seismic sensor markets. The existing conventional technology is not suited for these applications for the following reasons:

• **Cost** - downhole digital sensor arrays using existing technology cost \$4M to \$6M per system. The equivalent USSI downhole system sells for a fraction (typically one-third) of that price.

• **Reliability** - existing technology requires expensive downhole electronics that cannot be serviced or repaired if permanently installed. The USSI system has no downhole electronics.

• **High Temperature Operation** - Many of the downhole applications require sensors to operate at temperatures up to 400° Fahrenheit which is well within USSI's capabilities. There are no digital downhole systems on the market capable of operating at these temperatures.

Frequency Bandwidth - The limited frequency range of the legacy downhole seismic sensors limits their ability to capture the very low frequency events or the high frequency events commonly associated with microseismic monitoring during hydrofracking, missing up to 90 per cent of the microseismic signals. USSI's wide bandwidth sensor is designed to capture the majority of the microseismic signals.

Noise Floor - USSI's downhole sensors have the lowest noise floor across the frequency range of interest for microseismic monitoring applications. This enables the detection of very quiet signals.

USSI also has competition from other oilfield fiber optic sensor companies such as Stingray Geophysical Ltd. (Stingray), Weatherford International Ltd., and Petroleum Geo-Services ASA (PGS). We believe that some of our competitors use early generation fiber optic sensor technology which is expensive and difficult to manufacture. In another case, the highest reported performance of one competitor is significantly less than published USSI performance. Recently, distributed acoustic sensing

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(DAS) systems using fiber optics have been introduced for downhole monitoring. These systems have performance specifications similar to those currently being used by USSI for perimeter security applications. USSI is aware of the performance of DAS technology and believes it lacks the sensitivity and directionality needed for downhole seismic or microseismic monitoring.

## Intellectual Property

USSI invests significant resources in product development and research in order to protect its future competitiveness in the marketplace. Keeping proprietary information safe from unauthorized use or disclosure is an important objective. In order to protect its proprietary know-how and technology, USSI uses a combination of patents, trade secrets, contracts, and trademarks. However, some of USSI's know-how and technology may not be patentable. To protect its rights, USSI 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 USSI's trade secrets, know-how or other proprietary information are fully safeguarded. Whenever intellectual property is developed internally or acquired, USSI will evaluate and determine the optimal mix of controls to protect itself. USSI owns seven U.S. patents and two U.S. trademarks. Currently, there are 20 patent applications and one trademark application pending with the US Patent and Trademark Office. Most of the patent applications have also been nationalized for examination in foreign countries. USSI has also licensed 4 key patents from Northrop Grumman related to the electronics associated with optical sensing technology.

## Facilities

USSI's activities are conducted in approximately 29,000 square feet of office and production space in the San Fernando Valley (a suburb north of Los Angeles, CA) under a lease that expires in September 2016. This includes 8,600 square feet of space leased in July 2013 which is expected to be used for production of anticipated commercial orders. USSI has not yet prepared this additional space for production. If the pace of commercialization does not increase, we may explore opportunities to sub-lease this space. We believe USSI's facilities are sufficient for expected expanding production requirements for the near future. In the future, if we receive multiple follow-on orders from our proof-of-concept projects, it may be necessary to seek expanded or new facilities, and whether they will be available at such time, location and on terms acceptable to USSI cannot be determined. Any inability to expand our production facilities as required to meet customer demand could result in loss of, or a delay in fulfilling, orders and loss of associated revenue.

## ENERGY & SECURITY SONAR SOLUTIONS – DSIT SOLUTIONS LTD.

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

## Products and Services

DSIT's Energy & Security Sonar Solutions activities are focused on two areas – sonar and acoustic solutions for energy and security markets and other real-time and embedded hardware and software development and production.

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™ Diver Detection Sonar (“DDS”) – DSIT has developed an innovative, cost-effective DDS system, the AquaShield™, 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™ DDS system is fully automatic and customizable, and requires intervention of a security person 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.

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- PointShield™ Portable Diver Detection Sonar (PDDS) – The PointShield™ 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™ is a cost-effective system tailored to meet the needs of customers, whose main concern is portability and flexibility.
- 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.

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 USSI’s focus on its oil and gas activities, we foresee some slowdown in the development of the PAUSS in the near future. DSIT and USSI may request an extension of this development project, though we have no assurance that such an extension would be granted. In addition to its joint efforts with USSI in underwater site protection, DSIT is exploring solutions for the perimeter fiber optic security market. DSIT and Ramot, the technology transfer company of Tel-Aviv University, recently were jointly awarded a grant from MEIMAD (a collaborative program between the Israeli Ministry of Defense, the Office of the Chief Scientist at the Ministry of Economy and the Ministry of Finance, 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.

## Other Real-Time and Embedded Solutions

Additional areas of development and production in real-time and embedded hardware and software include:

- Applications - 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 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, and we supply this multi-disciplinary field in the integration of digital and analog technologies, image processing and intricate logic development.
- Modems, data links 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.

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DSIT's other operations include IT and consulting activities whose results are not included in the Energy & Security Sonar Solutions segment.

### 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.

DSIT is planning to expend significant resources to integrate its active sonar diver detection system with USSI's fiber optic sensors to create an active-passive sonar diver detection system (PAUSS) as well as working to develop fiber-optic land-based perimeter security systems.

All of this segment'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 43% in 2009 to 81% in 2012 before decreasing to 41% in 2013. The decrease in 2013 was due to the near completion of a number of non-Israeli projects during 2013. We expect this segment's non-Israel based revenues to increase again in 2014 following the DSIT's recently disclosed contract with an unnamed customer for the supply, operation and support of an advanced underwater acoustic monitoring system (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 within Asia and Central America.

In 2014, we anticipate expanding our sales and marketing efforts for our entire portfolio of naval solutions including our Shield family of products - AquaShield™, AquaShield-ER™ (Extended Range), PointShield™ and our Mobile Acoustic range (MAR) as well as the 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.

In 2013, three customers accounted for approximately 55% of segment revenues (25%, 20% and 10%). Two of the customers, the Israeli Ministry of Defense and the Republic of Azerbaijan accounted for 14% and 11% , respectively (\$2.9 million and \$2.3 million) of Acorn's consolidated revenues in 2013. In addition, two other customers in this

segment also represented approximately 40% (approximately 20% and 20% or \$1.2 million and \$1.1 million, respectively) of Acorn's consolidated accounts receivable at December 31, 2013. A substantial portion of such amounts were received in the first quarter of 2014. The loss of any one or more of these customers or the lack of a replacement project upon the completion of projects to these customers could have a material adverse effect on this segment.

#### 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™ has achieved better performance regarding

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detection range and automatic classification, than its main competitor. DSIT has sold its AquaShield™ 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 anticipate that we may apply for certain patents during the course of 2014.

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 June 2016. We believe that DSIT's premises, which include a new integration and production lab built in 2013, will be sufficient to handle any potential growth for the near future.

### 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 Australia and has utility customers throughout the world, including the Americas, Asia, Australia, Africa, and the United Kingdom.

During the second quarter of 2013, GridSense restructured its operations in both its US and Australian entities. This action was taken primarily in order to improve efficiency based on GridSense's revenue mix and skills mix. In

Australia, personnel reductions were made and operations were moved to a smaller facility. Following the restructuring, GridSense's Australian operations no longer have a production line and have minimal research and development activities. Substantially all 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

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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®** - The Transformer IQ® 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™** - The PowerMonic™ 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™ Camera** - HighV™ 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™** - 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™** - Uses TransformerIQ® to detect overload conditions at the poletop transformer and, in conjunction with proprietary algorithms developed at San Diego Gas and Electric, perform direct load shedding within the household.

## Customers and Markets

The industry in which GridSense operates is characterized by intense competition from both large, established companies as well as smaller companies with specialized offerings. Strategically important markets include North America, South America, Asia and South Africa. Having invested heavily in an organization to support its customers in the U.S. and Canada, GridSense has grown its customer base from just a handful a few years ago to nearly 400 utility companies ranging from municipal utilities and cooperatives to large investor owned utilities. GridSense has not, however, generally been able to leverage market exposure into high volume sales. We believe this is due to the fact that until recently, GridSense's focus had been on increasing the number of pilots which, though having potential for sizable orders, required considerable engineering resources and customization effort. Furthermore, pilot programs (consisting of deployment of one or more products on a test basis) generally last between three and eighteen months. GridSense's new management has realigned sales and engineering efforts and is focusing on fewer and more standardized opportunities with the most perceived likelihood for successful deployment and commercial-scale orders. We attribute the recent receipt of large orders in both North America and Australia to this new strategy. GridSense has recently received orders from five different utilities ranging from \$200,000 to \$1.1 million. These orders either shipped in the fourth quarter of 2013 or were received in the first quarter of 2014 (see Recent Developments). North America is characterized by a large number of electricity suppliers operating over a vast geographic territory. We are currently pursuing deployment opportunities in these markets, including supporting local pilots that either were underway or meet our new participation criteria. We have no assurance that any of our pilot programs will ultimately result in large scale roll-out programs.

GridSense utilizes a global network of resellers, including rental companies, electrical engineering firms, distributors, independent manufacturers' representatives and agents. By leveraging off this indirect sales network, GridSense has expanded into international territories while minimizing the risk and financial burden of maintaining a direct sales organization. In North America, GridSense employs two sales professionals and two application sale engineers. Within Australia, we sell primarily the PowerMonic™, but also the Line IQ® and Transformer IQ® range of products directly to electric utilities and industrial customers.

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

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last between three and eighteen months. We have no assurance that such pilot programs will ultimately result in large scale roll-out programs.

In 2013, two customers (both serviced from GridSense's U.S. operations) accounted for approximately 40% (approximately \$1.0 million from each customer) of GridSense's total revenues. These two customers accounted for approximately 58% of GridSense's U.S. based revenues (\$3.4 million). Three customers accounted for approximately 68% (\$1.1 million of GridSense's Australian based revenues (\$1.6 million)). The balance of GridSense's revenues in 2013 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. Price, quality and experience are the primary competitive factors.

### 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 has facilities in West Sacramento, CA and Sydney, Australia. The leased facility in West Sacramento covers approximately 11,900 square feet. The facility in West Sacramento is used for production, development and administrative activities. The leased facility in Sydney has approximately 1,500 square feet. The facility in Sydney is primarily a distribution and service center. GridSense management believes both 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 leases in West Sacramento and Sydney expire in February 2016 and September 2016, respectively.

### POWER GENERATION MONITORING - OmniMetrix, LLC

In accordance with applicable accounting standards, we began consolidating the results of OmniMetrix beginning February 15, 2012, the date we acquired OmniMetrix. OmniMetrix is a Georgia limited liability company established in 1998 based in Buford, Georgia that develops and markets wireless remote monitoring systems and services for two



markets - stand-by power generators and cathodic protection for the gas pipeline industry. Acorn owns 100% of OmniMetrix.

#### Products & Services

In the Power Generation ("PG") market, OmniMetrix sells a line of devices built on its baseline G8500 wireless remote monitor. This device is designed to be broadly applicable across all brands and models of emergency power generators. The G8500 product family provides the ability to identify whether an emergency generator is capable of operating as expected. In

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2012, OmniMetrix designed and gained approval from PTCRB and AT&T for a new 4G data radio module, replacing the 2G technology used since 2007. This new device includes GPS functionality for the first time, enabling the company to bring a mobile asset tracking functionality into the market, with primary focus on mobile generators and related equipment. OmniMetrix' G8700 product line is designed specifically for this mobile market segment, and offers robust functionality and ultra-low power consumption, a critically important feature for mobile equipment.

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

### Customers and Markets

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™ 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.

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. In 2013, OmniMetrix opened its 24 x 7 Network Operation Center ("NOC"). With the NOC, OmniMetrix coupled its data analysis capabilities with an active call center environment, giving its customers a new level of support.

OmniMetrix' PG monitors have been installed on generators from original equipment manufacturers ("OEMs") such as Caterpillar, Kohler, Generac, Cummins, MTU Energy and other generator manufacturers. Based on both published and industrial sources, we estimate that the U.S. emergency power generation marketplace consists of at least 100,000 industrial generators and 200,000 residential generators per year. These new machines join an installed base of approximately two million generators. While new generators provide more useful diagnostic data thanks to their computerized controls, older machines have an ever greater need for basic monitoring due to their aging systems. Some estimates place the world market for monitoring at over 10 million installed generators.

OmniMetrix provides dual value propositions to the generator service organizations as well as to the machine owner. The dealers benefit from the receipt of performance data and status conditions from the generators they service for their customers that allows the dealer service organization to be proactive in their delivery of service to their customers, as well as to implement the OmniMetrix SmartService™ approach to analyzing the remote machines before dispatching a service truck. Since the majority of service and warranty costs are incurred from service people driving trucks, preemptive analysis of customer site conditions prior to dispatch can reduce their labor cost

consequentially. While some larger dealers embraced OmniMetrix's business model (a recurring revenue model where monitors are sold at or below cost in exchange for customer commitments for fixed term monitoring contracts), 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

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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 are currently providing reports and information to end-user customers to assist them in their environmental compliance, and we have received positive feedback from these customers.

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

Within the CP pipeline marketplace, there are no OEM competitors, but there are several independent monitoring companies similar to OmniMetrix. While we believe that OmniMetrix systems provide greater functionality than its competitors, those competitors offer a broader range of corrosion products beyond monitoring enabling better channel penetration than OmniMetrix can accomplish. In 2013, one customer in OmniMetrix's CP segment accounted for approximately 19% (approximately \$420,000) of OmniMetrix's revenue. The loss of this customer could have a material effect on the overall revenues of OmniMetrix. We do not anticipate significant growth in this marketing channel due to the crowded competitive field, although we have several repeat customers for which we are monitoring hundreds of units.

In 2013, one customer in its PG segment accounted for approximately 11% (approximately \$230,000) of OmniMetrix's total revenue. In 2013, this customer has indicated that it would be disconnecting its PG monitoring units over a period of time. Accordingly, OmniMetrix recorded a charge of \$1.1 million in the second quarter with respect to the impairment of the customer relationship. During 2013, this customer disconnected approximately one-third of its approximately 1,500 units. We do not know what the pace of disconnects will be in 2014 or whether it will continue. Any further loss of units monitored for this customer could have a material effect on the overall revenues of OmniMetrix. To mitigate this risk, the company is aggressively attempting to increase its penetration rate, its sales pipeline and to support a larger base of customers. The balance of OmniMetrix's revenues in 2013 were generally spread across a broad base of customers.

### 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:

- (1) 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. 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, 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™, 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

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market) as well as developing more sophisticated, diagnostic products and custom solutions for commercial clientele.

Within the CP pipeline marketplace, there are no OEM competitors, but there are several independent monitoring companies similar to OmniMetrix such as Abriox, Elecsys, and American Innovations. While we believe that OmniMetrix systems provide greater functionality than its competitors, those competitors offer a broader range of corrosion products beyond monitoring enabling better channel penetration than OmniMetrix can accomplish. We do not anticipate significant growth in this marketing channel due to the crowded competitive field.

## 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 taken an impairment charge in connection with its restructuring in the third quarter of 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.

## BACKLOG

As of December 31, 2013, our backlog of work to be completed and the amounts expected to be completed in 2014 were as follows (amounts in millions of U.S. dollars):

	Backlog at December 31, 2013	Amount expected to be completed in 2014
DSIT Solutions	\$13.4	\$7.0
GridSense *	0.8	0.8
OmniMetrix	1.8	1.6
USSI	2.5	2.5
Total	\$18.5	\$11.9

\* See Recent Developments.

## RESEARCH AND DEVELOPMENT EXPENSE, NET

Research and development expense recorded for the years ended December 31, 2011, 2012 and 2013 for each of our consolidated subsidiaries is as follows (amounts in thousands of U.S. dollars):



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	Years ended December 31,		
	2011	2012	2013
DSIT Solutions	\$568	\$1,048	\$1,511
GridSense	1,370	1,624	2,118
OmniMetrix*	—	341	647
USSI	1,057	3,577	3,899
Total	\$2,995	\$6,590	\$8,175

\* OmniMetrix was acquired on February 15, 2012. Accordingly, the research and development expense recorded with respect to OmniMetrix relates only to the period after its acquisition.

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, 2013, we employed a total of 205 employees, including 179 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, 2013			
	U.S	Australia	Israel	Total
DSIT Solutions	—	—	62	62
GridSense	28	9	—	37
OmniMetrix	26	—	—	26
USSI	50	—	—	50
Acorn	4	—	—	4
Total	108	9	62	179

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

	Full-time employee count at December 31, 2013			Total
	Production, Engineering and Technical Support	Marketing and Sales	Management, Administrative and Finance	
DSIT Solutions	49	3	10	62
GridSense	24	7	6	37
OmniMetrix	14	9	3	26
USSI	42	2	6	50
Acorn	—	—	4	4
Total	129	21	29	179

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

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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%.

In Australia, all employers are required to make contributions to retirement investment funds benefiting employees called Superannuation. GridSense is required to pay 9% of salary as a contribution toward Superannuation funds nominated by its employees. Further, the Australian Government stipulates that employees are entitled to severance pay if their position is terminated as a result of company restructuring.

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 21 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.

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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, each of our companies experienced delays in anticipated orders, lower than planned sales volume and in the case of USSI, 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 2011, 2012 and 2013, we had operating losses of \$8.0 million, \$20.7 million and \$31.0 million, respectively. Cash used in operating activities of continuing operations in 2011, 2012 and 2013 was \$7.8 million, \$22.2 million and \$17.8 million, respectively.

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 USSI and possibly our other subsidiaries. While we plan for GridSense and OmniMetrix (as a combined operating unit) as well as DSIT to be net cash flow neutral going forward, each of these companies may from time to time need temporary support for their financing needs. While we have taken steps to reduce our corporate cash expenses and currently have enough cash on hand to fund our operations for at least the next 12 months depending on our corporate strategy, we may need additional funds to finance future activity we wish to undertake. We do not know if such funds will be available if needed on terms that we consider acceptable. We may have to limit or adjust our operating strategy in order to continue to pursue our corporate goals.

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, Jim Andersen, Joseph Musanti, Benny Sela 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.

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

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

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

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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 will have to provide our first report in May 2014. A challenge to the rules filed by the National Association of Manufacturers and the U.S. Chamber of Commerce in the U.S. Court of Appeals for the District of Columbia was unsuccessful and the rules remain in force. We thus have determined that conflict minerals are necessary for the functionality of many of our products, and have taken, and will continue to undertake, prescribed steps to determine their origin. We anticipate that fulfilling our compliance obligations with the rules will continue to be both time consuming and potentially costly. Although the exact amount cannot be determined at this time, commentators have suggested compliance could cost companies like ours as much as several hundreds of thousands of dollars per year. Although 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

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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. Several law firms issued press releases for the apparent purpose of seeking clients to bring claims against us in connection with the impairment and restructuring charges we announced at OmniMetrix last fall, but to date no lawsuits have been filed against us. We believe we have abided by all applicable laws and would vigorously defend any such suits were they to be commenced. 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.

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, 2013, we recorded impairments of \$1.9 million and \$4.8 million of goodwill and intangibles, respectively, 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.

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

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

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

As a result, we cannot assure you that significant deficiencies or material weaknesses in our internal control over financial reporting will not be identified in the future. Any failure to maintain or implement required new or improved controls, or any difficulties we encounter in their implementation, could result in significant deficiencies or material weaknesses, cause us to fail



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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.

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

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

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

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 (particularly at USSI with respect to cables), 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 the Company to concentrations of credit risk, consist principally of cash and cash equivalents, short-term deposits, restricted deposits and accounts receivable. The Company's cash, cash equivalents and restricted cash deposits were deposited with U.S., Israeli and Australian banks and other financial institutions and amounted to \$17.6 million at December 31, 2013. The Company uses major banks and brokerage firms to invest its excess cash, primarily in money market funds. The counterparty to the Company's 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 33% of the accounts receivable at December 31, 2013, were due from two customers which pay 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 77% of the balance in unbilled revenue at December 31, 2013 was due from four 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.

We are subject to examination of our income tax returns by the IRS and other tax authorities.

Our U.S. Federal income tax returns for the years ended December 31, 2011 through December 31, 2012 are currently under examination by the IRS. We believe this audit primarily relates to our net operating loss carryback which resulted in our recently received tax refund of approximately \$1.7 million. If the IRS were to disallow a portion of our tax losses our net operating losses for future years may be reduced. In addition, the examination could result in other positions we have taken being challenged by the IRS. We regularly assess the likelihood of an adverse outcome resulting from such examinations to determine the adequacy of our deferred tax asset valuation account. As of December 31, 2013, based on the technical merits of our tax return filing positions, we believe that the benefit of such positions should be sustained upon the resolution of our audit resulting in no significant impact on our consolidated financial position and the results of operations and cash flows.

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RISKS RELATED TO USSI

USSI has a limited operating history.

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

USSI has incurred net losses and may never achieve sustained profitability; it must monitor and potentially adjust expenses to keep them aligned with anticipated activities.

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

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

In the period since Acorn's initial investment in November 2009 through December 2012, we invested \$14.75 million directly in USSI. In 2013 we invested another \$6.0 million in USSI under two stock purchase agreements and advanced an additional \$1.4 million in contemplation of another stock purchase agreement. We anticipate investing an additional \$4.7 million in USSI during 2014 (of which \$1.3 million has already been transferred), which may increase over the course of the year depending on developments at the company. While USSI has an agreement with a bank for a \$1.5 million line-of-credit (which amount may increase to \$2.0 million if USSI meets certain conditions - see Liquidity), we have no assurance whether and to what extent USSI will have access to its entire bank facility as its availability is subject to certain financial and other covenants. We have no assurance that USSI's future capital needs will not exceed the amount of the credit line or the amounts Acorn is able to provide to USSI, or that USSI will generate sufficient cash flow in the future to fund its operations in the absence of additional funding sources. Furthermore, we may need to raise additional funds to fund USSI if revenues fail to meet or if costs exceed projections or to fund a rapid expansion to meet product demand, respond to competitive pressures or acquire complementary products, businesses or technologies. If additional funds are raised through issuance of Acorn equity

or debt convertible into Acorn equity this will dilute Acorn stockholders. If the funds are raised through the direct issuance of USSI equity or convertible debt securities to third parties, Acorn's percentage ownership of USSI would be reduced.

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

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

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

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

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

The announced full-scale test will be the first time our product has been deployed in deep depth high temperature well for microseismic monitoring and we may not have the same survivability or performance as experienced in our lab testing.

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

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

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

also not be determined. Failure to do so could result in delays or failures in meeting customer demand, resulting in a loss of customer confidence and orders. Such difficulties could materially and adversely affect the business, results of operations and financial condition of USSI.

Even if USSI is able to field a commercial a product, there can be no assurance that customers will purchase it. One of our goals for USSI, assuming that we can prove that our tool works, is demonstrating its value to, and obtaining orders from, customers. Leading industry participants previously indicated to us that they would monitor all their frac jobs if equipment cost can be reduced by 75% below the cost of monitoring with the traditional technology (which we believe is achievable by utilizing USSI fiber optic sensor systems). Based on our current understanding of the marketplace and customer constraints, we cannot predict the pace or rate of adoption. We remain optimistic, however, that the market for advanced seismic monitoring will nevertheless be sizable based upon current pricing of \$250,000 (for a 10-level system) to \$1.0 million for a larger (40-level) monitoring system. USSI is investigating the possibility of implementing a rental fleet or adopting other strategies to accelerate the pace of adoption but no assurance can be given that these efforts will be successful.



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

USSI's products incorporate "state of the art" technologies. As such, in many cases there are a limited number of suppliers of key components. In particular, USSI currently relies on a single source for the supply of one of the basic circuit boards used in its high-end interrogators for some of its technologically advanced product offerings. USSI has licensed alternative interrogator technology that is much more advanced from Northrop Grumman that was initially developed for large-scale U.S. Navy fiber optic sonar applications and intends to field its own high performance interrogator during the first half of 2014. Any development delays could materially and adversely affect USSI's business, results of operations and financial condition. Where possible, USSI attempts to develop secondary back-up suppliers for key components. USSI also relies upon a single supplier for the fiber optic cables used in its systems. Due to the increasing demand for fiber optic cables in the oil & gas industry, USSI is experiencing longer lead times in obtaining these cables for its products, which could delay future shipments. Therefore, USSI intends to develop and qualify a second source for these cables, however, there can be no assurance as to whether or when such efforts will be successful.

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

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

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

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

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

The export of some of USSI's products may be subject to export controls imposed by the U.S. government and administered by the U.S. Departments of State and Commerce. In certain instances, these regulations may require pre-shipment authorization from the administering department. For products subject to the Export Administration Regulations ("EAR") administered by the Department of Commerce's Bureau of Industry and Security, the requirement for a license is dependent on the type and end use of the product, the final destination and the identity of the end user. All USSI products that are exported are subject to EAR; however, most of USSI's equipment is considered

EAR99. EAR99 items generally consist of low-technology consumer goods and do not require a license in many situations. However, if USSI were to attempt to export an EAR99 item to an embargoed country, to an end-user of concern (as defined by the U.S. Department of Commerce) or in support of a prohibited end-use (as defined by the U.S. Department of Commerce), USSI would be required to obtain a license.

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

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

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

Limited Protection of Proprietary Technology; Risks of Infringement.

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

## RISKS RELATED TO DSIT SOLUTIONS

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

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

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.

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. 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 2013 the NIS strengthened in relation to the U.S. dollar by 7.0%.

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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 2013, approximately 40% of DSIT's total revenues were concentrated in two customers. One of these customers is expected to continue to make up a significant portion of DSIT's revenues and cash flow for 2014. DSIT is expecting to complete a project for the second customer in mid-2014. While DSIT does expect future follow on orders from this customer, the timing and amounts cannot be predicted. DSIT's recently announced project for the supply, operation and support of an advanced underwater acoustic monitoring system effectively replaces the abovementioned projected scheduled for completion in 2014 in the company's backlog of projects. 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, 2013, DSIT had approximately \$1.2 million of performance and bank guarantees outstanding. In addition, DSIT had on

deposit at two Israeli banks approximately \$0.3 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

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

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

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

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

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

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

DSIT is currently investing significant amounts of capital in creating the infrastructure to support its entrance into the fiber optic security market. DSIT planned to do this in a joint development project with USSI. Because USSI has been focused on the opportunities in the oil and gas market, work on the joint DSIT-USSI project (known as PAUSS) has slowed. DSIT has 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. DSIT (together with USSI) may request an extension of this development project, though we have no assurance that such an extension would be granted. If the extension is not granted, 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. MEIMAD 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 \$650,000, and is 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 phase milestone (a working prototype of an Interrogator and signal processing software). If OCS funds are unavailable and/or the project's first phase milestone do not occur 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 for the years ended December 31, 2011, 2012 and 2013. While GridSense has reduced its losses in 2013 compared to 2012 (despite the restructuring charge recorded in 2013) and it has a goal to be near 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.



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

During 2013, Acorn continued to provide funds for GridSense's working capital needs. During 2013, Acorn invested \$1.5 million in GridSense for its working capital needs plus an additional \$480,000 to help fund the costs of its restructuring. While we do not plan to invest additional equity into GridSense, we lent GridSense \$1,125,000 in the second half of 2013 of which \$850,000 was repaid to us by year-end with the balance being repaid in February 2014.

At the end of 2013, GridSense signed an amendment to its Loan and Security Agreement with a bank and expanded its line-of-credit to \$1.5 million. This amendment was conditioned upon Acorn agreeing to guaranty GridSense's liabilities to the bank. We have no assurance whether and to what extent GridSense will have access to the entire \$1.5 million facility as the availability is subject to a calculated borrowing base as well as certain financial and other covenants nor do we have any assurance that the bank will extend the facility past its expiration date of June 30, 2014. It is possible that GridSense will require working capital support beyond its bank facility during 2014 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, in particular USSI to whom we intend to concentrate deployment of our financial resources for the foreseeable future.

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

The primary market for GridSense's products and services is rapidly evolving which means that the level of acceptance of products and services that have been released recently or that are planned for future release by the marketplace is not certain. If the markets for GridSense's products and services fail to develop, develop more slowly than expected or become subject to intense competition, its business will suffer. As a result, GridSense may be unable to: (i) successfully market its current products and services, (ii) develop new products, services and enhancements to current products and services, (iii) complete customer installations on a timely basis or (iv) complete products and services currently under development. If GridSense's products and services are not accepted by its customers or by other businesses in the marketplace, GridSense's business and operating results will be materially affected. In addition, we can provide no assurance that GridSense will be successful in deriving significant revenue growth through its current strategy and marketing initiatives.

GridSense's products are subject to regulatory approvals.

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

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

Sales to utilities are generally characterized by long sales cycles.

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

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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 32% for the year ended December 31, 2013 and more than 45% in both 2011 and 2012). GridSense believes that growth and profitability will require additional expansion of sales in other markets, most notably the North American market. To the extent that GridSense is unable to expand sales into other markets in a timely and cost-effective manner, its business, operating results and financial condition could be materially adversely affected. In addition, even with the successful recruitment of additional personnel and international resellers, there can be no assurance that GridSense will be successful in maintaining or increasing international market demand for its products.

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

GridSense has operations in both the U.S. and Australia. Its Australian operations are subject to the volatility of the Australian dollar vis-à-vis the U.S. dollar. In 2013, the U.S. dollar strengthened by 13.8%, in 2012, the Australian dollar strengthened by 2.2% while in 2011 the Australian dollar was virtually unchanged vis-a-vis the U.S. dollar. While risks are somewhat mitigated by the fact that GridSense's Australian operation's sales and expenses are primarily denominated in Australian dollars, currency fluctuations may impact the translation of certain balance sheet items and ultimately affect its financial performance. During 2012, GridSense transferred substantially all of its production lines to the U.S. in order to minimize costs in Australian dollars. GridSense does not employ specific strategies, such as the use of derivative instruments or hedging, to manage its foreign currency exchange rate exposures.

GridSense's market is subject to rapidly changing technologies.

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

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

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

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

GridSense is still in the process of refining Grid InSite™. This product allows customers to monitor their networks on a system hosted by GridSense. While development costs expended to date are in line with expectations, we have no assurance that the final Grid InSite™ product will be completed within the expected time frame or budget currently anticipated. We further have no assurance that following the development of Grid InSite™, that GridSense will successfully be able to integrate it into its portfolio of products and be able to commercialize the applications. Furthermore, Grid InSite™ may require different organizational skillset and resources to penetrate the market. In

contrast to GridSense's traditional way of selling hardware and equipment, Grid InSite™ may give the company an opportunity to sell services and generate recurring revenue streams over time. This model may require upfront investment by the company which will be recovered through subscription revenue collected over time. As with any new product introduction there is always a risk in pace of adoption by customers. Grid InSite™ represents a new and unconventional way to sell to utilities. While the GridSense believes that there is a market for hosted software solutions it is unknown how utilities will accept this new method of procuring services.

#### 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

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one patent in Canada. Some of GridSense's know-how and technology may not be patentable. To protect its rights, GridSense requires employees, as well as select consultants, advisors and collaborators to enter into confidentiality agreements. While these agreements will provide some level of protection, they cannot provide absolute assurance that GridSense's trade secrets, know-how or other proprietary information are fully safeguarded. Whenever intellectual property is developed internally or acquired, GridSense will evaluate and determine the optimal mix of controls to protect itself.

**RISKS RELATED TO OMNIMETRIX**

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

OmniMetrix incurred a net loss of \$2.6 million in 2012 since our acquisition of it in February 2012 and used \$2.2 million of cash in its operations from such time through the end of 2012. In 2013, OmniMetrix incurred a net loss of \$11.5 million and used \$4.2 million of cash in its operations. We can provide no assurance that OmniMetrix will be able to generate sufficient revenues and cash flow to allow it to become profitable or to eventually sustain profitability or to have positive cash flows.

OmniMetrix's ultimate viability is dependent on our ability to execute an effective restructuring plan.

We have implemented a restructuring plan to align OmniMetrix expenses with revenue. We continue to believe that we offer an excellent product and that a significant market exists for our monitoring services. We developed a restructuring program that envisioned a fairly complete integration of OmniMetrix with GridSense that would combine its high margin recurring revenue feature with GridSense's historically larger but uneven sales volume to produce a machine-to-machine (M2M) asset that could ultimately increase shareholder value in the future while costing Acorn very little cash going forward. In view of the development of recent positive customer opportunities at OmniMetrix, we have reconsidered our decision not to provide funding to OmniMetrix and have approved a \$0.5 million working capital loan to it for 2014. We also have begun sharing resources between OmniMetrix and GridSense in areas such as information technology, and have identified other areas where potential synergies exist. In order to best position each company for growth in value, we will continue to evaluate the degree to which combining the businesses makes sense.

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

OmniMetrix currently provides its PG monitoring units at minimal or no costs to customers in order to accelerate the penetration rate. In the first year of a customer relationship, payments received cover the hardware and monitoring costs and provide minimal net cash flow. In subsequent years, the cash margins on monitoring renewals provide working capital for the company's future needs. This business model has not yet been proven to be sustainable. If the pace of the demand for these PG units is below our expectations, the service monitoring revenue received from these units may not be enough to cover the fixed expenses of the company.

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

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

If we have an increase in our 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

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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 \$1.0 million (through February 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. As noted above, Acorn has approved a working capital loan to OmniMetrix of \$0.5 million for 2014. If additional working capital support is required at OmniMetrix, Acorn will evaluate whether to provide another loan or seek third-party financing. 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 must realign overhead with expected revenue.

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

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

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

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

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

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

Cellular networks have evolved over time to offer more robust technical capabilities in both voice and data transmission. At the present time, the changes from the so-called "2G" to "3G" and "4G" service have resulted in only

limited service interruptions. OmniMetrix anticipates, however, that as these new capabilities come online, it will be necessary to have equipment that can readily interface with the newer cellular networks to avoid negative impacts on customer service. Not all of the costs associated with OmniMetrix's corresponding equipment upgrades can be passed on to customers and the increased expenses are expected to have a negative impact on OmniMetrix's operating results.

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

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



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

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

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

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

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

## 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 2013, our common stock closed at prices as low as \$3.02 and as high as \$9.81 per share. Fluctuations in our stock price may continue to occur in response to various factors, many of which we cannot control, including: general economic and political conditions and specific conditions in the markets we address, including the continued volatility in the energy industry and the general economy;

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

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

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.

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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 10, 2014, 22,189,877 shares of our common stock were issued and outstanding. As of that date we had 285,281 warrants outstanding and exercisable with a weighted average exercise price of \$3.18 and 995,373 options outstanding and exercisable with a weighted average exercise price of \$5.40 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 10, 2014, 447,273 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.

The \$10.4 million of proceeds (net of all transaction costs) raised in October 2013 may not be sufficient to allow us to execute our plans, due to possible delays in anticipated commercialization of our USSI products, cash needs at our other subsidiaries or the occurrence of one or more other events that require us to make significant expenditures. We may need to raise additional amounts to finance the plans for our USSI business herein. In such event, current investors will incur additional dilution in the value of their shares.

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ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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ITEM 2. PROPERTIES

Our corporate activities are conducted in approximately 3,900 square feet of office space in Wilmington, Delaware under a lease that expires in July 2017. The lease provides for annual rent of approximately \$69,400 in the first year with the annual rent increasing by approximately \$3,900 per year. We are also responsible for any incremental increases in operating expenses (primarily utilities) over a base year amount.

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. The current annual rent is approximately \$285,000.

GridSense operates facilities in West Sacramento, CA and Sydney, Australia. The West Sacramento 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 at the West Sacramento office increases 2% per year. The Sydney office occupies approximately 1,500 square feet of office space. The lease in Sydney expires in July 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 the third quarter of 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.

USSI's activities are conducted in approximately 29,000 square feet of office and production space in the San Fernando Valley (a suburb north of Los Angeles, CA) under a lease that expires in September 2016. The annual rent at this facility is approximately \$235,000. This includes a lease for an additional 8,600 square feet of space contiguous to its facilities in Chatsworth, California signed in July 2013. The additional space was expected to be used for production of anticipated commercial orders. If the pace of commercialization does not increase, we may explore opportunities to sublet this space. Whether and on what terms we may be able to do so cannot be determined at this time.



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ITEM 3. LEGAL PROCEEDINGS

None.

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ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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## PART II

ITEM MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND  
5. 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
2012:		
First Quarter	\$11.00	\$6.11
Second Quarter	13.20	7.74
Third Quarter	11.00	7.84
Fourth Quarter	9.24	7.06
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

As of March 10, 2014, the last reported sales price of our common stock on the Nasdaq Global Market was \$3.50, there were 106 record holders of our common stock and we estimate that there were approximately 4,700 beneficial owners of our common stock.

## Dividends

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

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

\* Special dividend



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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 2012 and 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.

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PERFORMANCE GRAPH

The following stock price performance graph compares the cumulative total return of the Company's Common Stock during the period December 31, 2008 to December 31, 2013, to the cumulative total return during such period of (i) the NASDAQ Composite Index and (ii) the Russell 2000 Index. The graph assumes that the value of the investment in our Common Stock and each index (including reinvestment of dividends) was \$100.00 on December 31, 2008.

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ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2011, 2012 and 2013 and consolidated balance sheet data as of December 31, 2012 and 2013 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, 2009 and 2010 and the selected consolidated balance sheet data as of December 31, 2009, 2010 and 2011 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.”

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## Selected Consolidated Statement of Operations Data:

	For the Years Ended December 31,				
	2009	2010	2011	2012	2013
	(in thousands, except per share data)				
Revenues	\$9,219	\$14,244	\$18,928	\$19,419	\$21,756
Cost of sales	5,264	8,200	12,015	14,216	16,600
Gross profit	3,955	6,044	6,913	5,203	5,156
Research and development expenses, net	457	965	2,995	6,590	8,175
Selling, general and administrative expenses	5,702	10,440	11,952	19,361	19,816
Impairments	81	1,166	—	—	6,731
Restructuring and related charges	—	—	—	—	1,389
Operating loss	(2,285	) (6,527	) (8,034	) (20,748	) (30,955
Finance income (expense), net	(71	) (224	) (26	) 57	122
Gain on sale of shares in Comverge	1,403	—	—	—	—
Gain on investment in GridSense	—	1,327	—	—	—
Distributions received from EnerTech	—	135	—	—	—
Loss on sale of EnerTech	—	(1,821	) —	—	—
Gain on sale of HangXing	—	—	492	—	—
Loss from operations before taxes on income	(953	) (7,110	) (7,568	) (20,691	) (30,833
Income tax benefit (expense)	719	(671	) 12,767	2,956	(156
Income (loss) from operations of the Company and its consolidated subsidiaries	(234	) (7,781	) 5,199	(17,735	) (30,989
Share of income in Paketeria	263	—	—	—	—
Share of losses in GridSense	(129	) —	—	—	—
Income (loss) from continuing operations	(100	) (7,781	) 5,199	(17,735	) (30,989
Gain on the sale of discontinued operations, net of income taxes	—	—	31,069	—	—
Loss from discontinued operations, net of income taxes	(6,076	) (17,969	) (1,948	) —	—
Non-controlling interest share of loss from discontinued operations	626	67	540	—	—
Net income (loss)	(5,550	) (25,683	) 34,860	(17,735	) (30,989
Net (income) loss attributable to non-controlling interests	(206	) 595	549	1,024	1,275
Net income (loss) attributable to Acorn Energy, Inc. shareholders	\$(5,756	) \$(25,088	) \$35,409	\$(16,711	) \$(29,714
Basic net income (loss) per share attributable to Acorn Energy, Inc. shareholders:					
Income (loss) from continuing operations	\$(0.02	) \$(0.48	) \$0.33	\$(0.93	) \$(1.57

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Discontinued operations	(0.48	)	(1.20	)	1.70	—	—
Net income (loss) per share attributable to Acorn Energy, Inc. shareholders	\$(0.50	)	\$(1.68	)	\$2.03	\$(0.93	) \$(1.57
Weighted average number of shares outstanding attributable to Acorn Energy, Inc shareholders - basic	11,445		14,910		17,462	17,891	18,916
Diluted net income (loss) per share attributable to Acorn Energy, Inc. shareholders:							
Income (loss) from continuing operations	\$(0.02	)	\$(0.48	)	\$0.32	\$(0.93	) \$(1.57
Discontinued operations	(0.48	)	(1.20	)	1.67	—	—
Net income (loss) per share	\$(0.50	)	\$(1.68	)	\$1.99	\$(0.93	) \$(1.57
Weighted average number of shares outstanding attributable to Acorn Energy, Inc shareholders - diluted	11,445		14,910		17,743	17,891	18,916

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## Selected Consolidated Balance Sheet Data:

	As of December 31,					
	2009	2010	2011	2012	2013	
	(in thousands, except per share data)					
Working capital	\$16,220	\$14,599	\$60,217	\$35,958	22,080	
Total assets	48,735	59,785	85,805	67,336	50,956	
Short-term and long-term debt	635	1,610	818	153	2,303	
Total Acorn Energy, Inc. shareholders' equity	30,777	33,373	69,651	51,659	32,399	
Non-controlling interests	5,321	8,504	(84	) 286	(887	)
Total equity	36,098	41,877	69,567	51,945	31,512	
Cash dividends paid per share	—	—	0.035	0.190	0.035	



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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

RECENT DEVELOPMENTS

GridSense Orders

In the first two months of 2014, GridSense received a number of large orders across numerous products lines. The Line IQ® product line has generated orders from a North American Utility and an international distributor totaling \$1.0 million. We expect the majority of these orders to ship in the first half of the year. We believe these orders are the result of our updated LIQ product line and our plan of targeting our pilots projects. While, we cannot predict future orders, these customers have indicated interest in further expansion of these projects. In Australia we have seen renewed demand for the PowerMonic™ product line in 2014 which has resulted in new orders for \$1.8 million. The shipment of the orders will occur throughout 2014 based on the customers delivery dates on their purchase orders. We believe the increase in PowerMonic™ orders is tied to both pent up demand from limited spending in 2012 and 2013 due the Australian utility consolidation and our focus driven sales strategy. We expect the level of PowerMonic™ orders to level off as the year moves forward and return to more normalized levels.

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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 four reportable segments: Oil & Gas Sensor Systems (through our USSI subsidiary), Energy & Security Sonar Solutions (through our DSIT subsidiary), Smart Grid Distribution Automation (through our GridSense subsidiaries) and PG Monitoring (through our OmniMetrix subsidiary). In addition, our “Other” segment represents IT and consulting activities at our DSIT subsidiary as well as Cathodic Protection activities in our OmniMetrix subsidiary.

The following analysis should be read together with the segment information provided in Note 21 to our Consolidated Financial Statements included in this report.

USSI

USSI's primary focus is on developing and producing “state of the art” fiber optic sensing systems for the energy market. The primary product lines for which USSI is currently developing products include downhole fiber optic sensor systems for hydrofrac monitoring used in unconventional oil and gas exploration and recovery, and 4D seismic reservoir monitoring systems. We believe that the only way to improve understanding of the subsurface, is via seismic monitoring with sensors specifically designed to detect and locate microseismic events. While we previously believed based on discussions with leading industry participants, that they would monitor all their frac jobs if equipment cost can be reduced by 75% below the cost of monitoring with traditional geophones (a goal we believe is achievable by utilizing USSI fiber optic sensor systems), based on our current understanding of the marketplace and customer constraints, we anticipate that the rate of adoption may occur at a slower pace. We remain optimistic, however, that the market for advanced seismic monitoring will nevertheless be sizable based upon our current pricing of \$250,000 for a 10-level system to \$1.0 million for a larger 40-level monitoring system.

USSI targets its products into the oilfield geophysics market and its potential customers are primarily the oilfield service companies. To date, we have not sold a product for commercial deployment, as all of our sales have been for trials or pilot projects. We are currently focused on completing what we believe are the final steps toward having a commercial product that we hope will lead to reference customers. As a result of several recent customer trials, USSI believes that its products may be of particular interest to those oilfield services companies supporting hydro-fracking in high temperature fields who further desire the ability to deploy and retract sensing devices rather than permanently embed them in their customers’ wells. USSI’s products are, however, designed for mid and low temperature deployments as well. In connection with our efforts to increase our industry knowledge, in December 2013, USSI announced the addition of Gary V. Morris to its board of directors. Mr. Morris previously served as Executive Vice President at Halliburton Company and also served as Halliburton’s Chief Financial Officer. Halliburton Company is a leading provider of oilfield services worldwide. With over 30 years of oil related business experience, Mr. Morris is an executive with a diversified background including Oil and Gas, Oilfield Services, Engineering and Construction, Software and Insurance.

In connection with some of the trials and pilot projects referred to above, USSI has experienced various design and deployment challenges that resulted in components of the array being damaged due to improper handling during either shipping or during installation into a well. USSI has taken the position that mishandling will sometimes occur in the oilfield and has implemented design improvements to make it less susceptible to damage when mishandling occurs. Although feedback from several customers indicates that the data from our sensors meets or exceeds our specifications, several customers have requested improvements regarding water blocking (primarily a solution to prevent a crack in the fiber optic cable from allowing water to penetrate the entire array), noise cancellation (a process to eliminate the impact of ambient noise on frac detection), improved clamping mechanisms to improve vector fidelity

(the ability to identify the location of a fracture point with precision) and more reliable seals and connections between array segments . We believe that we have provided or are close to achieving solutions responsive to each of these concerns, but the time involved in resolving these technical issues has delayed our ability to ship product beyond what we had previously anticipated. In the interim, customers continue to rely on existing competing technology, primarily conventional retrievable downhole sensors. Where these systems are not capable of sustained performance (i.e., in high temperature, long-term deployments), well owners are simply foregoing monitoring. We ramped up USSI's manufacturing capabilities and head count in anticipation of order volumes we expected would occur during the second half of 2013. Those expectations have not been realized and we do not anticipate significant array sales for at least the first half of 2014; it therefore may be necessary to realign expenses at USSI with the scope of current and near-term revenues. We therefore plan to closely

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monitor expenses to ensure they remain in line with current and projected activities. We may also make strategic hires of additional personnel with experience in the oil and gas industry to assist with our penetration into this complex market.

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

- Prove that our tool works. Customer feedback from the trials to date are telling us that our data is excellent and that we meet or exceed our own published specs, but we need to solve our deployment challenges in order to position ourselves to fulfill commercial-level sales;
- Confirm through further testing that the data we collect has economic value to our target customers. We expect to do this by further field trials with producers and the oilfield services companies that support them and are in active discussions now for more of these projects;
- Increase opportunities to attract early adopters of our technology by considering building, as capital permits, a “fleet” of rental arrays to reduce the economic hurdle to their evaluation of our products; and
- Reach a level of industry adoption and sales where we can either operate USSI profitably on our own, attract a partner with the financial and other resources necessary to scale the business, or monetize our investment through a sale or other strategic event.

During 2013, USSI reported revenues of \$1.5 million, an amount unchanged from 2012's revenues. Of the 2013 revenues, approximately 83% (\$1.2 million) was from a single customer - an oil supermajor as part of their ongoing evaluation of USSI's sensor systems. This customer also represents approximately \$1.8 million of USSI's \$2.5 million year-end backlog of orders as this customer continues its evaluation of USSI in 2014. USSI anticipates the completion of the evaluation process during 2014 and expects to begin to receive follow-on orders after such completion. Whether the trial will be successful or even if it is, whether and what amount of orders may be received from the customer cannot be determined at this time. A lack of success in the trial or the loss of anticipated orders could have a significant adverse impact on our 2014 financial results.

On a quarterly basis, USSI revenue continues to be erratic due to the number and size of projects that USSI is able to complete and deliver during each quarter. Fourth quarter 2013 revenues of \$320,000 reflects a \$173,000 increase compared to fourth quarter 2012 revenues of \$147,000. The increase in revenues is attributable to the delivery in the fourth quarter of 2013 of downhole systems to the oil supermajor as part of their ongoing evaluation of USSI's sensor systems.

During 2013, gross profit continued to be negative (\$2.3 million) as it was during 2012 (\$1.0 million). The negative gross profit and its increase from 2012 is primarily due to large amounts of non-recurring engineering work ("NRE") and provisions for future costs that accompanied the technical challenges (water blocking and more reliable seals and connections) in connection with the fixed price projects for delivering systems for evaluation by the oil supermajor. In addition, approximately \$1.8 million of the negative gross profit was attributable to cost overruns of sensor systems built-to-lease and inventory to net realizable values (\$1.5 million) and to inventory obsolescence (\$0.3 million).

USSI has increased its production staff and has developed proprietary automated manufacturing/assembly stations for its products. USSI has also implemented inventory control and tracking systems necessary to support larger scale production. These investments in equipment and systems are designed to make manufacturing more efficient and improving the production process is expected to ultimately result in fewer man-hours required for each product sold. However, currently, only two of the three manufacturing stations are fully operational. We expect that the impact of these improved production processes should produce improved gross margins when USSI begins to have commercial sales of its products.

During 2013, USSI recorded approximately \$3.9 million of research and development ("R&D") expense as compared to \$3.6 million during 2012. The increased R&D expense is due to increased field tests and increased materials costs in the development of new interrogator prototypes as well as work on developing and improving new clamp designs and resolving noise reduction issues and an increase in R&D materials used in product development. During the fourth quarter of 2013, USSI recorded approximately \$1.0 million of R&D expense as compared to \$0.9 million in the fourth quarter 2012. Quarterly R&D expense levels during 2013 varied from \$0.8 million to \$1.2 million per quarter with the variability arising from increased material usage in R&D. We expect R&D expense to approximate its current levels while USSI continues to work on developing more efficient production versions of its current products and addresses the technical issues encountered in customer field trials.

In June 2012, USSI together with DSIT were awarded a joint \$900,000 grant from the BIRD Foundation for the joint development of the PAUSS next generation integrated passive/active threat detection system for underwater site protection. In October 2012, a Cooperation and Project Funding Agreement was signed between the companies and the BIRD Foundation which allows for the commencement of the funding which is expected to take place over a 24 month period. USSI and DSIT may request an extension of this development project, though we have no assurance that such an extension would be granted. USSI anticipates

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receipt of approximately 40% (\$360,000) of the grant based on the expected allocation of project costs between DSIT and USSI. To date, USSI has received approximately \$135,000 from the BIRD Foundation. Payment of the remainder of the grant is dependent on continued progress being made in accordance with a contractually agreed upon time-line. Whether such funds will be forthcoming cannot be determined at this time.

During 2013, USSI recorded approximately \$3.4 million of SG&A expense representing a decrease of approximately \$0.5 million (12%) compared to 2012. The decrease in the year-on-year SG&A costs are due in part to reduced non-cash stock compensation expense which decreased from \$0.3 million to \$0.1 million combined with decreased outside consulting costs. Fourth quarter 2013 SG&A expense (\$1.0 million) also reflects a decrease of \$0.2 million as compared to fourth quarter 2012 SG&A expense of \$1.2 million and an increase of \$0.2 million compared to third quarter 2013. USSI expects SG&A expense to decline in the coming quarters as it works toward reducing its cash expenditures.

In July 2013, USSI signed an agreement to lease an additional 8,600 square feet of space contiguous to its facilities in Chatsworth, California. The additional space was expected to be used for production of anticipated commercial orders. If the pace of commercialization does not increase, we may explore opportunities to sublet this space. Whether and on what terms we may be able to do so cannot be determined at this time.

As at December 31, 2013, USSI's backlog of projects was approximately \$2.5 million which is primarily comprised of a \$1.8 million order from an oil supermajor as part of its continuing evaluation of USSI's systems and a \$0.5 million order for a microseismic monitoring pilot project for a major international oil company in the Barnett Shale (TX). USSI anticipates recognizing revenue on the oil supermajor evaluation project upon delivery of two complete 36-level fiber optic downhole microseismic monitoring systems designed to operate in a high temperature, deep depth environment which is expected to occur sometime in 2014. USSI anticipates recognizing revenue on the microseismic monitoring pilot project in the second half of 2014 as customer drilling problems have delayed their ability to complete the well that had been selected for our project. We are having discussions with the customer to find a suitable alternate well for the project prior to the second half of 2014. Actual revenue recognition for this project may be over an extended period of time depending upon the customer's ability to select an alternate well site in a timely manner. During the third quarter of 2013, USSI delivered 20 levels of its previously announced 40 level \$1.0 million project with SR2020. The 20-level array's cable was damaged in a test due to the bending radius of the array's cable being exceeded during the removal from the well. This issue is the type of early adoption risk that USSI intends to neutralize for its potential customers by affording them an option to initially lease, rather than purchase, its sensor arrays. In that regard, USSI and SR2020 have agreed to convert the prior \$1.0 million of SR2020 purchase orders into a \$125,000 leasing arrangement. As at December 31, 2013, USSI's backlog includes this \$125,000 lease arrangement with SR2020. USSI anticipates beginning recognition of revenue associated with this lease arrangements when the systems are delivered to the customers, which is expected by the end of the second quarter of 2014. We continue to anticipate significant growth in orders, particularly from new customers related to our 4D reservoir and shale gas monitoring systems following the demonstrations performed during 2013 (such as the supermajor noted above) and prior years as well as follow-on projects from our current proof-of-concept projects.

During 2013, we grew our employee base from 47 full-time equivalent employees (inclusive of consultants) at the end of 2012 to 50 full-time equivalent employees (inclusive of consultants) as of December 31, 2013. This increase in staff in 2013 was due in part to anticipation of order volumes we expected would occur during the second half of 2013 which have not been realized. In the short-term, we do not anticipate make staffing changes as we work to solve our technical challenges and fulfill anticipated near-term orders for trial systems. If orders are not received as anticipated, we may need to consider adjusting staffing levels.

USSI will continue to require working capital support while it continues to transition from development to production and as it continues to work on refining its manufacturing capabilities. During 2013 we invested \$7.4 million in USSI

to support its working capital requirements and anticipate investing an additional \$4.7 million in 2014 (of which \$1.3 million has already been transferred). We expect that USSI's working capital requirements will ultimately lessen if and when it begins to have commercial scale orders. We cannot however, provide any assurance as to whether or when such orders will be received. Accordingly, USSI is proactively monitoring its operating expenses to ensure that they are in line with its current and expected near term activities and will make adjustments as necessary.

In November 2013, USSI reached agreement with its bank for an expanded \$1.5 million line-of-credit which may be further increased to \$2.0 million if USSI reaches certain revenue milestones. Despite the increased line, we have no assurance that USSI's future capital needs will not exceed the amount of the credit line and our budgeted investment for 2014, that USSI will satisfy the covenants necessary to access any or all of the loan amount or that USSI will generate sufficient cash flow in the future to fund its operations in the absence of additional funding sources. USSI may need additional funds if revenues fail to meet projections or to fund a rapid expansion to meet product demand, respond to competitive pressures or acquire complementary

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products, businesses or technologies. Additional financing for USSI may be in the form of an expanded bank line, new investment by others, a loan or investment by Acorn, or a combination of the above. The availability and amount of any additional investment from us in USSI may be limited by the working capital needs of our corporate activities and other operating companies and we have no assurance that third party funds will be available in the required amounts or at all.

DSIT Solutions

Revenue in our DSIT subsidiary decreased by 4%, from \$13.6 million in 2012 to \$13.1 million in 2013. The decrease was primarily due to decreased revenue in the Energy & Security Sonar Solutions segment (from \$12.2 million in 2012 to \$11.8 million in 2013) while certain IT and consulting revenue which is included in our "Other" segment also decreased in 2013 from (\$1.4 million in 2012 to \$1.3 million). Fourth quarter 2013 revenue for DSIT was \$3.4 million reflecting a decrease of 5% compared to fourth quarter 2012 revenue of \$3.6 million. Fourth quarter 2013 revenues were above (20%) third quarter 2013 revenues (\$2.9 million).

The decrease in revenues in our Energy & Sonar Security Solutions segment was the result of 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. The receipt in the fourth quarter of the \$14.5 million contract for the supply, operation and support of an advanced underwater acoustic monitoring system helped mitigate loss of project revenues from the major project that was winding down in the third quarter and was responsible for the increase in revenues as compared to the third quarter of 2013. Revenues from DSIT's other IT and consulting activities which are included in Acorn's Other segment activities decreased slightly in 2013 (a decrease of approximately \$150,000 to \$1,250,000). The decrease was the result of reduced billable hours in its IT and consulting activities.

Gross profit in DSIT in 2013 was \$4.4 million which reflects a decrease of \$0.6 million or 12% from \$5.1 million in 2012. The decrease in the year-on-year gross profit was attributable to both decreased revenues and gross margins in DSIT's Energy & Sonar Security projects. DSIT's fourth quarter gross profit of \$0.8 million reflected a decrease of \$0.6 million as compared to the fourth quarter of 2012 and a decrease of \$0.2 million as compared to the third quarter of 2013. The fourth quarter decrease in gross profit was due to the reduced gross margin in the quarter.

DSIT's gross margin in 2013 was 34%, down from 2012's gross margin of 37%. The decrease in gross margin in 2013 was attributable to unanticipated delays and installation complications associated with one of the company's AquaShield projects. Fourth quarter 2013 gross margin was 24% as compared to 40% in the fourth quarter of 2012 and 36% in the third quarter of 2013. The decreased gross margins in the fourth quarter of 2013 as compared to the fourth quarter of 2012 and the third quarter of 2013 was due to the aforementioned installation complications which significantly increased projected installation costs in the fourth quarter for one of the company's AquaShield™ Diver Detection Sonar projects.

During 2013, DSIT recorded approximately \$1.5 million of Research and Development (R&D) expense, an increase of approximately \$0.5 million compared to 2012. R&D expense in 2013 was net of participations from the BIRD Foundation and MEIMAD (\$0.3 million in 2013 and \$0.2 million in 2012). R&D expense was \$0.4 million and \$0.3 million during the fourth quarters of 2013 and 2012, respectively. The increase is primarily attributable efforts to expand DSIT's portfolio of products to include land-based security fiber-optic solutions. 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 2013, however, progress has been negatively impacted by USSI's increased focus on its oil and gas activities. DSIT anticipates that its R&D costs will decrease to about 2012 levels in 2014.

In June 2012, DSIT together with USSI were awarded a joint \$900,000 grant from the BIRD Foundation for the joint development of the PAUSS next generation integrated passive/active threat detection system for underwater site



protection. In October 2012, a Cooperation and Project Funding Agreement was signed between the companies and the BIRD Foundation which allows for the commencement of the funding which is expected to take place over a 24 month period. DSIT and USSI may request an extension of this development project, though we have no assurance that such an extension would be granted. DSIT anticipates receipt of approximately 60% of the grant based on the expected allocation of project costs between DSIT and USSI. Payment of the the grant is dependent on continued progress being made in accordance with a contractually agreed upon time-line. Whether such funds will be forthcoming cannot be determined at this time due to USSI's increased focus on oil and gas activities.

In September 2013, DSIT and Ramot, the technology transfer company of Tel-Aviv University, were jointly awarded a grant from MEIMAD. MEIMAD is a collaborative program between the Israeli Ministry of Defense, the Office of the Chief Scientist at the Ministry of Economy and the Ministry of Finance, to jointly promote new ideas and new technologies that can serve both commercial applications and military needs. MEIMAD provides funding money for projects involving joint innovation and development between Israeli industrial companies and universities. The grant is for a 30-month project (16 months for the

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first stage and 14 months for the second stage) for the joint development of a next generation Fiber-Optic Based Perimeter Security System Interrogator. The total amount of the grant is approximately \$650,000 for the two stages of the project.

During 2013, DSIT recorded approximately \$3.3 million of selling, general and administrative ("SG&A") expense as compared to approximately \$3.2 million recorded during 2012. The increase compared to 2012 is attributable to non-cash stock compensation expense (\$160,000) associated with the modification of certain options at DSIT (see below). Fourth quarter 2013 SG&A of \$0.8 million represents a decrease of \$0.2 million compared to fourth quarter 2012's SG&A of \$1.0 million due to reduced marketing costs associated with conferences and exhibitions and associated costs. Quarterly SG&A expense during the year ranged from \$811,000 to \$856,000 during each of the four quarters in 2013. DSIT expects SG&A to decrease slightly during 2014 as a result of salary adjustments made to offset the increased U.S. dollar salary costs of a weakening U.S. dollar and reduced stock compensation expense.

Effective July 1, 2013, Acorn entered into a Stock Purchase Agreement with DSIT pursuant to which Acorn converted a prior loan of approximately \$800,000 into additional ordinary (common) shares of DSIT. Acorn also converted \$2.8 million in advances and loans into DSIT's Participating Preferred Stock (the "DSIT Preferred Stock"). At the closing, Acorn purchased an additional \$800,000 of DSIT Preferred Stock and committed to purchasing an additional \$1.4 million of DSIT Preferred Stock.

In September 2013, Acorn informed DSIT that it would suspend payment of funds it committed to invest in DSIT over the remainder of 2013 and in 2014. The Stock Purchase Agreement with DSIT will need to be amended to reflect this decision. We are currently unable to predict the terms of the amendment at this time.

In July 2013, DSIT amended the vesting terms of previously granted option agreements under the DSIT 2006 Key Employee Share Option Plan (the "Plan") such that those options become vested and exercisable upon the occurrence of any one of the following:

- i) The date of consummation of an IPO (as defined in the Plan); or
- ii) The date of consummation of a Corporate Transaction (as defined in the Plan); or
- iii) The date of termination or resignation of Optionee's employment with DSIT, for any reason excluding termination for cause, provided that on the date of termination the Optionee was employed by DSIT for a continuous period of at least 25 years.

As a result of the modification of the options, DSIT recorded stock compensation expense of \$160,000 (\$116,000 in SG&A) during 2013.

In July 2013, DSIT renewed its lease for its operating facilities in the Tel Aviv, Israel metropolitan area which had expired in August 2012. The current lease expires in January 2016 and has an annual rent of approximately \$285,000. DSIT has an option to renew the lease for an additional three year period with an increase of 6% in the annual rent.

At December 31, 2013, DSIT had a project backlog of approximately \$13.4 million; an increase of \$3.8 million as compared to DSIT's backlog of \$9.6 million at December 31, 2012. DSIT's December 2013 backlog includes approximately \$10.2 million from its recently disclosed contract with an unnamed customer for the supply, operation and support of an advanced underwater acoustic monitoring system. This contract is a long-term project which includes approximately \$3.3 million for long-term maintenance and support expected to begin in late 2015. In addition, the contract includes the potential for an additional \$3.2 million of options for testing trials that would also begin no earlier than late 2015. While DSIT has a significant pipeline, most of its major projects come after a lengthy sales cycle over which it has little control.

DSIT recorded a consolidated net loss of \$0.5 million in 2013 (following net consolidated net income of \$0.5 million in 2012 and \$0.1 million in 2011). The decrease of \$1.0 million from 2012 to 2013 was primarily due to the decreased gross profit ( \$0.6 million - which resulted from both decreased revenues and gross margins) combined with increased developments costs (\$0.5 million). DSIT's expects to recognize approximately \$7.0 million of its backlog in 2014. DSIT expects to show modest revenue growth in 2014 compared to 2013 due to revenue based upon its existing backlog and additional orders it expects to receive during 2014. DSIT's level of profitability in 2014 will be affected by its ability to receive significant new orders for its DDS and PDDS and other Naval solution products during the year as well as its ability to improve its gross margins.

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### Energy & Security Sonar Solutions

During 2011, 2012 and 2013, revenues from our Energy & Security Sonar Solutions segment in our DSIT subsidiary were \$9.1 million, \$12.2 million and \$11.8 million, respectively, accounting for approximately 87% , 90% and 90% of DSIT's revenues for 2011, 2012 and 2013, respectively. The balance of DSIT's revenues of \$1.4 million, \$1.4 million and \$1.3 million for the years ending December 31, 2011, 2012 and 2013 were derived from DSIT's other IT and consulting activities which are included in Acorn's Other segment activities.

This segment's revenues decreased by \$0.4 million or 3% in 2013 as compared to 2012. The decrease in revenues was 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. The receipt in the fourth quarter of the \$14.5 million contract for the supply, operation and support of an advanced underwater acoustic monitoring system (see "Recent Developments") helped mitigate some of the loss of project revenues during the year.

Segment gross profit decreased in 2013 as compared to 2012 to \$3.8 million from \$4.5 million following an increase in 2012 from 2011 from \$3.0 million in 2011 to \$4.5 million in 2012. The decreased gross profit in 2013 as compared to 2012 was due to decreased revenues of our energy and sonar solutions products combined with reduced gross margins which decreased from 37% in 2012 to 32% in 2013. The reduced margins in 2013 were attributable to unanticipated delays and installation complications associated with one of the company's AquaShield projects.

We anticipate modest growth in revenue in 2014 from this segment. Growth is expected from our acoustic and sonar solutions projects based on our existing backlog with our revenues from embedded hardware and software development projects expected to remain relatively stable. We anticipate new customers from new regions (primarily Asia based) placing orders for our sonar and acoustic products in 2014. We do not anticipate recording significant revenues from land based security solutions in 2014.

### GridSense

During the second quarter of 2013, following a change in its management, GridSense made a decision to restructure operations in both its USA and Australian entities. This action was taken primarily in order to improve efficiency based on GridSense's revenue mix and skills mix. As part of the restructure, GridSense downsized its Australian operations and moved its operations to a smaller facility. Following this, GridSense's Australian operations no longer have a production line and have minimal research and development activities. Substantially all product production and development now take place at GridSense's U.S. operations facility in Sacramento.

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 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 sales and engineering efforts and is focusing on fewer and more standardized opportunities with the most perceived likelihood for successful deployment and commercial-scale orders. Specifically, we plan to focus our continued sales efforts in 2014 only on those products that have already shown the most traction in the marketplace such as the Transformer IQ<sup>®</sup>, the Line IQ<sup>®</sup> and GridInSite<sup>™</sup>.

Under new management, GridSense has reduced its operating loss in the second half of 2013 to \$1.6 million from \$2.2 million (excluding the second quarter restructuring charge of \$0.6 million) in the first half of 2013 on the same level of revenues (approximately \$2.5 million in each half of the year). In addition, cash used in operations decreased from \$2.1 million in the first half of 2013 to \$0.8 million in the second half of 2013. GridSense began 2014 with a backlog of orders of \$0.8 million and has recently received an additional \$2.4 million of new orders from five different utilities ranging from \$200,000 to \$1.1 million, primarily from its Australian operations (see Recent Developments). These larger orders are consistent with GridSense's redefined focus over the last several months by concentrating their efforts on higher quality pilot projects.

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In 2013, GridSense reported revenues of \$5.0 million, an increase of \$1.4 million (37%) compared to 2012 revenues. The increase in 2013 year-on-year revenues was attributable 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. Revenues from GridSense's Australian operations decreased in 2013 to \$1.6 million compared to \$1.7 million in 2012. 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 Australian revenues in 2013 is attributable to decrease in value of the Australian dollar. The nominal value of Australian dollar sales was virtually unchanged in 2013 as compared to 2012. Fourth quarter 2013 revenues of \$1.5 million nearly doubled fourth quarter 2012 revenues (\$0.8 million) and were \$0.4 million (39%) above third quarter 2013 revenues of \$1.1 million. The quarter-on-quarter increase in revenues was attributable to the aforementioned order from a major national utility which was fulfilled in 2013. The increase as compared to the third quarter of 2013 was due to increased sales in Australia.

GridSense's full year revenues by main product lines for 2011, 2012 and 2013 are as follows:

	2011	2012	2013
	(in thousands of U.S dollars)		
Transformer IQ®	\$2,696	\$693	\$2,091
Line IQ®	1,187	995	1,118
PowerMonic™	2,891	1,376	995
Other	345	598	822
Total	\$7,119	\$3,662	\$5,026

Sales across all major product lines showed a mix of results in 2013 as compared to 2012. Sales of the Transformer IQ increased significantly in 2013 as compared to 2012. Increased sales were due to an order for over 600 units which did not ship until the first quarter of 2013 as well as orders for an additional 650 units which were shipped in the second half of 2013. We believe 2014 will continue to show increased Transformer IQ sales.

The Line IQ was a product in transition during 2012. The redesigned product was released at the end of 2012 pushing sales into 2013. Due to the reduced cost of deploying this line monitoring system, utilities will be able to justify larger scale roll-outs. Management expects increases in the size of deployment with existing Line IQ users as well as adoption by new utility customers. We have seen a significant increase in orders for the Line IQ® in the second half of 2013 during which we received orders valued at over \$400,000. This trend of increased orders has carried into the first quarter of 2014 (see Recent Developments). In early 2014, the Line IQ product line has generated orders from three North American Utilities totaling \$1.5 million. We expect the majority of these orders to ship in the first half of the year. We believe these orders are the result of our updated Line IQ product line and our plan of targeting our pilots projects. While, we cannot predict future orders, these customers have indicated interest in further expansion of these projects.

The continued decline in PowerMonic sales was related to a restructuring by the Australian government bringing three separate power utilities under a single state owned utility in 2012. While we expected higher levels of sales in 2013, these sales did not materialize due as we believe budget processes were still being approved. However, in early 2014, we have seen an increase in orders having received \$1.8 million of new PowerMonic orders which we expect to deliver during 2014 (see Recent Developments). We believe the increase in PowerMonic orders is tied to both pent up demand from reduced utility spending in 2012 and 2013 as a result of the Australian utility consolidation and our focus driven sales strategy. We expect the level of PowerMonic orders to level off as the year moves forward and

return to more normalized levels.

GridSense's gross profit in 2013 (\$1.8 million) increased by approximately \$0.9 million or 89% compared to 2012's gross profit. The increase in gross profit was attributable to the abovementioned increase in revenues and an increase in gross margins. Gross margins increased from 26% in 2012 to 36% in 2013. The increase in the gross margin was due to a combination of a number of factors which negatively impacted on the 2012 gross margin. During 2012, a portion of the decrease was attributable to product delays of the latest version of the company's line monitoring platform which resulted in the fulfillment of orders based on the higher costing predecessor product. Also, additional costs were incurred in freight as the company shifted production from its Sydney facility to its Sacramento facility. Furthermore, during the fourth quarter of 2012, the company recorded an inventory charge of approximately \$350,000 due to a write-off of obsolete inventory and an increase in the reserve for obsolete inventory.

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While the 2013 gross margin was 10% greater than 2012's, it was also negatively impacted by a number of one-time events such as inventory obsolescence recorded as part of our restructuring and a lower than normal margin for a particularly large order in 2013. In 2014, we expect gross margins to increase above 2013's levels as we continue to work towards managing inventory more efficiently, improving forecasting for purchasing and procurement, and reducing production cycle times.

During 2013, GridSense recorded \$2.1 million of R&D expense as compared to \$1.6 million during 2012. Of the 2013 R&D expense, \$1.4 million was recorded in the first half of the year prior to the downsizing of GridSense's Australian operations and reduction of the engineering staff in the U.S. First half 2013 R&D expense was impacted by additions to GridSense's engineering team in 2012 to accelerate the development of some key projects. Fourth quarter 2013 R&D expense was \$0.3 million compared to \$0.5 million in the fourth quarter of 2012 and \$0.4 million in the third quarter of 2013. GridSense expects that R&D expense going forward will stabilize at or about their current levels going forward.

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. Fourth quarter SG&A expense of \$0.8 million reflects a decrease of \$0.2 million from the fourth quarter of 2012, and a slight (\$50,000) decrease from the SG&A expense recorded in the third quarter of 2013. 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. We expect that SG&A costs will stabilize at or about their current levels going forward.

During 2013, Acorn continued to provide funds for GridSense's working capital needs. During 2013, Acorn invested \$1.5 million in GridSense for its working capital needs plus an additional \$480,000 to help fund the costs of the restructuring noted above. In addition, during the second half of 2013, we also lent GridSense \$1,125,000 to support the order it received from a major national utility based on a partnership with a regional smart grid company and other working capital needs. This loan was repaid in part in 2013 (\$850,000) with the balance of \$275,000 being repaid in February 2014.

In December 2013, GridSense completed the sale of its Bushing IQ product line for \$281,000 and recorded a gain on the sale of \$116,000.

In December 2013, GridSense signed an amendment to its Loan and Security Agreement with a bank to provide it with an expansion of its revolving line-of-credit to \$1.5 million. Acorn has guaranteed to the bank amounts outstanding under the line-of-credit. The line-of-credit expires on June 30, 2014. Advances from the line-of-credit bear interest at a variable annual interest rate equal to the greater of 3.25% above the Prime Rate in effect (3.25% at December 31, 2013) or 6.5%. The line-of-credit is also subject to certain financial covenants. GridSense was in compliance with its financial covenants at December 31, 2013. As of December 31, 2013, GridSense was utilizing \$958,000 of this line-of-credit.

On February 28, 2014, GridSense had cash on hand of approximately \$0.1 million and was utilizing approximately \$1.4 million of its line of credit. We have no assurance that GridSense will increase its 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



In accordance with applicable accounting standards, we began consolidating the results of OmniMetrix beginning February 15, 2012, the date we acquired OmniMetrix. Accordingly, there are only partial comparative results reported for OmniMetrix for the year ended December 31, 2012.

In 2013, OmniMetrix recorded revenues of \$2.2 million (\$1.7 million in its Power Generation Monitoring ("PG") segment and \$0.5 million in its Cathodic Protection ("CP") segment) as compared to revenues of \$0.7 million recorded in 2012 following our acquisition. The increase in revenues is driven by increased monitoring revenue. Quarterly revenue over 2013 showed slight improvement with fourth quarter revenue of \$0.6 million following third and second quarter 2013 revenues of \$0.5 million each.

Following our acquisition of OmniMetrix, we invested heavily in developing its infrastructure and growing its staff (from 12 at acquisition to a peak of 36 in July 2013) in order to accommodate expected growth and expand our market presence. During the first half of 2013, OmniMetrix attempted to market its PG products primarily to dealers and distributors of the most common brands of generators. While some larger dealers embraced OmniMetrix's business model (a recurring revenue model where monitors are sold at or below cost in exchange for customer commitments for fixed term monitoring contracts), it did not universally resonate within the dealer marketplace and the rate of anticipated adoption (and thus sales of monitors and monitoring subscriptions) was

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far slower than anticipated. Despite the increase in revenues in 2013 as compared to 2012, revenue in 2013 and expected future monitoring revenues from renewals have been significantly adversely impacted by our inability to make sufficient new sales to match the investment in infrastructure and staff growth. 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. Acorn intends to continually 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, and in July 2013, as a first step appointed the CEO of GridSense (Joe Musanti) to also serve as CEO of OmniMetrix.

In the second half of 2013, OmniMetrix engaged in restructuring its operations to better align expenses with revenues as now projected by its new management. This resulted in personnel layoffs and significantly reduced utilization of its leased facility in Buford, Georgia. In the third quarter of 2013, OmniMetrix recorded a restructuring charge of \$0.8 million related to severance and other termination benefits for employees whose positions were made or are expected to be made redundant, the expected net contractual rental commitments through the end of its lease in December 2019 and the write-down of a majority of the remaining book value of leasehold improvements associated with the leased facility net of the landlord's participation in those improvements.

As revenue in 2013 and expected future revenues (for both PG and CP activities) were significantly adversely impacted by the inability to make expected penetration in the marketplace, future projections for the segments have been adjusted accordingly. Following a goodwill impairment analysis based upon expected discounted cash flows from both the PG and CP segments, we determined that the goodwill recorded with respect to both segments were fully impaired and an impairment charge of \$1.9 million was recorded in the third quarter. The goodwill impairment analysis performed also indicated that acquired intangible assets (technologies, customer relationships and non-compete agreements) were also impaired. Accordingly, we also recorded an impairment charge of \$3.7 million associated with those intangibles. This followed a second quarter impairment of customer relationship charge of \$1.1 million that was recorded following the decision by a major customer to begin disconnecting their units.

While no assurance can be given that we will be successful, management's goal is that following the restructuring changes at both GridSense and OmniMetrix, that the operations of both entities will be able to take advantage of synergies in engineering, marketing, customer relations and administration.

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.

Gross profit during 2013 was approximately \$1.2 million reflecting a gross margin of 56% on revenues compared with a gross profit of \$0.2 million (28% gross margin) in 2012. The increase in the gross margin from 2012 was due to certain one-time adjustments recorded in 2012 which negatively impacted on the gross margin. Fourth quarter gross profit of \$360,000 reflected a gross margin of 61%, up from third quarter 2013 gross margin of 50%. The increase in the quarter's gross margin was due to the elimination of amortization allocated to cost of sales (\$58,000 in the third quarter) following the impairment of all of OmniMetrix's intangibles at the end of the third quarter. The gross margin is driven by margins on monitoring revenue which was 71% during the year and 84% during the fourth quarter. 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 \$647,000 of R&D costs as compared to \$341,000 in 2012. R&D costs in the fourth quarter decreased to \$148,000 as compared to \$231,000 in the third quarter of 2013 following our third quarter restructuring. We anticipate that these costs will continue at approximately our fourth quarter pace going forward as a result of our restructuring and the synergies we expect to benefit from in working with GridSense.

During 2013, OmniMetrix recorded approximately \$4.5 million of SG&A costs of which approximately \$2.0 million was related to sales and marketing. Such costs were significantly above 2012 SG&A costs of \$2.5 million (\$0.8 million in sales and marketing) since our acquisition of OmniMetrix in February of 2012. The growth in SG&A costs reflects the investment in marketing and back-office infrastructure since our acquisition. Fourth quarter 2013 of \$0.9 million was down \$0.4 million from third quarter 2013 G&A costs of \$1.3 million following our restructuring. We anticipate that our SG&A costs will continue to decline as a result of our restructuring and the synergies we expect to benefit from in working with GridSense.

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OmniMetrix currently has no other sources of financing other than its sales and investments by Acorn. During 2013, Acorn invested in or lent to OmniMetrix a total of \$3.7 million. Based on new potential sales opportunities being developed at OmniMetrix, we have reevaluated our decision not to provide additional cash for the business. As previously reported, we had anticipated lending up to \$1.0 million to OmniMetrix in 2013, but they required only \$0.7 million. Our Board recently approved an additional \$0.5 million loan to OmniMetrix to provide working capital to pursue the new sales opportunities discussed above. We also have begun sharing resources between OmniMetrix and GridSense in areas such as information technology, and have identified other areas where potential synergies exist. In order to best position each company for growth in value, we will continue to evaluate the degree to which combining the businesses makes sense.

On February 28, 2014, OmniMetrix had approximately \$20,000 of cash on hand. In 2014, OmniMetrix is expected to need additional financing as noted above. The level of additional financing will be dependent upon the level of penetration by OmniMetrix into the power generation monitoring market and the realization of 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. OmniMetrix was unsuccessful in discussions with a bank to provide working capital financing and there is no assurance that such financing from another bank or any other party will be available in sufficient amounts, in a timely manner or on acceptable terms. 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 2013 reflected a \$0.2 million decrease to \$5.1 million as compared to \$5.3 million of expense in 2012. The decrease is due primarily 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 in part due to number of options granted at the end of 2012.

Fourth quarter 2013 corporate general and administrative expense was \$1.1 million reflecting a decrease of approximately \$0.1 million compared to both the fourth quarter of 2012 and third quarter of 2013. The decrease in fourth quarter 2013 corporate general and administrative expense compared to fourth quarter 2012's balance was primarily due to decreased investor relations expenses while the decrease compared to third quarter 2013's balance was primarily due to a reduction in general corporate activity .

During the fourth quarter of 2013, Acorn took steps to reduce its corporate overhead expense and cash burn. In November 2013, Acorn's President and CEO, John A. Moore, voluntarily agreed to reduce his base salary by 25% from \$425,000 per annum to \$318,750 per annum, effective retroactively as of the October 16, 2013 payroll period; its Executive Vice President, Richard S. Rimer, agreed to reduce his consulting fees by 20% from \$30,720 per month to \$24,576, effective retroactively as of November 1, 2013, and to end the consulting agreement whereby he served as EVP effective December 31, 2013 in exchange for a lump sum payment of \$73,728, which represented 80% of the amounts that otherwise would be payable upon termination of the agreement; its CFO, Michael H. Barth, agreed to a \$10,000 reduction in his salary commencing January 1, 2014; its outside Directors (including the Chairman) agreed to reduce their annual cash retainer for 2014 by \$10,000 per Director; and its Chairman agreed to a reduction in his annual chairman fee for 2014 by \$15,000. Acorn plans to continue to reduce its investor relations activities in 2014 as well. As a result of these steps, we expect our corporate general and administrative costs to decrease dramatically from current levels. We anticipate that we will achieve an approximate 35% overall reduction in cash burn. Actual results are dependent upon our corporate activity during 2014.

On October, 17, 2013, Acorn closed on a public offering of 3,508,771 shares of its common stock at \$2.85 per share for gross proceeds to Acorn of \$10.0 million. Acorn received net proceeds of approximately \$9.1 million after deducting discounts and commissions to the underwriters and estimated offering expenses. In connection with the Underwriting Agreement, Acorn also issued a warrant to the underwriters to acquire 228,070 shares of common stock at \$3.14 per share which shall be exercisable for five years. This was followed by a second closing on October 23, 2013, whereby Acorn closed on a sale of 526,316 shares of its common stock following the full exercise of the over-allotment option granted to the underwriters at \$2.85 per share for gross proceeds to Acorn of \$1.5 million. A second warrant for 34,211 shares exercisable at \$3.14 for five years was issued to the underwriters in connection with this closing. Acorn received net proceeds of \$1.4 million from the over-allotment option exercise or a total of \$10.4 million from both closings after deducting discounts and commissions to the underwriters, professional fees and other offering related expenses.

As of February 28, 2014, Acorn's corporate operations (not including cash at any of our subsidiaries) held a total of approximately \$13.0 million in cash and cash equivalents (\$10.5 million in U.S. banks and \$2.5 million in Israeli banks (all of which can be repatriated without any tax consequence)).

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### 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, 2013, we no longer have cost or equity basis investments.

On February 15, 2012, we began consolidating the results of OmniMetrix LLC, a Georgia limited liability company following our acquisition of all of the issued and outstanding limited liability company membership interests (see Note 3(a)) to our Consolidated Financial Statements). On August 31, 2011, we ceased consolidating the results of CoaLogix following the sale of all of our common stock in the company (see Notes 4 and 5 to our Consolidated Financial Statements). The results of CoaLogix are presented as discontinued operations for all the periods since our acquisition of them in November 2007.

#### 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.



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Our goodwill at December 31, 2013 was approximately \$4.4 million representing approximately 9% of our total assets. Our goodwill is allocated to our segments as follows: Energy & Security Sonar Solutions – approximately \$0.6 million, GridSense – approximately \$2.4 million and Oil and Gas Sensor Systems – approximately \$1.4 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, 2013 was approximately \$3.7 million representing approximately 7% of our total assets. The composition of our intangible assets at December 31, 2013 consisted of Naval Technologies in our Energy & Security Sonar Solutions segment (\$0.1 million, net of accumulated amortization), Software and Customer Relationships in our GridSense segment (\$1.5 million, net of accumulated amortization) and Sensor Technologies and an acquired license in our Oil and Gas Sensor Systems segment (\$2.2 million, net of accumulated amortization). 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, and early adoption was permitted. As discussed more fully in Note 12 to the Consolidated Financial Statements, we adopted this guidance for our annual goodwill impairment test that was conducted in the fourth quarter of 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

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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.

During the second quarter of 2013, a customer with whom OmniMetrix had a significant on-going relationship at the time of the Company's acquisition of OmniMetrix in February 2012, indicated that they would be disconnecting all of their power generator monitoring units over a period of time. Accordingly, the Company recorded an impairment of the customer relationship intangible asset associated with that customer in its Power Generation Monitoring segment of \$1.1 million.

For 2013, as required, the Company performed an annual impairment test of recorded goodwill during the fourth quarter (or earlier if impairment indicators or triggering events are present). As previously noted, in September 2011, the FASB issued guidance that simplified how entities test for goodwill impairment by permitting 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.

In performing the 2013 goodwill impairment test for each of our Oil & Gas Sensor Systems, Energy & Security Sonar Solutions and GridSense reporting units, we assessed the relevant qualitative factors and concluded that it is more likely than not that the fair values of our reporting units are greater than their carrying amounts. After reaching this conclusion, no further testing was performed. The qualitative factors we considered included, but were not limited to, general economic conditions, industry and market conditions, pipeline and backlog, our recent and projected financial performance and the price of the Company's common stock.

With respect to our OmniMetrix PG and CP (which is included in our "Other" segment) reporting units, we quantitatively evaluated the goodwill for impairment in the third quarter of 2013 following what we considered to be a "triggering event". OmniMetrix operates primarily on a recurring revenue model where monitors are sold at or below cost in exchange for customer commitments for fixed term monitoring contracts. During the first half of 2013, OmniMetrix marketed primarily to dealers and distributors of the most common brands of generators. While some larger dealers have embraced this business model, it did not universally resonate within the dealer marketplace and the rate of adoption (and thus sales of monitors and monitoring subscriptions) has been far slower than anticipated. Revenue in 2013 and future years (for both PG and CP segments) have been significantly adversely impacted by the inability to make expected penetration in the marketplace and future projections for the segments have been adjusted accordingly (the "triggering event"). Following a goodwill impairment analysis based upon expected discounted cash flows using Level 3 inputs from both the Company's PG and CP segments, the Company determined that the goodwill recorded with respect to both segments were fully impaired and the Company recorded an impairment charge of \$1.9 million with respect to goodwill and \$3.7 million with respect to the remaining amortizing intangibles.

## 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, 2013, we recorded approximately \$13.1 million of revenues representing approximately 60% of our consolidated revenues in our DSIT subsidiary. In 2013, DSIT derived approximately \$11.7

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, DSIT encountered a significant change in estimate for a material project due to increased estimated installation costs of its AquaShield™ Diver Detection Sonar system. The aggregate net changes in the contract estimates recognized using the cumulative catch-up method of accounting increased operating income by \$1.6 million (\$0.06 per basic share) in 2013, decreased operating income by \$0.7 million (\$0.01 per basic share) in 2012 and decreased operating income by \$0.9 million (\$0.04 per basic share and \$0.04 per diluted share) in 2011.

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In 2013, GridSense recorded approximately \$5.0 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 2013, USSI recorded approximately \$1.5 million of revenue representing approximately 7% of our consolidated revenue for the year.

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

In 2013, OmniMetrix recorded approximately \$2.2 million of revenue representing approximately 10% of our consolidated revenue for the year. Of OmniMetrix's 2013 revenue, \$0.8 million or 36% represents the revenue from the sales of monitoring units and \$1.4 million or 64% represents the revenue recognized from the 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 CP 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.

## 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\$"). In the year ended December 31, 2013, 60% of our consolidated revenues (70% and 55% in the years ended December 31, 2012 and 2011 respectively) came from our DSIT subsidiary while 7% of our consolidated revenue in the year ended December 31, 2013 (9% and 18% in the years ended December 31, 2012 and 2011, respectively) came from GridSense's Australian subsidiary. 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 2013 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. Our expected dividend rate was based upon our quarterly dividend of \$0.035 per share for options granted up until the suspension of our quarterly dividend

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in March 2013. Thereafter, 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 adopted the USSI 2012 Stock Option Plan to be administered by the board of directors of USSI. In September 2012, USSI granted options to purchase 637,375 of its common shares, to senior management, employees, outside directors and a consultant of USSI under the Plan. The options were granted with an exercise price based on a valuation performed by an independent third party.

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 during the year ended December 31, 2013.

For each of the years ended December 31, 2013, 2012 and 2011, we incurred stock compensation expense with respect to options of approximately \$1.2 million, \$0.9 million and \$0.5 million, respectively.

See Note 17(e) to the consolidated financial statements for the assumptions used to calculate the fair value of share-based employee compensation for our Acorn options.

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## RESULTS OF OPERATIONS

The following table sets forth selected consolidated statement of operations data as a percentage of our total sales:

	Year ended December 31,						
	2009	2010	2011	2012	2013		
Revenues	100	% 100	% 100	% 100	% 100	% 100	%
Cost of sales	57	58	63	73	76		
Gross profit	43	42	37	27	24		
Research and development expenses, net	5	7	16	34	38		
Selling, general and administrative expenses	62	73	63	100	91		
Impairments	1	8	—	—	31		
Restructuring and related charges	—	—	—	—	6		
Operating loss	(25	) (46	) (42	) (107	) (142	)	)
Finance income (expense), net	(1	) (2	) —	—	1		
Gain on sale of shares in Comverge	15	—	—	—	—		
Gain on investment in GridSense	—	9	—	—	—		
Distributions received from EnerTech	—	1	—	—	—		
Gain on sale of HangXing	—	—	3	—	—		
Loss on sale of EnerTech	—	(13	) —	—	—		
Loss from operations before taxes on income	(10	) (50	) (40	) (107	) (142	)	)
Income tax benefit (expense)	8	(5	) 67	15	(1	)	)
Income (loss) from operations of the Company and its consolidated subsidiaries	(3	) (55	) 27	(91	) (142	)	)
Share of income (losses) in Paketeria	3	—	—	—	—		
Share of losses in GridSense	(1	) —	—	—	—		
Net income (loss) from continuing operations	(1	) (55	) 27	(91	) (142	)	)
Loss from discontinued operations, net of income taxes	(66	) (126	) (10	) —	—		
Gain on the sale of discontinued operations, net of income taxes	—	—	164	—	—		
Non-controlling interest share of loss from discontinued operations	7	—	3	—	—		
Net income (loss)	(60	) (181	) 184	(91	) (142	)	)
Net income (loss) attributable to non-controlling interests	(2	) 4	3	5	6		
Net income (loss) attributable to Acorn Energy, Inc. shareholders	(62	) (177	) 187	(86	) (137	)	)

The following table sets forth certain information with respect to revenues and profits of our reportable business segments for the years ended December 31, 2013, 2012 and 2011, including the percentages of revenues attributable to such segments. (See Note 21 to our consolidated financial statements for the definitions of our reporting segments). The column marked “Other” aggregates information relating to certain IT activities (protocol management software for cancer patients and billing software) and outsourced consulting activities performed by our DSIT subsidiary as well as Cathodic Protection activities in our OmniMetrix subsidiary.





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	Energy & Security Sonar Solutions	GridSense	Oil & Gas Sensor Systems	Power Generation Monitoring	Other	Total	
	(in thousands, except percentages)						
Year ended December 31, 2013:							
Revenues from external customers	\$11,815	\$5,026	\$1,468	\$1,671	\$1,776	\$21,756	
Percentage of total revenues from external customers	54	% 23	% 7	% 8	% 8	% 100	%
Segment gross profit	3,817	1,828	(2,347 )	867	991	5,156	
Year ended December 31, 2012:							
Revenues from external customers	\$12,229	\$3,662	\$1,464	\$502	\$1,562	\$19,419	
Percentage of total revenues from external customers	63	% 19	% 8	% 3	% 8	% 100	%
Segment gross profit	4,465	968	(1,021 )	129	662	5,203	
Year ended December 31, 2011:							
Revenues from external customers	\$9,104	\$7,119	\$1,316	\$—	\$1,389	\$18,928	
Percentage of total revenues from external customers	48	% 38	% 7	% —	% 7	% 100	%
Segment gross profit	3,019	3,327	(98 )	—	665	6,913	

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## 2013 COMPARED TO 2012

Revenues. Revenues during 2013 increased by \$2.3 million or 12% from \$19.4 million during 2012 to \$21.8 million in 2013. The increase in revenues was driven primarily 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. During 2013, USSI's revenue was unchanged at \$1.5 million while DSIT's revenue 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<sup>®</sup> 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. Gross profit of \$5.2 million during 2013 was unchanged as compared to 2012 gross profit. 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. USSI continued to show a negative gross profit (\$2.3 million, an increase of \$1.3 million compared to the negative gross profit in 2012 of \$1.0 million). 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 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. USSI's negative gross profit and its increase from 2012 is primarily due to large amounts of NRE and provisions for future costs that accompanied the technical challenges (water blocking, noise cancellation, improved clamping mechanisms and more reliable seals and connections) in connection with the fixed price projects for delivering systems for evaluation by the oil supermajor. In addition, approximately \$1.8 million of the negative gross profit was attributable to adjustments of sensor systems built-to-lease and inventory to net realizable values (\$1.5 million) and to inventory obsolescence (\$0.3 million).

Research and development (“R&D”) expenses. R&D expenses increased \$1.6 million (24%) from \$6.6 million in 2012 to \$8.2 million in 2013. R&D expenses increased at all companies with increases varying between \$0.3 million and \$0.5 million. USSI's R&D expense of \$3.9 million represents an increase of \$0.3 million as a result of increased field tests and increased materials costs in the development of new interrogator prototypes as well as work on developing and improving new clamp designs and resolving noise reduction issues and an increase in R&D materials used in product development. 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. 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. Selling, general and administrative expenses (“SG&A”). SG&A costs in 2013 increased by \$0.5 million (2%) 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. 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. USSI's decreased SG&A expense (from \$3.8 million in 2012 to \$3.4 million in 2013) was attributable to decreased non-cash stock compensation expense associated with USSI's stock option plan and decreased consulting fees. 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. 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

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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.

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), USSI, (\$9.6 million), GridSense (\$4.3 million which includes a restructuring charge of \$0.6 million), and DSIT (\$0.5 million). Corporate expenses contributed an additional \$5.0 million. These losses were offset by the non-controlling interest's share of our operations of approximately \$1.3 million.

2012 COMPARED TO 2011

Revenues. Revenues during 2012 increased by \$0.5 million or 3% from \$18.9 million during 2011 to \$19.4 million in 2012. The increase in revenues was driven primarily by increased revenues at DSIT whose revenues increased by \$3.1 million (30%) to \$13.6 million compared to 2011 revenues of \$10.5 million and USSI revenues which increased by approximately \$150,000 (11%) to \$1.5 million compared to 2011 revenues of \$1.3 million. In addition, we recorded approximately \$0.7 million of revenues associated with our newly acquired OmniMetrix subsidiary. GridSense revenues decreased by \$3.5 million (49%) to \$3.7 million compared to 2011 revenues of \$7.1 million.

The increase in DSIT revenues was primarily due to progress on a major AquaShield™ DDS order (valued at \$12.3 million) which was received in the end of 2011. The increase in USSI revenues for 2012 was due to the increase in the number of proof-of-concept projects being worked on in 2012 as compared to 2011. The decrease in GridSense revenues was primarily due to 2011 revenues including the beginning of the fulfillment a major order of transformer monitors to a southeastern US electric utility which began in the second quarter of 2011 and ended in the fourth quarter of 2011 combined with decreased revenues in Australia due to a restructuring by the New South Wales government of three major utilities into a single new state owned corporation.

Gross profit. Gross profit during 2012 of \$5.2 million reflected a decrease of \$1.7 million (25%) as compared to 2011. DSIT's 2012 gross profit increased by \$1.4 million (38%) over 2011 gross profit. The increase in DSIT's gross profit was attributable to increased revenues as well as an increased gross margin. DSIT's gross margin improved from 35% in 2011 to 37% in 2012. DSIT's improved gross margin in 2012 was due to greater revenue being recognized on higher margin projects being worked on in 2012 (the SBS project in particular) as compared to 2011. GridSense's 2012 gross profit decreased by \$2.4 million (71%) compared to 2011 gross profit. The decrease in GridSense's gross profit was attributable to decreased revenues as well as reduced gross margins which deteriorated to 26% in 2012 from 47% in 2011. GridSense's gross margins were negatively impacted by a number of factors including delays in product

launch and additional logistical expenses incurred in the transfer of production from one facility to another and an inventory charge for obsolescence of approximately \$350,000. USSI continued to show a negative gross profit (\$1.0 million, an increase of \$0.9 million compared to the negative gross profit in 2011 of \$0.1 million) as it continues to incur large amounts of up front engineering design costs (non-recurring engineering costs) for its proof-of-concept projects. In addition, we recorded approximately \$0.2 million of gross profit associated with our newly acquired OmniMetrix subsidiary during the period since our acquisition in February.

Research and development (“R&D”) expenses. R&D expenses increased \$3.6 million from \$3.0 million in 2011 to \$6.6 million in 2012. R&D expenses increased at all companies with most of the increase (\$2.5 million) being attributable to USSI due to an increase in its engineering headcount, the development of automated stations for the assembly and testing of fiber optic sensors, as well as an increase in R&D materials used in product development. Increased R&D expense at GridSense (\$0.3 million)

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and at DSIT (\$0.5 million) were due to GridSense adding to its engineering team in order to accelerate development of projects and DSIT's work on joint development (with USSI) of the PAUSS next generation integrated passive/active threat detection system for underwater site protection and efforts to expand DSIT's portfolio of sonar products and land based perimeter security. In addition, OmniMetrix recorded approximately \$0.3 million of R&D expense during the period since our acquisition.

Selling, general and administrative expenses ("SG&A"). SG&A costs in 2012 increased by \$7.4 million (62%) as compared to 2011. The inclusion of OmniMetrix's SG&A costs contributed approximately \$2.5 million of this increase. DSIT's SG&A increased slightly (\$3.1 million in 2011 compared to \$3.2 million in 2012), the increase being attributable to increased marketing costs. Both GridSense and USSI recorded increases in SG&A expenses. GridSense recorded an increase of \$1.2 million (35%) while USSI recorded an increase of \$2.2 million (136%). GridSense's increased SG&A expense was primarily attributable to increased personnel costs as increased advertising and marketing related expenses. USSI's increased SG&A expense was attributable to increased sales and marketing activities combined with the costs of additional personnel associated with the facility, obtaining ISO 9001 quality certification and implementation of an SAP enterprise resource planning (ERP) system to handle the expected increase in business volume. USSI's increased SG&A expense also includes approximately \$0.3 million of non-cash stock compensation expense associated with USSI's stock option plan. Corporate general and administrative costs increased by \$1.4 million from \$3.9 in 2011 to \$5.3 million in 2012 primarily due to increased investor relations and personnel costs as well as professional fees and costs incurred in the acquisition of OmniMetrix (approximately \$300,000). Income tax benefit. In 2012, the income tax benefit of \$3.0 million includes an income tax benefit of \$3.3 million with respect to an expected net operating loss carryback of its expected consolidated tax loss in 2012. Such benefit was partially offset by income tax expense of approximately \$0.3 million on DSIT's taxable income.

Loss from discontinued operations. In August 2011, we sold our entire investment in CoaLogix. Accordingly, all of CoaLogix' activity for 2011 (a loss of \$1.9 million prior to attribution of \$0.5 million to non-controlling interests) is presented as a loss from discontinued operations.

Gain on the sale of discontinued operations. In 2011, we recorded a gain, net of income taxes of \$31.1 million, following the sale of our investment in CoaLogix.

Net loss attributable to Acorn Energy. We had a net loss attributable to Acorn Energy of \$16.7 million in 2012 compared with net income of \$35.4 million in 2011. Our loss in 2012 was primarily due to GridSense, USSI and OmniMetrix (in the period since our acquisition) losses of \$5.4 million, \$8.4 million and \$2.6 million, respectively with corporate expenses contributing an additional \$5.3 million. These losses were offset by DSIT's net income after tax of approximately \$0.5 million for 2012, Acorn's income tax benefit of \$3.3 million with respect to an expected net operating loss carryback and the non-controlling interest's share of our operations of approximately \$1.0 million.

## LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2013, we had working capital of \$22.1 million, including \$17.3 million of cash and cash equivalents, and current restricted deposits of \$0.3 million. Net cash and cash equivalents decreased during the year ended December 31, 2013 by \$8.9 million. Approximately \$17.8 million was used in operating activities of our continuing operations during the year.

The primary use of cash in operating activities during 2013 was the cash used in operations by our subsidiaries (\$6.8 million, \$4.2 million, \$2.8 million and \$1.4 million used by USSI, OmniMetrix, GridSense and DSIT, respectively) in their operations combined with the \$2.4 million of cash used in our corporate operating activities.

Net cash used in investment activities was \$2.9 million. Cash used in investment activities was primarily due to the acquisition of property and equipment (\$3.5 million). Such acquisitions of property and equipment were primarily at USSI (\$2.0 million of which approximately \$1.6 million was related to the building of sensor systems to be leased to customers) and at OmniMetrix (approximately \$1.0 million, nearly all of which was related to leasehold improvements and equipment at its new facilities). In addition, approximately \$0.3 million was used to fund severance assets at DSIT. Partially offsetting those uses of cash were the proceeds received from the sale of OMI (\$0.3 million) by GridSense and the net cash from restricted cash (\$0.6 million) activity at DSIT.

Net cash of \$12.0 million was provided by financing activities during 2013. Cash of approximately \$10.4 million was received from our October capital raise plus and additional \$2.3 million was provided from the net change in short-term bank credit. Partially offsetting these proceeds was the payment of dividends (\$0.5 million) and long-term debt repayments (\$0.2 million) during the year.



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At December 31, 2013, DSIT had approximately \$200,000 of unrestricted cash in banks and NIS 4.0 million (approximately \$1.2 million) in Israeli credit lines available to it from two Israeli banks (approximately \$576,000 from each bank), \$184,000 of which was then being used. The lines-of-credit are subject to maintaining certain financial covenants. At December 31, 2013, DSIT was in compliance with its financial covenants. At December 31, 2013, DSIT also had deposited with two Israeli banks approximately \$306,000 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.

In July 2013, Acorn entered into a new Stock Purchase Agreement with DSIT pursuant to which Acorn converted a prior loan of approximately \$0.8 million into additional ordinary (common) shares of DSIT. Acorn also converted \$2.8 million in advances and loans into DSIT's participating preferred stock and purchased an additional \$0.8 million of participating preferred stock. In September 2013, the Company informed DSIT that it would suspend payment of funds it committed to invest in DSIT over the remainder of 2013 and into 2014. The Stock Purchase Agreement will need to be amended to reflect this decision. Acorn is unable to predict the terms of the amendment at this time.

We believe that DSIT will have sufficient liquidity to finance its activities from cash flows from its own operations over the next 12 months based on its current cash balance, cash generated from operations and continued utilization of its lines-of-credit, though from time-to-time, DSIT may encounter short-term cash shortfalls due to the timing and/or delays in customer payments. In January 2014, Acorn lent DSIT \$1.0 million for short-term working capital needs. DSIT anticipates repaying this loan prior to its expiration date of March 31, 2014. On February 28, 2013, DSIT had approximately \$0.7 million of unrestricted cash in banks and was not utilizing any of its lines-of-credit.

In December 2013, GridSense signed an amendment to its Loan and Security Agreement with a bank to provide it with an expansion of its revolving line-of-credit to \$1.5 million. The line-of-credit expires on June 30, 2014.

Advances from the line-of-credit bear interest at a variable annual interest rate equal to the greater of 3.25% above the Prime Rate in effect (3.25% at December 31, 2013) or 6.5%. The line-of-credit is also subject to certain covenants. GridSense was in compliance with its covenants at December 31, 2013. As of December 31, 2013, GridSense was utilizing \$958,000 of this line-of-credit. Acorn has guaranteed to the bank amounts outstanding under the GridSense line-of-credit. Acorn was in compliance with the covenants applicable to it under the guaranty at December 31, 2013.

During 2013, Acorn continued to provide funds for GridSense's working capital needs. During 2013, Acorn invested \$1.5 million in GridSense for its working capital needs plus an additional \$480,000 to help fund the costs of the restructuring noted above. In addition, during the second half of 2013, we also lent GridSense \$1,125,000 to support the order it received from a major national utility based on a partnership with a regional smart grid company and for additional working capital. This loan was repaid in part in 2013 (\$850,000) with balance of \$275,000 being repaid in February 2014.

Following the restructuring of activities at GridSense, we believe that with a reduced cost structure and improving sales, GridSense will be significantly less reliant on us for working capital support. The Acorn Board has approved providing GridSense with a \$550,000 revolving working capital loan during 2014. We have no assurance that GridSense will meet its goal of being cash flow neutral in 2014 or increase its sales and 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 funding from us in GridSense may be limited by the working capital needs of our corporate activities and other operating companies. On February 28, 2014, GridSense had cash on hand of approximately \$0.1 million and was utilizing approximately \$1.4 million of its line-of-credit.

USSI will continue to require working capital support while it continues to transition from development to production and as it continues to work on refining its manufacturing capabilities. Acorn continues to provide funds for USSI's working capital needs and expects to do so in the future. During 2013 we invested \$7.4 million in USSI to support its

working capital requirements and an additional \$1.3 million in 2014. We expect that USSI's working capital requirements will ultimately lessen if and when it begins to have commercial scale orders. We cannot however, provide any assurance as to whether or when such orders will be received. Accordingly, USSI is proactively monitoring its operating expenses to ensure that they are in line with its current and expected near term activities and will make adjustments as necessary. We expect that we will continue investing additional funds in USSI and anticipate not less than an additional \$3.4 million to be invested in USSI in 2014.

In November 2013, USSI reached agreement with its bank for an expanded \$1.5 million line-of-credit which may be further increased to \$2.0 million if USSI reaches certain revenue milestones. Advances from the line-of-credit bear interest at a variable annual interest rate equal to the greater of 1.0% above the Prime Rate in effect (3.25% at December 31, 2013) or 6.5%. The line-of-credit is also subject to certain financial covenants. USSI was in compliance with its financial covenants on December 31, 2013.

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Despite the increased line, we have no assurance that USSI's future capital needs will not exceed the amount of the credit line and our budgeted investment for 2014, that USSI will satisfy the covenants necessary to access any or all of the loan amount

or that USSI will generate sufficient cash flow in the future to fund its operations in the absence of additional funding sources. USSI may need additional funds if revenues fail to meet projections or to fund a rapid expansion to meet product demand, respond to competitive pressures or acquire complementary products, businesses or technologies. Additional financing for USSI may be in the form of an expanded bank line, new investment by others, a loan or investment by Acorn, or a combination of the above. The availability and amount of any additional investment from us in USSI may be limited by the working capital needs of our corporate activities and other operating companies. On February 28, 2014, USSI had \$70,000 of cash and was utilizing \$850,000 of its line-of-credit.

OmniMetrix currently has no other sources of financing other than its sales and investments by Acorn. During 2013, Acorn invested in or lent to OmniMetrix a total of \$3.7 million. Based on new potential sales opportunities being developed at OmniMetrix, we have reevaluated our decision not to provide additional cash for the business. As previously reported, we had anticipated lending up to \$1.0 million to OmniMetrix in 2013, but they required only \$0.7 million. Our Board recently approved an additional \$0.5 million loan to OmniMetrix to provide working capital to pursue the new sales opportunities discussed above. We also have begun sharing resources between OmniMetrix and GridSense in areas such as information technology, and have identified other areas where potential synergies exist. In order to best position each company for growth in value, we will continue to evaluate the degree to which combining the businesses makes sense.

On February 28, 2014, OmniMetrix had cash on hand of approximately \$20,000. In 2014, OmniMetrix may need additional financing above our expected loans to them as noted above. The level of additional financing will be dependent upon the level of penetration by OmniMetrix into the power generation monitoring market and the realization of 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. OmniMetrix was unsuccessful in discussions with a bank to provide working capital financing and there is no assurance that such financing from another bank or any other party will be available in sufficient amounts, in a timely manner or on acceptable terms. 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.

On December 31, 2013, the Company had approximately \$2.8 million of unrestricted cash and cash equivalents held in banks outside the United States (\$2.7 million in banks in Israel, of which \$2.5 million belongs to Acorn and \$0.2 million belongs to DSIT, and \$0.1 million in a bank in Australia which belongs to GridSense). Due to Israeli tax and company law constraints and DSIT's own cash and finance needs as well as GridSense's cash needs, the Company does not expect any foreign earnings to be repatriated to the United States in the near future. If the approximately \$2.8 million of unrestricted cash and cash equivalents held in banks outside the United States were to be repatriated, we would expect that approximately \$0.3 million of that cash to be subject to additional taxation upon repatriation. As at February 28, 2014, the Company's corporate operations (not including cash at any of our subsidiaries) had a total of approximately \$13.0 million in cash and cash equivalents (\$10.5 million in U.S. banks and \$2.5 million in Israeli banks (all of which can be repatriated without any tax consequence)) reflecting a \$2.8 million decrease from the December 31, 2013 balance of \$15.8 million. The decrease in corporate cash is primarily due to the \$1.3 million transferred to USSI, the \$1.0 million lent to DSIT and \$330,000 lent to OmniMetrix and corporate expenses offset by the \$275,000 we received from GridSense as repayment of the balance of our loan to them.

We believe that our current cash plus the cash generated from operations and borrowing from available lines of credit, if necessary, will provide more than sufficient liquidity to finance the operating activities of Acorn and the operations of its operating subsidiaries at their current level of operations for the foreseeable future and for the next 12 months in

particular.

#### Contractual Obligations and Commitments

The table below provides information concerning obligations under certain categories of our contractual obligations as of December 31, 2013.

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## CASH PAYMENTS DUE TO CONTRACTUAL OBLIGATIONS

	Years Ending December 31, (in thousands)				
	Total	2014	2015-2016	2017-2018	2019 and thereafter
Bank and other debt, utilized lines-of-credit and capital leases	\$2,303	\$2,303	\$—	\$—	\$—
Operating leases	2,695	978	1,351	257	109
Potential severance obligations (1)	5,072	249	1,326	135	3,362
Minimum royalty payments (2) (3) (4)	400	50	100	100	150
Total contractual cash obligations	\$10,470	\$3,580	\$2,777	\$492	\$3,621

We expect to finance these contractual commitments 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, 2013, we accrued a total of \$5.0 million for potential severance obligations to our Israeli employees of which approximately \$3.7 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 April 2012, USSI and Northrop Grumman signed a license agreement involving several of Northrop Grumman's fiber-optic technology patents. The license agreement is subject to an annual minimum royalty payment of 10% of the net selling price of each unit of licensed products used or sold during the term of the agreement. The agreement also calls for a minimum annual payment of \$50,000 for the first ten years of the agreement beginning in 2012. The table above includes as a royalty payment only the minimum payment due.

(3) In June 2012, the Company's 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.

(4) GridSense is required to pay an aggregate royalty of 6% of the sales of a particular product to two employees. The royalty amount for the year ended December 31, 2013 was \$25,000. The above table does not include any royalties that may be paid under this arrangement.

#### 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, 2013, such guarantees totaled approximately \$1.2 million and were due to expire in 2014. As security for a portion of these guarantees, DSIT has deposited approximately \$0.3 million which is shown as current restricted cash on our Consolidated Balance Sheets. 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 throughout the 2014 calendar year.

Impact of Inflation and Interest Rate & Currency Fluctuations

In the normal course of business, we are exposed to fluctuations in interest rates on our lines-of-credit (\$1.2 million available) to finance our operations in Israel. Such lines-of-credit and loan bear interest at interest rates that are linked to the Israeli prime rate (2.50% at December 31, 2013 and 3.25% at December 31, 2012). Our GridSense and USSI subsidiaries are also exposed to fluctuations in interest rates on their lines of credit (\$1.5 million for each). Their lines of credit are linked to the U.S. prime rate (3.25% at both December 31, 2013 and December 31, 2012).

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Our non-US dollar monetary assets and liabilities (net liabilities of approximately \$1.1 million at December 31, 2013) 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 2014, 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 2013 the appreciation of the NIS against the dollar was 7.0% and in 2012 the NIS appreciated against the dollar by 2.3%.

As of December 31, 2013, 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, \$3.7 million of our backlog of projects are contracts and orders that are not denominated in US dollars.

In addition, our non-US dollar assets and liabilities (net liability of less than \$0.1 million at December 31, 2013) 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 2013, the U.S. dollar appreciated against the Australian dollar by 13.8%. During 2012, the Australian dollar appreciated against the U.S. dollar by 2.2%.

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## SUMMARY QUARTERLY FINANCIAL DATA (Unaudited)

The following table sets forth certain of our unaudited quarterly consolidated financial information for the years ended December 31, 2012 and 2013. This information should be read in conjunction with our Consolidated Financial Statements and the notes thereto.

	2012				2013			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenues	\$4,183	\$5,727	\$4,713	\$4,796	\$5,716	\$5,233	\$4,982	\$5,825
Cost of sales	2,983	4,241	3,225	3,767	3,591	3,961	3,923	5,125
Gross profit	1,200	1,486	1,488	1,029	2,125	1,272	1,059	700
Research and development expenses, net	1,318	1,699	1,754	1,819	2,001	2,116	2,219	1,839
Selling, general and administrative expenses	4,229	4,390	5,272	5,470	5,256	4,970	4,995	4,595
Impairments of goodwill and intangibles	—	—	—	—	—	1,116	5,615	—
Restructuring and related charges	—	—	—	—	—	594	772	23
Operating loss	(4,347 )	(4,603 )	(5,538 )	(6,260 )	(5,132 )	(7,524 )	(12,542 )	(5,757 )
Finance income (expense), net	(23 )	130	(160 )	110	14	75	(9 )	42
Loss before taxes on income	(4,370 )	(4,473 )	(5,698 )	(6,150 )	(5,118 )	(7,449 )	(12,551 )	(5,715 )
Income tax benefit (expense)	(75 )	1,064	1,487	480	(69 )	(16 )	(143 )	72
Net loss	(4,445 )	(3,409 )	(4,211 )	(5,670 )	(5,187 )	(7,465 )	(12,694 )	(5,643 )
Net loss attributable to non-controlling interests	256	205	276	287	212	291	382	390
Net loss attributable to Acorn Energy, Inc	\$(4,189)	\$(3,204)	\$(3,935)	\$(5,383)	\$(4,975)	\$(7,174)	\$(12,312)	\$(5,253)
Basic and diluted net loss per share attributable to Acorn Energy, Inc. shareholders:								
Total attributable to Acorn Energy, Inc. shareholders.	\$(0.24 )	\$(0.18 )	\$(0.22 )	\$(0.30 )	\$(0.28 )	\$(0.40 )	\$(0.68 )	\$(0.24 )
Weighted average number of shares outstanding attributable to Acorn Energy, Inc. – basic and diluted	17,680	17,912	17,934	18,038	18,077	18,091	18,091	21,450



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ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

General

We are required to make certain disclosures regarding our financial instruments, including derivatives, if any. A financial instrument is defined as cash, evidence of an ownership interest in an entity, or a contract that imposes on one entity a contractual obligation either to deliver or receive cash or another financial instrument to or from a second entity. Examples of financial instruments include cash and cash equivalents, deposits, trade accounts receivable, loans, investments, trade accounts payable, accrued expenses, options and forward contracts. The disclosures below include, among other matters, the nature and terms of derivative transactions, information about significant concentrations of credit risk, and the fair value of financial assets and liabilities.

Foreign Currency Risk

The translation of the balance sheets of our Israeli operations from NIS into U.S. dollars is sensitive to changes in foreign currency exchange rates as are the balance sheets of our Australian operations from Australian dollars into U.S. dollars. These translation gains or losses are recorded either as cumulative translation adjustments ("CTA") within stockholders' equity, or foreign exchange gains or losses in the statement of operations. In 2013 the NIS strengthened in relation to the U.S. dollar by 7.0%. In 2013 the US dollar strengthened relative to the Australian dollar by 13.8%. To test the sensitivity of these operations to fluctuations in the exchange rate, the hypothetical change in CTA and foreign exchange gains and losses is calculated by multiplying the net assets of these non-U.S. operations by a 10% change in the currency exchange rates.

As of December 31, 2013, a 10% weakening of the U.S. dollar against the NIS and against the Australian dollar would have decreased stockholders' equity by approximately \$300,000 (arising from a CTA adjustment of approximately \$180,000 and net exchange losses of approximately \$120,000). These hypothetical changes are based on adjusting the December 31, 2013 exchange rates by 10%.

From time to time, our DSIT subsidiary enters into various forward contracts which do not qualify as hedging instruments under accounting principles to try to mitigate its foreign currency exposure risks. At December 31, 2013, DSIT did not have any open forward contracts. Furthermore, \$3.7 million of our backlog of projects are contracts and orders that are not denominated in US dollars.

GridSense does not employ specific strategies, such as the use of derivative instruments or hedging, to manage its foreign currency exchange rate exposures.

Fair Value of Financial Instruments

Fair values of financial instruments included in current assets and current liabilities are estimated to approximate their book values due to the short maturity of such investments.

Concentrations of Credit Risk

Financial instruments, which potentially subject us to concentrations of credit risk, consist principally of cash and cash equivalents, restricted deposits, trade receivables and unbilled revenue. The counterparty to a significant amount of our cash equivalents is a money market of a major financial institution. We do not believe there is significant risk of non-performance by this counterparty. The counterparty to our restricted deposits are two major Israeli banks. We do not believe there is significant risk of non-performance by these counterparties. Approximately 33% of the trade accounts receivable at December 31, 2013 was due from two customers that pay their trade 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 our customer base. Approximately 77% of the balance in unbilled revenue at December 31, 2013 was due from four 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.

Interest Rate Risk

In the normal course of business, we are exposed to fluctuations in interest rates on our lines-of-credit (\$1.2 million available; \$184,000 of which was being used at December 31, 2013) to finance our operations in Israel. Such

lines-of-credit and

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loan bear interest at interest rates that are linked to the Israeli prime rate (2.50% at December 31, 2013 and 3.25% at December 31, 2012).

Our GridSense and USSI subsidiaries are also exposed to fluctuations in interest rates on their lines of credit (\$1.5 million available for each; \$958,000 and \$1,160,000 being used at December 31, 2013). Their lines of credit are linked to the U.S. prime rate (3.25% at both December 31, 2013 and December 31, 2012).

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ITEM 8. FINANCIAL STATEMENTS AND  
SUPPLEMENTARY DATA

Furnished at the end of this report commencing on page F-1.

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ITEM CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND  
9. FINANCIAL DISCLOSURE

None.

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ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Act”) as of the end of the period covered by this annual report on Form 10-K. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of such date, at a reasonable level of assurance, in ensuring that the information required to be disclosed by our company in the reports we file or submit under the Act is (i) accumulated and communicated to our management (including the Chief Executive Officer and Chief Financial Officer) in a timely manner, and (ii) recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms.

Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the criteria in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 1992. Based on our evaluation, management has concluded that our internal control over financial reporting was effective as of December 31, 2013. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. The effectiveness of our internal controls over financial reporting as of December 31, 2013, has been audited by Friedman LLP, our independent registered public accounting firm, as stated in their attestation report contained in their report, which is included herein.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended) during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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ITEM 9B. OTHER INFORMATION

None.

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## PART III

## ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

## Directors and Executive Officers

Set forth below is certain information concerning the directors and certain officers of the Company:

Name	Age	Position
Christopher E. Clouser	62	Director, Chairman of the Board, Chairman of our Compensation Committee and member of our Audit and Nominating Committees
John A. Moore	48	Director, President and Chief Executive Officer
Mannie L. Jackson	74	Director and member of our Compensation Committee
Robert E. McKee III	67	Director and Chairman of our Nominating Committee
Andy H. Sassine	49	Director and member of our Audit Committee
Samuel M. Zentman	68	Director and Chairman of our Audit Committee
Jim Andersen	58	Chief Executive Officer and President of USSI
Joseph Musanti	56	Chief Operating Officer of the Company, Chief Executive Officer and President of OmniMetrix and GridSense, Chief Financial Officer of USSI
Benny Sela	66	Chief Executive Officer and President of DSIT
Michael Barth	53	Chief Financial Officer of the Company and DSIT
Heather K. Mallard	50	Vice President, General Counsel & Secretary

Christopher E. Clouser was appointed to the Board in November 2011 and became Chairman in November 2013. He also chairs our Compensation Committee, is a member of our Audit and Nominating Committees and serves on each of our subsidiary boards of directors or managers. Mr. Clouser has held senior level positions including: President of Burger King Brands; President and CEO of Preview Travel/Travelocity; CEO of the Minnesota Twins Major League Baseball Club; Senior Vice President & Chief Communications Officer of Northwest Airlines; Corporate Vice President of Public Affairs and Communications of Hallmark Cards; and Senior Vice President and Chief Administrative Officer of Sprint. In addition, he has served on the corporate Boards of Directors of Piper Jaffray Inc., Gibson Guitar/Baldwin Corp., Mall of America, Pepsi Americas, Marquette Bancshares, Delta Beverage and Mesaba Aviation. He presently serves as Chairman of the International Tennis Hall of Fame and Museum in Newport, Rhode Island and as a member of the Advisory Board of privately held Northstar. Prior to his current positions, he was President of the Association of Tennis Professions (ATP), where he also served as Chairman of ATP Properties and Chair of the ATP Foundation.

**Key Attributes, Experience and Skills.** Mr. Clouser brings to Acorn a wealth of operational and managerial experience culled from decades of service in key roles at major corporations. He has particular skills in marketing and business development, which will enable the Board to better position our companies for customer growth.

John A. Moore has been a director and President and Chief Executive Officer of our Company since March 2006. Mr. Moore was elected Chairman of the Board on March 25, 2009 and served in that role until November 13, 2012. Mr. Moore also served as a director of Comverge from March 2006 through January 2008. Mr. Moore was the President and founder of Edson Moore Healthcare Ventures, which he founded to acquire \$150 million of drug delivery assets from Elan Pharmaceuticals in 2002. Mr. Moore was Chairman and EVP of ImaRx Therapeutics, a drug and medical therapy development company, from February 2004 to February 2006 and Chairman of Elite Pharmaceuticals from February 2003 to October 2004. He was CEO of Optimer, Inc. (a research based polymer development company)



from inception in 1994 until 2002 and Chairman from inception until its sale in February 2008 of Sterling Capital. He previously served as a member of the Board of Directors of Voltaix, Inc. prior to its sale to Air Liquid. Mr. Moore is currently a Director on the Board of Caesar Rodney Institute, a nonprofit public policy organization in Delaware, and USEED LLC, an organization providing fundraising solutions for entrepreneurial projects originating at colleges and universities. He also serves as a director on the Board of Directors or Managers for each of our subsidiaries.

**Key Attributes, Experience and Skills.** Mr. Moore brings his strategic vision for our Company to the Board together with his leadership and business, deal making and investor relations skills. Mr. Moore has an immense knowledge of our Company and the energy technology industry which is beneficial to the Board. Mr. Moore's service as a Director and CEO of the Company

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bridges a critical gap between the Company's management and the Board, enabling the Board to benefit from management's perspective on the Company's business while the Board performs its oversight function.

Mannie L. Jackson was elected to the Board in September 2012 and serves as a member of our Compensation Committee. Mr. Jackson played professional basketball for a brief time before starting his business career at General Motors, Inc. He later served as President and General Manager of Honeywell's Telecommunications Business and then as Corporate Executive VP of worldwide Sales and Marketing before retiring as a Corporate Officer and Senior Vice President in 1993. Mr. Jackson helped found and chaired the Executive Leadership Council which represents the most senior African American corporate executives in Fortune 500 companies and previously served on the Board of Directors of several Fortune 500 companies, including Ashland Inc., Reebok International, Stanley Works, Jostens and True North. Mr. Jackson is currently Chairman of privately held Boxcar Holdings, LLC, and a former owner and Chairman of the Board of the Harlem Globetrotters. He is also former Chairman of the Board of Trustees of the Naismith Basketball Hall of Fame and is a member of the University of Illinois Foundation Board of Directors.

**Key Attributes, Experience and Skills.** Mr. Jackson brings to the Board deep operational, strategic planning and senior managerial experience; as well as access to a network of domestic and international business relationships.

Robert E. McKee III was elected to the Board in May 2013 and is Chairman of our Nominating Committee. Mr. McKee had a 37-year career at ConocoPhillips and Conoco, Inc., including over ten years as Executive Vice President, Exploration and Production (1992-2003). He was the senior oil advisor to the Coalition Provisional Authority and the Iraqi Oil Ministry in Iraq to manage the rebuilding of its oil industry from September 2003 to March 2004. He is also a Director of QEP Resources, an unconventional oil driller with a \$5 billion market capitalization, Post Oak Bank and a board member on the Colorado School of Mines Foundation.

**Key Attributes, Experience and Skills.** Rob McKee is a widely recognized and experienced energy industry expert both domestically and internationally. He brings a tremendous background and a broad understanding of energy technologies and customer needs to our Board.

Andy H. Sassine was elected to the Board in September 2013 and is a member of our Audit Committee. Mr. Sassine worked as a portfolio manager for Fidelity Investments from 1999 to 2012 holding numerous roles during his tenure. Prior to joining Fidelity, Mr. Sassine was a vice president in the Acquisition Finance Group at Fleet National Bank and prior to joining Fleet, he managed a portfolio of highly leveraged middle market companies at Continental Bank and Heller Financial in Chicago. Mr. Sassine is a past member of the Henry B. Tippie College of Business, University of Iowa, Board of Advisors and serves on the Clarke Schools for Hearing and Speech, Board of Trustees. He is a member of the Board of Directors of CNS Response, Inc. (CNSO.OB), a clinical decision support company providing reference data and analytical tools for clinicians and researchers in psychiatry, and is a member of both its Audit and Governance and Nominations Committee. He was recently elected for a term commencing April 1, 2014 to the Board of Directors of FluoroPharma Medical, Inc. (FPMI), a company specializing in the development of novel diagnostic imaging products that utilize positron emission tomography (PET) technology for the detection and assessment of disease before clinical manifestation. In addition, he is a member of the Board of Directors of two privately-held San Diego based companies, Freedom Meditech, Inc. and MD Revolution Inc. Mr. Sassine earned a Bachelor of Arts degree at the University of Iowa in 1987 and an MBA from the Wharton School at the University of Pennsylvania in 1993.

**Key Attributes, Experience and Skills.** Mr. Sassine was selected to serve as a director because of his extensive investment management experience and understanding of the capital markets.

Samuel M. Zentman has been one of our directors since November 2004 and currently serves as Chairman of our Audit Committee. From 1980 until 2006, Dr. Zentman was the president and chief executive officer of a

privately-held textile firm, where he also served as vice president of finance and administration from 1978 to 1980. From 1973 to 1978, Dr. Zentman served in various capacities at American Motors Corporation. He holds a Ph.D. in Complex Analysis. Dr. Zentman serves on the boards of Powersafe Technology Corp. and Hinson & Hale Medical Technologies, Inc., as well as several national charitable organizations devoted to advancing the quality of education.

**Key Attributes, Experience and Skills.** Dr. Zentman's long-time experience as a businessman together with his experience with computer systems and software enables him to bring valuable insights to the Board. Dr. Zentman has a broad, fundamental understanding of the business drivers affecting our Company and also brings leadership and oversight experience to the Board.

Jim Andersen serves as CEO and President of USSI, positions that he has held since he founded USSI in October 2007. Mr. Andersen began his career as an Engineering Officer on US Navy Nuclear Submarines, and upon leaving the Navy, went on

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to hold a variety of technical and senior management positions in high technology companies, including Westinghouse, Whitehall/Hydroscience, Litton Industries and Northrop Grumman. He was the Business Unit Director for Litton's Fiber Optic Acoustic Systems, heading the company's fastest growing business unit from 1995 to 2002. At Litton, he landed the first major (and still the largest) production contract for fiber optic sensors, a sonar system on the US Navy's newest Virginia class submarines, valued at over \$400 million. Prior to that, Mr. Andersen held technical and executive positions in companies that developed systems for oil exploration and ocean applications.

Joe Musanti was elected Chief Operating Officer of the Company in January 2014 and also serves as President and CEO of GridSense and OmniMetrix, and previously served as GridSense's Chief Operating Officer and Chief Financial Officer. He also serves as Chief Financial Officer of USSI under an arrangement between USSI and GridSense. Mr. Musanti currently also serves on the Board of Directors of GridSense and USSI, and chairs the USSI board. Prior to these management roles, he served on the Company's Board from September 2007 until December 2012. Mr. Musanti had also been the General Manager/CFO of Main Tape, a leading manufacturer of surface protection film and paper products, based in Cranbury, New Jersey. Prior to the acquisition of Film Tech Inc. and their merger into Main Tape in 2010 Mr. Musanti served as President of Main Tape Inc. From 2003 to 2006, prior to becoming its President, Mr. Musanti served as Vice President of Finance of Main Tape. Prior to that, Mr. Musanti was Vice President Finance of Rheometric Scientific, Inc., a manufacturer of thermal analytical instrumentation products where he held significant domestic and foreign, operational, managerial, financial and accounting positions.

Benny Sela serves as the CEO and President of DSIT, a position he has held since July 2007. Previously, he held the position of Executive Vice President and head of the company's Real Time Division since 1996. Mr. Sela joined DSIT in February 1989. Prior to that, Mr. Sela served in the Israeli Air Force reaching the position of Lt. Colonel (Ret.). During his service in the Israeli Air Force, Mr. Sela was head of the Electronic Warfare branch, working on both the F-16 and Lavi projects. He holds a B.Sc. in Electrical Engineering, a Master's Degree in Operations Research, and an MBA.

Michael Barth has been our Chief Financial Officer and the Chief Financial Officer of DSIT since December 2005. For the six years prior, he served as Deputy Chief Financial Officer and Controller of DSIT. Mr. Barth is a Certified Public Accountant in both the U.S. and Israel and has over twenty five years of experience in public and private accounting. He serves on the Boards of GridSense, OmniMetrix and USSI.

Heather K. Mallard joined the Company as Vice President, General Counsel and Secretary in February 2012. For the twenty-three years prior, Ms. Mallard practiced law with Womble Carlyle Sandridge & Rice, LLP in the areas of mergers and acquisitions, securities compliance and offerings, commercial contracting and strategic partnering.

**Audit Committee; Audit Committee Financial Expert**

The Company has a separate designated standing Audit Committee established and administered in accordance with SEC rules. The three members of the Audit Committee are Samuel M. Zentman, Christopher E. Clouser and Andy H. Sassine. The Board of Directors has determined that each member of the Audit Committee meets the independence criteria prescribed by NASDAQ governing the qualifications for audit committee members and each Audit Committee member meets NASDAQ's financial knowledge requirements. Our Board has determined that Dr. Zentman qualifies as an "audit committee financial expert," as defined in the rules and regulations of the SEC.

Compliance with Section 16(a) of the Securities Exchange Act of 1934

Section 16(a) of the Securities Exchange Act of 1934 (the “Exchange Act”) requires our executive officers and directors, and persons who own more than 10% of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC. These persons are also required by SEC regulation to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of such forms or written representations from certain reporting persons, we believe that during 2013 our executive officers and directors complied with the filing requirements of Section 16(a).

#### Code of Ethics

We have adopted a code of ethics that applies to our principal executive officer, principal financial officer, and principal accounting officer or controller, and/or persons performing similar functions. Our code of ethics may be accessed on the Internet at <http://www.acornenergy.com/rsc/docs/55.pdf>

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We intend to satisfy any disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of our code of ethics by posting such information on our website, at the Internet address specified above.

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ITEM 11. EXECUTIVE  
COMPENSATION

EXECUTIVE AND DIRECTOR COMPENSATION

Compensation Discussion and Analysis

The following discussion and analysis of compensation arrangements of our named executive officers for the year ended December 31, 2013 should be read together with the compensation tables and related disclosures set forth below. This discussion contains forward looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt may differ materially from currently planned programs as summarized in this discussion.

**Compensation determinations.** Our executive compensation is administered by the Compensation Committee of the Board of Directors (the "Committee"). The members of the Committee in 2013 were Christopher E. Clouser (Chairman since October 3, 2013), Richard J. Giacco (through September 20, 2013) and Mannie L. Jackson (since October 3, 2013), all of whom were independent in accordance with NASDAQ's requirement for independent Director oversight of executive officer compensation. In fulfilling its role, the Committee (1) reviews periodically and approves the Company's general philosophy concerning executive compensation and the components of the Company's executive compensation program to align them with the Company's compensation philosophy; (2) reviews and approves goals and objectives that it considers relevant to the compensation of the Company's chief executive officer, evaluates his performance and sets the terms of his compensation; and (3) establishes the compensation of each of the Company's other executive officers, as well approves employment agreements, severance agreements and change in control agreements for the Company's chief executive officer and other executive officers. In addition, the Committee administers and periodically evaluates the Company's long-term and short-term incentive plans and employee benefit plans, together with the Company's methodology for awarding equity-based and other incentive compensation to all non-executive employees (including new hires) and other service providers and the levels of such compensation.

**Compensation objectives and philosophy.** Our executive compensation programs are designed to motivate and reward sustainable long-term performance, and a key component of our executive compensation is long-term incentives. This ensures that executive compensation aligns appropriately with long-term stockholder interests and the Company's performance. We periodically evaluate our executive compensation programs and make changes when necessary to ensure alignment with stockholder interests. The Board believes that the objectives of our executive compensation program are appropriate for a company of our size and stage of development and that our compensation policies and practices help meet those objectives.

**Compensation program.** The elements of our compensation program include base salary and performance-based cash bonuses, as well as long-term compensation in the form of stock options. The Board believes that our executive compensation program achieves an appropriate balance between fixed compensation and variable incentive compensation and pays for performance. The Board also believes that the Company's executive compensation program effectively aligns the interests of our executive officers with those of our stockholders by tying a significant portion of their compensation to the Company's performance and by providing a competitive level of compensation needed to recruit, retain and motivate talented executives critical to the Company's long-term success. The costs of our compensation programs are a significant determinant of our competitiveness. Accordingly, we are focused on ensuring that the balance of the various components of our compensation program is optimized to motivate employees to achieve our corporate objectives on a cost-effective basis.

In March 2012, the Compensation Committee engaged an independent compensation consultant ("Consultant") to assist it in reviewing our current executive compensation practices and recommend an overall compensation strategy for the executive officers of the Company, including assistance in reviewing the compensation to be included in a new

employment agreement for Mr. Moore for 2013.

Executive compensation for 2013. Changes in each named executive officer's base compensation for 2013, together with the methodology for determining their respective bonuses, if any, are described below. The Boards of Directors of our subsidiary companies (DSIT, GridSense, OmniMetrix and USSI) determine the compensation of their own executive officers and other employees; provided that we made a separate bonus award to Mr. Barth in 2012 as described below.

John A. Moore. We awarded Mr. Moore a discretionary cash bonus of \$150,000 for 2011 in April, 2012. Mr. Moore's maximum bonus potential under his contract as then in effect was \$200,000. The Compensation Committee had agreed with Mr. Moore following its appointment in November 2011 that his annual bonus would be based on three factors: (1) success in acquisitions/dispositions (up to 30%), (2) performance of our stock versus peer companies as determined by the Compensation

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Committee (up to 30%), and (3) revenue and EBTIDA performance of the subsidiaries versus budget and parent company expenses versus budget (up to 40%). Mr. Moore was also advised that, absent some major change prior to the end of 2011, the Committee would recognize that he had fully earned the 30% related to success in acquisitions/dispositions because of the extraordinary return from the sale of Coalogix. Mr. Moore agreed to that process. Following the finalization of the Corporation's 2011 financial results, the Committee reviewed the performance of Acorn's stock versus a peer group comprised of COMV (Comverge), ELON (Echeleon), ENOC (EnerNOC), ITRI (Itron), SFE (Safeguard Scientifics), TINY (Harris & Harris) and USU (USEC Inc.) and the revenue and EBTIDA performance of the subsidiaries versus budget and parent company expenses versus budget. The bonus determined as appropriate by the Committee for 2011 was \$150,000. Mr. Moore also received an additional cash bonus of \$25,000 in September, 2012 representing the remainder of a 2011 bonus award based on Acorn receiving the balance of our portion of the escrowed sales proceeds from the sale of CoaLogix, which were in fact paid in full to us in September 2012.

Effective January 1, 2013, Mr. Moore and the Company entered into a new five-year Employment Agreement (the "2013 Agreement"). The Compensation Committee contracted in late 2011 with a compensation consultant previously utilized by the Board to assist in developing compensation under the extension of Mr. Moore's previous employment agreement, but ultimately decided as a part of a more comprehensive review of executive and Board compensation to interview and ultimately hire a different party. The original consultant's report was reviewed but not relied upon in developing Mr. Moore's compensation under the 2013 Agreement. As of March 1, 2012, the term of Mr. Moore's existing employment agreement had been amended to continue on a month-to-month basis in anticipation of negotiating and finalizing a new employment agreement. Mr. Moore offered a proposal for the terms of a new employment agreement and the end result was the product of arms' length negotiations between Mr. Moore and the Compensation Committee. The Compensation Committee retained outside legal counsel in connection with the negotiations with Mr. Moore, in addition to conferring with our General Counsel concerning the agreement. Because Mr. Musanti had been retained by the Company for services to be performed in 2013 (as CFO and COO of GridSense and CFO of USSI) shortly before the date at which the 2013 Agreement was scheduled for approval by the Compensation Committee, Mr. Musanti recused himself from final deliberations regarding the 2013 Agreement. Since his recusal left the Committee with a single member, the 2013 Agreement was also considered and ratified by the Corporation's independent directors. The Consultant and our Compensation Committee used peer group benchmarking to assist in setting Mr. Moore's compensation. In so doing, they focused exclusively on market capitalization as the most representative statistic in developing the peer group comparison within the Energy Services Company sector for benchmarking Mr. Moore's position. As noted above, the Committee found the peer groups in the Consultant's report to be more relevant to the Company's business model. The Consultant relied on a regression analysis technique which adjusted the sample so that it was able to provide the Committee with more direct and relevant comparisons of data. Benchmarked items include salary, total cash compensation and total direct compensation. The data was used to ensure that Mr. Moore is paid at approximately the 50th percentile of benchmarked companies. Benchmarked companies included the following:

## USEC Inc. (USU)

EnerNOC, Inc. (ENOC)

Echelon Corporation (ELON)

Warren Resources, Inc. (WRES)

Panhandle Oil and Gas Inc. (PHX)

Callon Petroleum Company (CPE)

Dawson Geophysical Company (DWSN)

Safeguard Scientifics, Inc. (SFE)

Endeavour International Corporation (END)

Goodrich Petroleum Corporation (GDP)

Oyo Geospace (GEOS)  
Bill Barrett Corp. (BBG)  
Itron Inc. (ITRI)  
Ultra Petroleum Corp. (UPL)  
Harris & Harris Group (TINY)  
Hercules Technology Growth Capital (HTGC)  
Energy Partners Ltd. (EPL)

The 2013 Agreement provides that Mr. Moore shall receive an annual cash bonus with respect to each year of up to one hundred percent (100%) of his aggregate base salary in such year, based upon the attainment of agreed upon personal and Company performance goals and milestones for the preceding fiscal year, as mutually determined by the Board (or any committee of the Board delegated authority over employee compensation matters) and Mr. Moore. The actual amount of any bonus payable by the Company to Mr. Moore is determined on a sliding scale based upon his attainment of such targets for the applicable fiscal year, such that the amount of any bonus payable by the Company will be directly proportional to the percentage of such target attained

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by Mr. Moore during the applicable year as reasonably determined by the Board in its good faith judgment. Mr. Moore did not receive a bonus for 2013 and agreed to reduce his salary to \$318,750 per annum effective October 16, 2013.

Michael Barth. Mr. Barth's base compensation for 2013 increased by approximately \$8,000 due to currency exchange rates and contractual cost of living adjustments. In 2011, Mr. Barth received a discretionary bonus from the Compensation Committee of the Board of Directors of Acorn Energy, Inc. of \$90,000. He also received a cash bonus of \$13,305 for 2012, in accordance with the terms of his contract whereby he is entitled to a bonus payment equal to 1.50% of DSIT's net income before income taxes. For 2014, Mr. Barth agreed to a \$10,000 reduction in the portion of his salary payable by Acorn and a voluntary reduction of NIS 12,000 (\$3,457 at December 31, 2013 exchange rates) in the amount payable by DSIT effective January 1, 2014 and did not receive a bonus from either company for 2013.

Benny Sela. On September 2, 2012, the board of directors of DSIT Solutions Ltd. granted Mr. Sela a 10% increase in annual compensation effective September 1, 2012. Mr. Sela's base compensation for 2012 was \$205,549. Mr. Sela's base compensation for 2013 increased by approximately \$30,000 due to currency exchange rates and contractual cost of living adjustments. He is also due to receive a cash bonus of \$78,838 for 2013 in accordance with the terms of his contract whereby he is entitled to a bonus payment equal to 1.75% of DSIT's gross profit. Effective January 1, 2014, Mr. Sela agreed to take a voluntary reduction of NIS 85,484 (\$24,628 at December 31, 2013 exchange rates).

Joseph E. Musanti. Effective January 1, 2013, Mr. Musanti and GridSense entered into an Employment Agreement pursuant to which Mr. Musanti initially served as GridSense's CFO and COO and later became its President and CEO effective May 10, 2013. Pursuant to a letter agreement between GridSense and USSI, Mr. Musanti also serves as USSI's CFO and USSI reimburses GridSense for an agreed upon portion of Mr. Musanti's employee costs. A similar informal arrangement is in place between GridSense and OmniMetrix pursuant to which Mr. Musanti serves as OmniMetrix's President and CEO. Mr. Musanti was named the COO of the Company effective January 7, 2014 and received a \$25,000 annual raise in his base compensation in connection with such election, which amount (together with associated employee costs) is funded entirely by Acorn. Mr. Musanti's employment is on an "at-will" basis and the Employment Agreement has no fixed term. It provides that GridSense's Board of Directors will set Mr. Musanti's base salary (which was \$250,000 for 2013, increased to \$275,000 for 2014) and contains an opportunity for him to earn an annual bonus which would be payable in arrears based on a targeted increase in gross profits for the combined (i.e., US and Australian affiliate) GridSense business over prior year (or a base year) results (which formula is subject to change by the Board in the future). He is also eligible under a letter agreement with USSI to a bonus based on the percentage, if any, by which USSI exceeds its projected gross revenues and operating income targets as set in its annual budget. He did not receive a bonus from GridSense or USSI for 2013.

Richard Rimer. Mr. Rimer served as the Vice Chairman of our Board of Directors until July 31, 2013 and from August 1 until December 31, 2013, he served as our Executive Vice President. He also served as a member of our Board of Directors and as Chairman of the Boards of our GridSense and OmniMetrix subsidiaries until November 11, 2013. Mr. Rimer and the Company were parties to a Consulting Agreement dated December 12, 2011 that was extended through July 31, 2013 and initially provided for annualized compensation of \$250,000 (or \$20,833 per month). Effective August 1, 2013, Mr. Rimer and the Company entered into a new Consulting Agreement that acknowledged that his 2013 compensation under the prior and such new agreement would be \$30,720 per month. The term of the new Consulting Agreement was scheduled to end on March 31, 2014, but by an amendment effective November 11, 2013, Mr. Rimer and the Company agreed to end the consultancy as of December 31, 2013. The amendment provided for an early termination payment of \$73,728, which we made to Mr. Rimer on December 31, 2013 (which amount represents a 20% reduction in the amounts he would have received under the Consulting Agreement for the remaining term prior to the amendment). Mr. Rimer also agreed to reduce his compensation for the remaining term by 20% to \$24,576 per month effective November 1, 2013.

Stockholder input on executive compensation. Stockholders can provide the Company with their views on executive compensation matters at each year's annual meeting through the stockholder advisory vote on executive compensation and during the interval between stockholder advisory votes. The Company welcomes stockholder input on our executive compensation matters, and stockholders are able to reach out directly to our independent directors by emailing to [cclouser@acornenergy.com](mailto:cclouser@acornenergy.com) to express their views on executive compensation matters.

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## Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
<b>John A. Moore</b>						
President and CEO	2013	402,864	—	—	12,000	(1) 414,864
	2012	375,000	—	213,189	(2) 27,000	(3) 615,189
	2011	325,962	596,890	124,232	(4) 12,000	(1) 1,059,084
<b>Michael Barth</b>						
CFO and CFO of DSIT	2013	191,195	—	—	30,114	(5) 221,309
	2012	183,192	13,305	88,308	(6) 26,756	(5) 311,561
	2011	188,529	90,000	—	33,637	(5) 312,166
<b>Richard Rimer</b>						
Former Vice-Chairman and Executive Vice-President	2013	430,080	(7) —	—	15,000	(8) 445,080
<b>Benny Sela</b>						
CEO and President of DSIT	2013	235,685	78,838	—	39,288	(5) 353,811
	2012	205,549	90,125	—	35,326	(5) 331,000
	2011	210,509	67,168	—	39,863	(5) 317,540
<b>Joseph Musanti</b>						
COO of Acorn, CEO and President of GridSense and OmniMetrix, CFO of USSI	2013	250,000	10,000	(9) 49,315	(10) 3,000	(11) 312,315

(1) Consists of automobile expense allowance.

Represents the grant date fair value calculated in accordance with applicable accounting principles with respect to 50,000 stock options granted on December 13, 2012 with an exercise price of \$7.57. The fair value of the options

(2) was determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 1.72% (ii) an expected term of 9.5 years (iii) an assumed volatility of 57% and (iv) an annual rate of quarterly dividends of 1.85%.

(3) Consists of automobile expense allowance (\$12,000) and the reimbursement of legal expenses (\$15,000) associated with the costs of Mr. Moore's new employment agreement.

Represents the grant date fair value calculated in accordance with applicable accounting principles with respect to 66,666 stock options granted on March 14, 2011 with an exercise price of \$3.70. The fair value of the options was

(4) determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 2.0% (ii) an expected term of 4.5 years (iii) an assumed volatility of 61% and (iv) no dividends.

(5) Consists of automobile fringe benefits and the gross up value of income taxes on such benefits.

(6)

Represents the grant date fair value calculated in accordance with applicable accounting principles with respect to 25,000 stock options granted on December 13, 2012 with an exercise price of \$7.57. The fair value of the options was determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 1.11% (ii) an expected term of 6.7 years (iii) an assumed volatility of 57% and (iv) an annual rate of quarterly dividends of 1.85%.

(7) Includes \$73,728 termination payment in connection with ending his consulting agreement effective December 31, 2013.

(8) Includes \$15,000 for the reimbursement of legal expenses associated with the costs of Mr. Rimer's consulting agreement.

(9) Represents a signing bonus.

Represents the grant date fair value calculated in accordance with applicable accounting principles with respect to 50,000 USSI stock options granted on January 1, 2013 with an exercise price of \$1.72. The fair value of the options was determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 0.98% (ii) an expected term of 6.1 years (iii) an assumed volatility of 63% and (iv) no quarterly dividends.

(10) Represents rental car reimbursement.

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## Grants of Plan Based Awards

Name	Grant Date	Number of Shares of Common Stock Underlying Options	Exercise Price of Options Awards (Per Share)	Grant Date Fair Value of Options Awards
John A. Moore	—	—	—	—
Michael Barth	—	—	—	—
Richard Rimer	—	—	—	—
Benny Sela	—	—	—	—
Joseph Musanti	January 1, 2013	50,000 (1)	—	\$49,315

(1) The options are options in USSI which vest 25% on the first anniversary of the vesting commencement date (January 1, 2014) and thereafter in equal quarterly installments of 6.25% on each March 31, June 30, September 30, and December 31 thereafter until vested in full.

## Employment Arrangements

The employment arrangements of each named executive officer and certain other officers are described below. From time to time, the Company has made discretionary awards of management options as reflected in the table above.

John A. Moore became our President and Chief Executive Officer in March 2006. In March, 2008, we entered into a three-year Employment Agreement with Mr. Moore (the "Prior Agreement"), providing for an initial base salary of \$325,000 per annum, retroactive to January 1, 2008, increasing to \$350,000 per annum on the first anniversary of the Prior Agreement and increasing to \$375,000 per annum on the second anniversary. Effective November 1, 2010, Mr. Moore voluntarily reduced his annual salary to \$300,000 per annum. In March 2011, we entered into a one-year extension of the Prior Agreement with Mr. Moore at the reduced salary of \$300,000 per annum. In November 2011, we entered into a second amendment to the Prior Agreement restoring his salary to \$375,000 per annum effective November 1, 2011. In March 2012, we further amended the Prior Agreement such that Mr. Moore's employment would continue on a month-to-month basis unless otherwise terminated according to the provisions of the Agreement. Mr. Moore was eligible to receive an annual cash bonus of up to \$200,000 under the Prior Agreement, based upon the attainment of agreed upon personal and company performance goals and milestones for the preceding fiscal year, as determined by the Compensation Committee. Under the Prior Agreement, Mr. Moore was also entitled to (i) the employee benefits generally made available to the registrant's executive officers, (ii) short-term and long-term disability insurance for the benefit of Mr. Moore, and (iii) a monthly automobile expense allowance of \$1,000.

Under the terms of the 2013 Agreement, Mr. Moore's initial base salary was set at \$425,000 per annum, and had been scheduled to increase to \$450,000 per annum on January 1, 2014, \$475,000 per annum on January 1, 2015, \$500,000 on January 1, 2016 and remaining at that amount through the end of the term. Effective for the pay period commencing October 16, 2013, Mr. Moore and the Company amended the 2013 Agreement to provide for a fixed

annual salary of \$318,750 (which amount represents a 25% reduction from his original 2013 base salary). The 2013 Agreement provides that commencing on January 1, 2014, and for each subsequent anniversary date of the term through the fourth anniversary (January 1, 2017), stock option awards having a value of \$250,000, based on a Black-Scholes model, will be awarded to Mr. Moore. The 2013 Agreement also provides that in addition to annual stock option awards, the registrant and Mr. Moore will discuss the terms of a mutually agreeable grant by the registrant to Mr. Moore of “Challenge Options” or “Challenge Shares” under the Corporation's 2006 Stock Incentive Plan based upon the future increase in the market capitalization of the Corporation's Common Stock. Any such grant would be reflected in a separate contract executed between Mr. Moore and us, but it is no longer anticipated that such an award is likely to be made.



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Under the 2013 Agreement, Mr. Moore is also entitled to (i) the employee benefits generally made available to the registrant's executive officers, (ii) short-term and long-term disability insurance for the benefit of Mr. Moore, and (iii) a monthly automobile expense allowance of \$1,000. In addition, we are required to contribute for each calendar year an amount equal to three percent (3%) of Mr. Moore's aggregate base salary to his 401(k) Plan, subject to applicable statutory limits. The Company reimbursed Mr. Moore \$15,000 for his legal expenses in connection with executing the 2013 Agreement.

Mr. Moore received a discretionary bonus of \$160,000 for 2009 that was paid in 2010. In March 2011, in lieu of a bonus for 2010, Mr. Moore was awarded 66,666 stock options exercisable until March 14, 2016 at an exercise price of \$3.70 per share, exercisable immediately as to one-fourth of the options, with the remainder vesting in equal installments on June 30, September 30 and December 31, 2011. We also made a payment to Mr. Moore of a discretionary cash bonus of \$421,890 as determined by the independent members of our Board of Directors. This bonus was based on Mr. Moore's efforts in leading the successful sale of CoaLogix, his voluntary reduction of his salary during the prior twelve month period and in lieu of an award of additional options which the Board of Directors had intended to make to Mr. Moore in connection with the one-year extension of his employment agreement in early 2011. The Compensation Committee had agreed with Mr. Moore following its appointment in November 2011 that his annual bonus would be based on three factors: (1) success in acquisitions/dispositions (up to 30%), (2) performance of our stock versus peer companies as determined by the Compensation Committee (up to 30%), and (3) revenue and EBTIDA performance of the subsidiaries versus budget and parent company expenses versus budget (up to 40%).

Mr. Moore was also advised that, absent some major change prior to the end of 2011, the Committee would recognize that he had fully earned the 30% related to success in acquisitions/dispositions because of the extraordinary return from the sale of CoaLogix. Mr. Moore agreed to that process. Following the finalization of the Corporation's 2011 financial results, the Committee reviewed the performance of Acorn's stock versus peer group comprised of COMV (Comverge), ELON (Echeleon), ENOC (EnerNOC), ITRI (Itron), SFE (Safeguard Scientifics), TINY (Harris & Harris) and USU (USEC Inc.) and the revenue and EBTIDA performance of the subsidiaries versus budget and parent company expenses versus budget. The bonus determined as appropriate by the Committee was \$150,000. Mr. Moore also received an additional cash bonus of \$25,000 in September, 2012 representing the remainder of a 2011 bonus award based on Acorn receiving the balance of our portion of the escrowed sales proceeds from the sale of CoaLogix, which were in fact paid in full to us in September 2012. Under the 2013 Agreement, Mr. Moore is eligible to receive an annual cash bonus of up to 100% of his aggregate base salary for each fiscal year, based upon the attainment of agreed upon personal and company performance goals and milestones for the preceding fiscal year, as determined by the Compensation Committee. In addition, Mr. Moore may be awarded an additional bonus payable in cash or shares of the registrant's common stock (at the option of the Company) after each fiscal year, subject to the sole discretion of the Compensation Committee, based upon Mr. Moore's performance during such year and/or other criteria as the Compensation Committee may deem appropriate. Mr. Moore did not receive a bonus from Acorn for 2012 or 2013.

Michael Barth has served as Chief Financial Officer of the Company and Chief Financial Officer of DSIT beginning December 1, 2005. In August 2009, the Board approved new employment terms for Mr. Barth. According to the new employment terms, Mr. Barth was entitled to a salary of \$175,000 per annum effective August 1, 2009. One half of Mr. Barth's salary is fixed in NIS at the November 1, 2007 exchange rate and linked to the Israel CPI and adjusted semi-annually. Mr. Barth's current annual salary following such linkage adjustments is approximately \$196,000 (prior to reductions - see below). The cost of Mr. Barth's total compensation (excluding bonuses) is shared by an arrangement between Acorn (75%) and DSIT (25%). Effective January 1, 2014, Mr. Barth agreed to a \$10,000 reduction in his salary of the annual portion payable by Acorn and a monthly reduction of NIS 1,000 in the amount payable by DSIT effective January 1, 2014. Each of Acorn and DSIT separately determine any bonus (if any) to be paid to Mr. Barth. In April 2012, the Compensation Committee of the Board of Directors awarded Mr. Barth a discretionary bonus for 2011 of \$90,000. In September 2012, DSIT's board of directors made Mr. Barth eligible to receive an annual bonus equal to 1.5% of DSIT's annual consolidated net income before tax, to be calculated and paid

as soon as practicable following the end of DSIT's fiscal year beginning with 2012. Such bonus will be paid only if Mr. Barth is employed by DSIT on the last day of the fiscal year to which such payment relates. For 2012, such bonus was calculated to be \$13,305. Mr. Barth did not receive any bonus from Acorn for 2012. For 2013, Mr. Barth did not receive any bonus from Acorn or DSIT.

Richard Rimer was elected Executive Vice President ("EVP") of Acorn on July 25, 2013 in connection with his execution of a new Consulting Agreement with Acorn effective as of August 1, 2013 (the "Rimer CA"). At that time, he ceased to be Vice Chairman of our Board. Under the Rimer CA, Mr. Rimer received a payment of \$215,040 for services rendered by him during 2013 prior to the effective date of that agreement. He was also reimbursed for business travel and other expenses he incurred on the Company's behalf during that time. The Rimer CA provided that Mr. Rimer would serve as EVP for an annualized fee of \$368,640, payable in equal monthly installments of \$30,720, and would continue to receive business-related expense reimbursements in accordance with company policies. The term of the Rimer CA was to expire on March 31, 2014 unless earlier terminated. On November 11, 2013, Mr. Rimer, agreed to reduce his consulting fees by 20% from \$30,720 per month to \$24,576, effective retroactively as of November 1, 2013, and to end the Rimer CA effective December 31, 2013 in exchange for a lump sum payment of \$73,728, which represents 80% of the amounts that otherwise would be payable upon termination of the agreement.

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Mr. Rimer was eligible to earn a bonus up to \$272,000 for the accomplishment of agreed-upon goals by December 31, 2013 as set by the Compensation Committee. Mr. Rimer did not receive any bonus from Acorn for 2013.

Heather K. Mallard became Vice President, General Counsel and Secretary of the Company commencing February 1, 2012. Under her employment agreement, Ms. Mallard's initial base salary is \$225,000 per annum. The agreement has no fixed term, and the employment is on an "at-will" basis. She is eligible to receive an annual bonus of up to 30% of her base salary, based upon the attainment of personal, corporate and discretionary goals as established by the Board in consultation with Mr. Moore and Ms. Mallard. We reimbursed Ms. Mallard approximately \$9,500 in 2012 for expenses incurred in connection with her relocation to Wilmington, Delaware. Ms. Mallard did not receive a bonus from Acorn for 2012 or 2013.

Benny Sela has served as President and Chief Executive Officer of DSIT since July 1, 2007. Mr. Sela's employment agreement provided for a base salary which is denominated in Israeli Consumer Price Index ("CPI") linked NIS which at December 31, 2011 was equivalent to approximately \$199,000 per annum. In September 2012, the board of directors of DSIT, awarded Mr. Sela a 10% increase in annual compensation effective September 1, 2012. After giving effect to such increase, Mr. Sela's base salary, which is denominated in NIS and linked to the Israeli CPI, is currently equivalent to approximately \$246,000 per annum (prior to reduction - see below). In addition to his base salary, Mr. Sela is also entitled to receive a bonus payment equal to 1.75% of DSIT's gross profit. Mr. Sela's bonus under this arrangement was \$67,168, \$90,125 and \$78,838 for the year's ended December 31, 2011, 2012 and 2013, respectively. In June 2013, DSIT and Mr. Sela agreed that future bonus payments would be further conditioned upon DSIT achieving certain EBITDA growth targets. Effective January 1, 2014, Mr. Sela voluntarily reduced his annual base salary by approximately \$24,600 (10%).

Jim Andersen has served as CEO and President of USSI since he founded USSI in October 2007. Mr. Andersen's employment terms are based on employment agreement signed effective November 1, 2007 between Mr. Andersen and USSI. The agreement has no fixed term and the employment is on an "at-will" basis. The agreement does not state any salary or other compensation terms. For 2011, Mr. Andersen's salary was approximately \$149,000. Mr. Andersen's salary for 2012 was \$170,000 and is unchanged for 2013. Mr. Andersen did not receive a bonus for 2011, 2012 or 2013.

Joseph Musanti has served as CEO and President of GridSense since May 10, 2013 and as CEO and President of OmniMetrix since July 25, 2013. From January 1, 2013 until May 10, 2013, he served as the Chief Operating Officer and Chief Financial Officer of GridSense. He has also served as the Chief Financial Officer of USSI since January 1, 2013. Effective January 7, 2014, he was elected Acorn's Chief Operating Officer. Mr. Musanti is party to an At-Will Employment, Confidential Information, Non-Solicitation and Invention Assignment Agreement effective as of January 1, 2013 with GridSense pursuant to which he initially was paid an annual salary of \$250,000 and received a one-time \$10,000 signing bonus that was paid in January 2013. For 2014, Mr. Musanti received a \$25,000 annual raise in his base compensation in connection with his election as the Company's COO, which amount (together with associated employee costs) is funded entirely by Acorn, USSI and OmniMetrix are also each obligated to reimburse GridSense on a monthly basis a variable percentage of the total costs of employing Mr. Musanti based on the portion of his time devoted to their respective businesses. Pursuant to side letters with GridSense and USSI, Mr. Musanti may earn an annual bonus. He is not entitled to a bonus from OmniMetrix. With respect to GridSense, he is eligible for a bonus equal to 2% of the amount, if any, by which the actual gross profit of GridSense Inc. and its Australian affiliates (collectively, the "GridSense Business"), as determined for financial reporting purposes, for the 2013 calendar year exceeds 105% of the GridSense Business's gross profit earned in 2011 (the "Base Year"). Unless otherwise determined by the Board, the financial measurement for each future period will equal 2% of the amount, if any, by which the GridSense Business's actual gross profit, as determined for financial reporting purposes, exceeds 105% of the greater of GridSense Business's gross profit earned in the year immediately prior to the applicable period or the Base Year. Mr. Musanti was not paid a bonus by GridSense for 2013. His bonus eligibility at USSI is based on the percentage, if

any, by which USSI exceeds its projected gross revenues and operating income targets as set in its annual budget. Mr. Musanti was not paid a bonus by USSI for 2013.

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## Outstanding Equity Awards at 2013 Fiscal Year End

The following tables set forth all outstanding equity awards made to each of the Named Executive Officers that are outstanding at December 31, 2013.

## OPTIONS TO PURCHASE ACORN ENERGY, INC. STOCK

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
John A. Moore	200,000	—	5.11	March 4, 2018
	75,000	—	2.51	February 20, 2014
	66,666	—	3.70	March 14, 2016
	10,000	40,000 (1)	7.57	December 13, 2022
Michael Barth	30,000	—	3.90	September 19, 2014
	35,000	—	2.51	February 20, 2014
	10,000	—	4.09	December 28, 2017
	8,333	16,667 (2)	7.57	December 13, 2019
Richard Rimer	10,000	—	4.20	December 5, 2014
	10,000	—	2.24	November 3, 2015
	10,000	—	4.75	August 4, 2016
	10,000	—	5.00	June 10, 2017
	10,000	—	5.37	October 17, 2018
	10,000	—	8.83	September 11, 2019
	11,666	—	7.57	December 13, 2019
Benny Sela	10,000	—	4.09	December 28, 2017
Joseph Musanti	10,000	—	2.24	November 3, 2015
	10,000	—	4.75	August 4, 2016
	10,000	—	5.00	June 10, 2017
	10,000	—	5.37	October 17, 2018
	10,000	—	8.83	September 11, 2019

(1) The options vest 2,500 each on March 13, June 13, September 13 and December 13 of each year 2014 through 2017.

(2) The options vest 8,333 and 8,334 on December 13, 2014 and 2015, respectively.

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## OPTIONS TO PURCHASE DSIT SOLUTIONS LTD. STOCK

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
John A. Moore	—	—	—	—
Michael Barth	—	16,734	1.05	August 10, 2018
Richard Rimer	—	—	—	—
Benny Sela	47,600 19,336	— —	1.26 2.70	August 10, 2018 August 10, 2018
Joseph Musanti	—	—	—	—

All options to purchase DSIT Solutions Ltd. common stock vest only upon an exit transaction by Acorn or upon reaching 25 years of service at DSIT.

## OPTIONS TO PURCHASE US SEISMIC SYSTEMS, INC. STOCK

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
John A. Moore	—	—	—	—
Michael Barth	—	—	—	—
Richard Rimer	—	—	—	—
Benny Sela	—	—	—	—
Joseph Musanti	—	50,000	1.72	January 1, 2020

The options in USSSI vest 25% on the first anniversary of the vesting commencement date (January 1, 2014) and thereafter in equal quarterly installments of 6.25% on each March 31, June 30, September 30, and December 31 thereafter until vested in full.

## Option and Warrant Exercises

None of Messrs. Moore, Barth, Sela or Musanti exercised any options held by them in Acorn, DSIT or USSSI during 2013. Mr. Rimer exercised on a cashless basis a total of 75,000 options. On October 3, 2013, he surrendered 15,830 option shares having a fair market value of \$5.18 per share to satisfy the \$3.28 exercise price under non-plan options to purchase 25,000 shares expiring on such date and was issued a net of 9,170 shares of Acorn common stock as of

October 4, 2013. On November 30, 2013, he surrendered 43,849 option shares having a fair market value of \$3.82 per share to satisfy the \$3.35 exercise price under non-plan options to purchase 50,000 shares expiring on such date and was issued a net of 6,151 shares of Acorn common stock as of December 1, 2013.

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## Non-qualified Deferred Compensation

The following table provides information on the executive non-qualified deferred compensation activity for each of our named executive officers for the year ended December 31, 2013.

Named Executive Officer	Executive Contributions in Last Fiscal Year (\$)	Registrant Contributions in Last Fiscal Year (\$)	Aggregate Earnings (Losses) in Last Fiscal Year (\$)	Aggregate Withdrawals/Distributions (\$)	Aggregate Balance at Last Fiscal Year End (\$)
John A. Moore	\$—	\$—	\$—	\$—	\$—
Michael Barth	—	39,952	(1) 25,617	(2) —	380,070 (3)
Richard Rimer	—	—	—	—	—
Benny Sela	—	39,289	(1) 64,574	(2) —	1,002,678 (3)
Joseph Musanti	—	—	—	—	—

(1) Represents a contribution to a manager's insurance policy. Such contributions are made on substantially the same basis as those made on behalf of other Israeli executives.

(2) Represents the dollar value by which the aggregate balance of the manager's insurance policy as of December 31, 2013 is less than the sum of (i) the balance of the manager's insurance policy as of December 31, 2012, and (ii) the employer and employee contributions to the manager's insurance policy during 2013.

(3) Represents the aggregate balance of the manager's insurance policy as of December 31, 2013. Such amounts may be withdrawn only at retirement, death or upon termination under certain circumstances.

## Estimated Payments and Benefits Upon Termination or Change in Control

The amount of compensation and benefits payable to each named executive officer and certain other officers in various termination situations is described in the tables below.

## John A. Moore

Under the terms of the 2013 Agreement with Mr. Moore, our President and Chief Executive Officer, upon termination by the Company for cause (as defined in the agreement) and upon termination by Mr. Moore without good reason (as defined in the agreement), all compensation due to Mr. Moore under his agreement would cease, except that Mr. Moore would receive all accrued but unpaid base salary up to the date of termination, and reimbursement of all previously unreimbursed expenses. All vested and unexercised options granted by the Company as of the date of termination would be exercisable in accordance with the terms of the applicable stock option plan and agreements, provided that Mr. Moore would have only three months to exercise such previously vested options. All options that had not vested as of the date of termination would expire.

In the event that within three months prior to or one year following a change of control (as defined in the 2013 Agreement), either (i) the Company terminates the employment of Mr. Moore, other than for cause, or (ii) Mr. Moore terminates for good reason (as defined in the 2013 Agreement), Mr. Moore would receive the following additional amounts (except to the extent that any payment would constitute an "excess parachute payment" under the IRS Code): (i) an amount equal to (A) \$850,000 (which represents two times his 2013 original base salary prior to his agreeing to



a voluntary reduction of such amount) and (B) two times the amount of his target bonus for the year in which the termination occurred, which target equals 100% of his then-current annual salary; (ii) reimbursement of all previously unreimbursed expenses; (iii) the full vesting of any and all stock options granted to Mr. Moore by the Company prior to such termination, and extended exercisability thereof until their respective expiration dates; and (iv) the continuation of all medical and dental benefits at the Company's sole expense for a period of one year after termination.

In the event that (i) the Company terminates the employment of Mr. Moore (including a non-renewal of his agreement at the end of the five-year term provided therein, as extended, but not including non-renewal following any subsequent renewal of the term), other than upon a change of control, death, disability or for cause, or (ii) Mr. Moore terminates for good reason, other than in connection with a change of control, Mr. Moore would receive the following additional amounts (except to the extent that any payment would constitute an "excess parachute payment" under the IRS Code): (i) an amount equal to (A) \$425,000

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(which represents the amount of his 2013 original base salary prior to his agreeing to a voluntary reduction of such amount) and (B) his most recent annual bonus target, which target equals 100% of his then-current annual salary; (ii) reimbursement of all previously unreimbursed expenses; (iii) accelerated vesting of all unvested options that otherwise would vest within 24 months of the date of termination, with such accelerated options and all other vested and unexercised options granted by the Company as of the date of termination to be exercisable for a period of one year from the date of termination of employment in accordance with the terms of the applicable stock option plan and agreements; and (iv) the continuation of all medical and dental benefits at the Company's sole expense for a period of one year after termination.

In the event of any change of control, all stock options granted to Mr. Moore prior to such change of control would vest and remain exercisable until their respective expiration dates.

The term of the 2013 Agreement ends immediately upon Mr. Moore's death, or upon termination by the Company for cause or disability (as defined in the agreement) or by Mr. Moore for good reason. Upon termination due to Mr. Moore's death, all compensation due Mr. Moore under his agreement would cease.

The following table describes the potential payments and benefits upon termination of employment for Mr. Moore, as if his employment terminated as of December 31, 2013, the last day of our last fiscal year assuming that there is no earned, but unpaid base salary at the time of termination.

Payments and benefits	Circumstances of Termination			
	Voluntary resignation	Termination not for cause	Change of control	Death or disability
Compensation:				
Base salary	\$—	\$425,000	(1) \$850,000	(4) \$—
Bonus	—	318,750	(2) 637,500	(2) —
Benefits and perquisites:				
Perquisites and other personal benefits	—	9,192	(3) 9,192	(3) —
Total	\$—	\$752,942	\$1,496,692	\$—

(1) The \$425,000 represents 12 months of Mr. Moore's base salary as at December 31, 2013 prior to the voluntary reduction implemented as of October 16, 2013.

(2) Under the 2013 Agreement, Mr. Moore would be eligible to be paid either his target annual bonus or twice such amount,

which amount is based on his salary as reduced.

(3) The \$9,156 represents 12 months of health insurance payments.

(4) The \$850,000 represents 24 months of Mr. Moore's base salary prior to the voluntary reduction implemented as of October 16, 2013.

#### Michael Barth

Under the terms of the employment arrangement with Mr. Barth, our Chief Financial Officer, we are obligated to make certain payments to fund in part our severance obligations to him. We would be required to pay Mr. Barth an amount equal to 120% of his last month's salary multiplied by the number of years (including partial years) that Mr. Barth worked for us. This severance obligation, which is customary for executives of Israeli companies, would be reduced by the amount contributed by us to certain Israeli pension and severance funds pursuant to Mr. Barth's employment arrangement. As of December 31, 2013, the unfunded portion of these payments was \$96,318. In

addition, the arrangement with Mr. Barth provides for an additional payment equal to six times his last month's total compensation, payable at the end of his employment with us.

The following table describes the potential payments and benefits upon termination of employment for Mr. Barth, as if his employment terminated as of December 31, 2013, the last day of our last fiscal year assuming that there is no earned, but unpaid base salary at the time of termination.

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Payments and benefits	Circumstances of Termination					
	Voluntary resignation		Termination not for cause		Change of control	Death or disability
Compensation:						
Base salary	\$32,642	(1)	\$97,926	(2)	\$—	\$97,926 (2)
Benefits and perquisites:						
Perquisites and other personal benefits	174,885	(3)	289,324	(4)	—	289,324 (4)
Total	\$207,527		\$387,250		\$—	\$387,250

- (1) The \$32,642 represents a lump sum payment of two months' salary due to Mr. Barth prior to taking into account voluntary salary reductions (see Employment Arrangements).
- (2) The \$97,926 represents a lump sum payment of 6 months' salary due to Mr. Barth upon termination without cause or by death or disability prior to taking into account voluntary salary reductions (see Employment Arrangements). Includes \$180,293 of severance pay based on the amounts funded in for Mr. Barth's severance in accordance with Israeli labor law. Also includes accumulated, but unpaid vacation days (\$33,531), car benefits (\$2,000) and payments for pension and education funds (\$7,061) less \$48,000 of benefits waived in support of DSIT's operations in 2007.
- (3) Includes \$276,611 of severance pay based in accordance with Israeli labor law calculated based on his last month's salary multiplied by the number of years (including partial years) that Mr. Barth worked for us multiplied by 120% in accordance with his contract. Of the \$276,611 due Mr. Barth, we have funded \$180,293 in an insurance fund. Also includes accumulated, but unpaid vacation days (\$33,531), car benefits (\$6,000) and payments for pension and education funds (\$21,182) less \$48,000 of benefits waived in support of DSIT's operations in 2007.

## Richard Rimer

Mr. Rimer received an early termination payment on December 31, 2013 under the Rimer CA of \$73,728 in connection with the termination effective as of such date.

## Benny Sela

Under the terms of the employment agreement with Mr. Sela, the President and Chief Executive Officer of our DSIT subsidiary, we are obligated to make certain payments to fund in part our severance obligations to him. We are required to pay Mr. Sela an amount equal to 150% of his last month's salary multiplied by the number of years (including partial years) that Mr. Sela has worked for us. This severance obligation would be reduced by the amount contributed by us to certain Israeli pension and severance funds pursuant to Mr. Sela's employment agreement. As of December 31, 2013, the unfunded portion of these payments was \$311,334. Mr. Sela would also receive a lump sum payment equal to six months base salary in the event of a voluntary resignation, and a lump sum payment equal to nine months' salary in the event of termination not for cause.

The following table describes the potential payments and benefits upon termination of employment for Mr. Sela, as if his employment terminated as of December 31, 2012, the last day of our last fiscal year assuming that there is no earned, but unpaid base salary at the time of termination.

	Circumstances of Termination					
Payments and benefits	Voluntary resignation		Termination not for cause		Change of control	Death or disability

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	Voluntary resignation		Termination not for cause		Change of control		Death or disability
Compensation:							
Base salary	\$123,138	(1)	\$184,707	(2)	\$—		\$184,707 (2)
Benefits and perquisites:							
Perquisites and other personal benefits	778,125	(3)	793,408	(4)	—		793,408 (4)
Total	\$901,263		\$978,115		\$—		\$978,115

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- (1) The \$123,138 represents a lump sum payment of six months' salary due to Mr. Sela prior to taking into account voluntary salary reductions (see Employment Arrangements).
- (2) The \$184,707 represents a lump sum payment of nine months' salary due to Mr. Sela prior to taking into account voluntary salary reductions (see Employment Arrangements).  
Includes \$767,522 of severance pay based in accordance with Israeli labor law calculated based on his last month's salary multiplied by the number of years (including partial years) that Mr. Sela worked for us multiplied by 150%
- (3) in accordance with his contract. Of the \$767,522 due Mr. Sela, we have funded \$456,188 in an insurance fund. Also includes accumulated, but unpaid vacation days (\$58,036), car benefits (\$6,000) and payments for pension and education funds (\$24,567) less \$78,000 of benefits waived in support of DSIT's operations in 2007.  
Includes \$767,522 of severance pay based in accordance with Israeli labor law calculated based on his last month's salary multiplied by the number of years (including partial years) that Mr. Sela worked for us multiplied by 150%
- (4) in accordance with his contract. Of the \$767,522 due Mr. Sela, we have funded \$456,188 in an insurance fund. Also includes accumulated, but unpaid vacation days (\$58,036), car benefits (\$9,000) and payments for pension and education funds (\$36,850) less \$78,000 of benefits waived in support of DSIT's operations in 2007.

Jim Andersen

Under the terms of the employment agreement with Mr. Andersen, there are no amounts due under any termination scenario other than unpaid vacation in the amount of \$13,077.

Joseph Musanti

Under the terms of the employment agreement with Mr. Musanti, our COO and the President and Chief Executive Officer of our GridSense and OmniMetrix subsidiaries and the CFO of our USSI subsidiary, we are obligated to make certain payments to him upon the termination of his employment.

The following table describes the potential payments and benefits upon termination of employment for Mr. Musanti, as if his employment terminated as of December 31, 2013, the last day of our last fiscal year assuming that there is no earned, but unpaid base salary at the time of termination.

Payments and benefits	Circumstances of Termination			
	Voluntary resignation	Termination not for cause	Change of control	Death or disability
Compensation:				
Base salary	\$—	\$ 125,000	(1) \$—	\$—
Benefits and perquisites:				
Perquisites and other personal benefits	17,317	(2) 17,317	(2) 17,317	(2) 17,317
Total	\$ 17,317	\$ 142,317	\$ 17,317	\$ 17,317

(1) The \$125,000 represents a lump sum payment of six months' salary due to Mr. Musanti.

(2) The \$17,317 represents unpaid vacation.

Heather K. Mallard

Under the terms of the employment agreement with Ms. Mallard, our Vice President, General Counsel and Secretary, we are obligated to make certain payments to her upon the termination of her employment.

The following table describes the potential payments and benefits upon termination of employment for Ms. Mallard, as if her employment terminated as of December 31, 2013, the last day of our last fiscal year assuming that there is no earned, but unpaid base salary at the time of termination.

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Payments and benefits	Circumstances of Termination			
	Voluntary resignation	Termination not for cause	Change of control	Death or disability
Compensation:				
Base salary	\$—	\$112,500	(1) \$—	\$—
Benefits and perquisites:				
Perquisites and other personal benefits	—	11,194	(2) —	—
Total	\$—	\$123,694	\$—	\$—

(1) The \$112,500 represents a payment of six months' salary due to Ms. Mallard.

(2) The \$12,168 represents six months of health and dental insurance payments.

## Compensation of Directors

In October 2007, we agreed that each of our non-employee directors would be paid an annual cash retainer of \$40,000 payable quarterly in advance ("Retainer"), as well as meeting fees for Board and Committee meetings of \$1,000 per meeting. Effective December 13, 2012, the \$1,000 per meeting fee was canceled. Our Directors also voluntarily agreed to reduce their annual Retainer to \$30,000 effective January 1, 2014. In 2009, we agreed that the Chairman of the Audit Committee would receive an additional annual cash retainer of \$10,000. In 2012, we agreed that members of the Audit Committee would receive an additional annual cash retainer of \$2,000, the Chairman of the Compensation Committee would receive an additional annual cash retainer of \$5,000 and the Chairman of the Nominating Committee would receive an additional annual cash retainer of \$3,000.

In connection with the election in November, 2012 of a non-executive Board Chairman, in addition to fees and options awarded to Directors, the Board determined that any non-executive Chairman would receive for such service: (1) an annual grant of options to purchase the Corporation's shares (vesting in four installments quarterly in advance) having a value (determined as of the date of his or her election to such position and any anniversary thereof so long as he/she continues in such role in accordance with the methodology then used by the Corporation to determine stock compensation for purposes of its audited financial statements) of \$60,000, and for the first year with an exercise price equal to the closing price of the Corporation's shares on the NASDAQ Global Market on the date immediately prior to election and having a term of seven years, as documented by a non-qualified option award agreement under the Corporation's 2006 Stock Incentive Plan, as amended; (2) a cash fee of \$60,000, (3) payments to an administrative consultant for his/her use in the amount of \$15,000 plus (4) \$10,000 for each subsidiary board on which he/she serves at the designation of the Corporation (which amount may be charged back to such subsidiary as determined by the Board).

In December 2012, we agreed that each Director may, in his or her discretion, elect by written notice delivered on or before the first day of each calendar year (the "Election") whether to receive, in lieu of some or all of his or her Retainer and Board fees, options to purchase that number of shares of our Common Stock as shall have a value (determined as of the first day of the calendar year for which such Election is made (the "Election Year") in accordance with the methodology then used by the Corporation to determine stock compensation for purposes of its audited financial statements) as is equal to the applicable Retainer and Board Fees and with an exercise price equal to the fair market value of the Common Stock at the close of business on the trading day preceding the first day of the applicable Election Year. Once made, the Election shall be irrevocable for such Election Year and the options subject to the Election shall vest one-fourth upon the first day of the Election Year and one-fourth as of the first day of each of the second through fourth calendar quarters thereafter during the remainder of the Election Year.



As an employee, Mr. Moore is not entitled to separate compensation in his capacity as a director. Mr. Rimer's consulting terms also provided that he would not receive Board fees for 2013.

Our 2006 Stock Option Plan for Non-Employee Directors, which was adopted in February 2007 and amended and restated in November 2008 and further amended effective September 2012, provides for formula grants to non-employee directors equal to an option to purchase (i) 25,000 shares of our common stock upon a member's initial appointment or election to the Board of Directors and (ii) 10,000 shares of our common stock to each director, other than newly appointed or elected directors, immediately following each annual meeting of stockholders. The initial grant to purchase 25,000 shares of our common stock vests one-third per year for each of the three years following the date of appointment or election and the annual grant to purchase 10,000 shares vests one year from the date of grant. Both options shall be granted at an exercise price equal to their fair market value and shall be exercisable until the earlier of (a) seven years from the date of grant or (b) 18 months from the date that the director ceases to be a director, officer, employee, or consultant. The plan also provides for non-formula grants at the Board's discretion. The

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maximum number of shares of our common stock to be issued under the plan is 600,000. The Plan is administered by the Compensation Committee.

Beginning in 2013, if the value (the "Award Value") of the shares granted (determined as provided above as of the date of grant) to each Director (other than a Director then having been first-elected to the Board) after each annual meeting of stockholders pursuant to the formula grant under the Corporation's 2006 Stock Option Plan for Non-Employee Directors is less than \$60,000, then an additional award of options having a value (determined in the same manner as above) as is equal to the difference between \$60,000 and the Award Value shall be made to each such Director pursuant to the Corporation's 2006 Stock Incentive Plan.

Consulting Agreement with Mr. Morgenstern

Mr. Morgenstern, our Chairman Emeritus, has been retained as a consultant by Acorn since March 2006 primarily to provide oversight of our Israeli activities. On July 25, 2012, we extended the existing consulting agreement with Mr. Morgenstern through September 30, 2014, subject to any earlier termination as therein provided (the "Termination Date"). Mr. Morgenstern is entitled to receive a fee of \$1 per year and an annualized, non-accountable expense allowance of \$75,000. A pro rata portion thereof (i.e., a total of \$6,250) is paid each month, one-half by the Acorn and one-half by DSIT. Acorn has also agreed to cast its votes of DSIT stock for Mr. Morgenstern's election to the DSIT Board of Directors at all elections held between September 11, 2012 and the Termination Date (the "Participation Period"), unless he has resigned therefrom or been removed for cause. Mr. Morgenstern is also invited (but not required) to observe any regular meetings of the Board of Directors of the Corporation (excluding executive sessions and committee meetings) held during the Participation Period and will be paid \$1,000 by us for each such meeting he attends.

Consulting Agreement with Mr. Rimer

Under the Rimer CA, Mr. Rimer served as our EVP from August 1, 2013 through December 31, 2013. During the earlier part of 2013, he served as Vice Chairman of our Board. He received the fees provided by the Rimer CA (including payment in arrears for services in 2013 prior to execution of the Rimer CA), as amended, for 2013 but did not receive separate Board fees.

The following table sets forth information concerning the compensation earned for service on our Board of Directors during the fiscal year ended December 31, 2013 by each individual (other than Mr. Moore and Mr. Rimer who were not separately compensated for their Board service) who served as a director at any time during the fiscal year.

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## DIRECTOR COMPENSATION IN 2013

Name	Fees Earned or Paid in Cash (\$)		Option Awards (\$) (1)	All Other Compensation (\$)	Total (\$)
Christopher E. Clouser	144,000	(2)	120,000	—	264,000
Richard J. Giacco (3)	35,250	(4)	—	—	35,250
Mannie L. Jackson	—	(5)	102,033	—	102,033
Robert E. McKee III (6)	25,934	(7)	213,421	—	239,355
Andy H. Sassine (8)	10,500	(9)	90,877	—	101,377
Samuel M. Zentman	50,000	(10)	60,000	—	110,000

On September 20, 2013, Christopher E. Clouser, Mannie L. Jackson, Robert E. McKee III and Samuel M. Zentman, were each granted 10,000 options to acquire stock in the Company and Andy H. Sassine was granted 25,000 options to acquire stock in the Company. The options have an exercise price of \$6.31 and expire on September 20, 2020. The fair value of the options was determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 2.05% (ii) an expected term of 6.7 years (iii) an assumed volatility of 58% and (iv) no dividends. On January 1, 2013, Mannie L. Jackson was granted 11,461 options to acquire stock in the Company. The options have an exercise price of \$7.81 and expire on January 1, 2020. The fair value of the options was determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 1.18% (ii) an expected term of 6.7 years (iii) an assumed volatility of 57% and (iv) an annual rate of quarterly dividends of 1.79%. On May 8, 2013, Robert E. McKee III was granted 35,000 options (a 25,000 initial director grant plus an additional 10,000 grant for services rendered prior to his election as a Director) to acquire stock in the Company. The options have an exercise price of \$7.86 and expire on May 8, 2020. The fair value of the options was determined using the Black-Scholes option pricing model using the following assumptions: (i) a risk-free interest rate of 1.20% (ii) an expected term of 6.7 years (iii) an assumed volatility of 57% and (iv) no dividends. All options awarded to directors in 2013 remained outstanding at fiscal year-end. As of December 31, 2013, the number of stock options held by each of the above persons was: Christopher E. Clouser, 97,014; Mannie L. Jackson, 52,967; Robert E. McKee III, 51,506; Andrew H. Sassine, 25,000; and Samuel M. Zentman, 66,506.

(1) Includes fees shown include \$60,000 of Chairman fees, \$40,000 of subsidiary board fees (\$10,000 each for serving on the boards of DSIT, GridSense, OmniMetrix and USSI), \$2,250 received for services rendered as the Chairman of the Nominating Committee, \$1,250 received for services rendered as Chairman of the Compensation Committee and \$500 received for services rendered as a member of the Audit Committee.

(2) Mr. Giacco retired from the Board effective September 20, 2013.

(3) Includes \$3,750 Mr. Giacco received for services rendered as the Chairman of the Compensation Committee and \$1,500 received for services rendered as a member of the Audit Committee.

(4) Mr. Jackson elected to receive in options in lieu of his Retainer and Board fees for 2013.

(5) Mr. McKee joined the Board on May 8, 2013.

(6) Includes \$750 received for services rendered as the Chairman of Nominating Committee.

(7) Mr. Sassine was elected to the Board on September 20, 2013.

(8) Includes \$500 received for services rendered as a member of the Audit Committee.

(9) Includes \$10,000 Dr. Zentman received for services rendered as the Chairman of the Audit Committee.



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Compensation Committee Interlocks and Insider Participation

All members of the Compensation Committee of the Board of Directors during the fiscal year ended December 31, 2013, Messrs. Clouser, Giacco (through September 20, 2013) and Jackson (beginning October 3, 2013), were independent directors and none of them were our employees or our former employees. During the fiscal year ended December 31, 2013, none of our executive officers served on the Compensation Committee (or equivalent), or the board of directors, of another entity whose executive officers served on the Compensation Committee of our Board of Directors.

Compensation Committee Report

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management. Based on such review and discussions, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this annual report on Form 10-K.

Christopher E. Clouser  
Mannie L. Jackson

Table of ContentsITEM SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND  
12. RELATED STOCKHOLDER MATTERS

The following table and the notes thereto set forth information, as of March 1, 2014 (except as otherwise set forth herein), concerning beneficial ownership (as defined in Rule 13d-3 under the Securities Exchange Act of 1934) of common stock by (i) each director of the Company, (ii) each executive officer (iii) all executive officers and directors as a group, and (iv) each holder of 5% or more of the Company's outstanding shares of common stock.

Name and Address of Beneficial Owner (1) (2)	Number of Shares of common stock Beneficially Owned (2)	Percentage of common stock Outstanding (2)
John A. Moore	1,211,390	(3) 5.4%
Mannie L. Jackson	113,989	(4) *
Samuel M. Zentman	119,572	(5) *
Christopher E. Clouser	86,064	(6) *
Robert E. McKee III	16,705	(7) *
Andy H. Sassine	349,480	(8) 1.6%
Michael Barth	97,175	(9) *
Heather K. Mallard	41,000	(10) *
Benny Sela	10,000	(11) *
Joe Musanti	81,200	(12) *
Jim Andersen	6,000	(13) *
All executive officers and directors of the Company as a group (11 people)	2,132,575	(14) 9.4%
Columbia Wanger Asset Management, LLC	1,489,962	(15) 6.7%
Columbia Acorn Fund	1,161,957	(16) 5.2%
Verition Fund Management LLC	2,198,613	(17) 9.9%

\* Less than 1%

(1) Unless otherwise indicated, the address for each of the beneficial owners listed in the table is in care of the Company, 3903 Centerville Road, Wilmington, Delaware 19807.

(2) Unless otherwise indicated, each person has sole investment and voting power with respect to the shares indicated. For purposes of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares as of a given date which such person has the right to acquire within 60 days after such date. Percentage information is based on the 22,991,797 shares outstanding as of March 1, 2014 (exclusive of 801,920 treasury shares outstanding).

(3) Consists of 927,918 shares (2,800 of which are held in an IRA account) and 283,472 shares underlying currently exercisable options.

(4) Consists of 88,100 shares (held in a trust) and 25,889 shares underlying currently exercisable options.

(5) Consists of 61,445 shares and 58,127 shares underlying currently exercisable options.

(6) Consists of 42,500 shares (26,862 of which are held in a trust) and 43,564 shares underlying currently exercisable options.

(7) Consists solely of currently exercisable options.

(8) Consists of 342,978 shares and 6,502 shares underlying currently exercisable options.

(9) Consists of 48,842 shares and 48,333 shares underlying currently exercisable options. Mr. Barth also owns 56,900 shares of DSIT representing approximately 2.6% of DSIT's shares on a fully diluted as converted basis.

(10) Consists of 1,000 shares and 40,000 shares underlying currently exercisable options.

(11)

Consists of 10,000 shares underlying currently exercisable options. Mr. Sela also owns 92,500 shares of DSIT representing approximately 4.2% of DSIT's shares on a fully diluted as converted basis as well as 66,936 currently exercisable options in DSIT representing approximately 3.0% of DSIT's shares on a fully diluted as converted basis.

Consists of 6,200 shares and 75,000 shares underlying currently exercisable options. Mr. Musanti also owns (12) 15,625 currently exercisable options in USSI representing approximately 0.1% of USSI's shares on a fully diluted as converted basis.

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- (13) Consists solely of shares. Mr. Andersen also owns 370,000 shares of USSI, representing approximately 2.6% of the USSI's shares on an a fully diluted as converted basis as of March 1, 2013 as well as 218,750 currently exercisable options in USSI representing approximately 1.5% of USSI's shares on a fully diluted as converted basis.
- (14) Consists of 1,524,983 shares and 607,592 shares underlying currently exercisable options. Includes 1,161,957 shares held by Columbia Acorn Fund. The information presented with respect to this beneficial owner is based on a Schedule 13G filed with the SEC on February 6, 2014. The business address for Columbia Wanger Asset Management, LLC is 227 West Monroe Street, Suite 3000, Chicago, IL 60606. The information presented with respect to this beneficial owner is based on a Schedule 13G filed with the SEC on February 6, 2014. The business address for Columbia Acorn Fund is 227 West Monroe Street, Suite 3000, Chicago, IL 60606.
- (16) Consist of 1,248,613 shares and 950,000 shares underlying call options. The information presented with respect to this beneficial owner is based on a Schedule 13D filed with the SEC on August 22, 2013 and a Form 4 filed on February 19, 2014. The business address for Verition Fund Management LLC is One American Lane, Greenwich, CT 06831.

## EQUITY COMPENSATION PLAN INFORMATION

The table below provides certain information concerning our equity compensation plans as of December 31, 2013.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity Compensation Plans Approved by Security Holders	1,085,825	\$5.69	1,601,920
Equity Compensation Plans Not Approved by Security Holders	601,114	\$4.05	—
Total	1,686,939	\$5.10	1,601,920

The grants made under our equity compensation plans not approved by security holders includes 315,833 option grants which were made under our 2006 Stock Incentive Plan and 2006 Stock Option Plan for Non-Employee Directors during the period from the adoption of such plans in January 2007 and the date of the approval of such plans by shareholders in November 2008. These grants were made to directors, officers and consultants at exercise prices equal to the fair market value on the date of the grant. The options generally vest over a three year period and expire five to ten years from the date of the grant. The grants made under our equity compensation plans not approved by security holders also includes 285,281 warrants issued as compensation to underwriters for services provided in connection capital raise transactions.



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ITEM 13. CERTAIN RELATIONSHIPS, RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Transactions With Related Persons

We paid approximately \$199,000, \$264,000 and \$309,000 in the years ended December 31, 2013, 2012 and 2011, respectively, for legal services rendered and reimbursement of out-of-pocket expenses to Eilenberg & Krause LLP, a law firm in which Sheldon Krause, our Assistant Secretary and former General Counsel, is a member. Such fees related to services rendered by Mr. Krause and other members and employees of his firm. Mr. Krause is the son-in-law of George Morgenstern, a former director and our Chairman Emeritus and Chairman of DSIT, who up until March 2006, also served as our President and Chief Executive Officer. Mr. Krause continues to provide legal services to us in 2014.

Effective August 1, 2013 through its termination on December 31, 2013, we were party to the Rimer CA with Richard Rimer, who served as a member of our Board of Directors until November 11, 2013 and as our EVP from August through December. Mr. Rimer received a total of \$430,080, plus expense reimbursements, during 2013, inclusive of a \$73,728 payment in connection with the termination of the Rimer CA.

Effective January 2013, OmniMetrix hired Chris Gropp as its Chief Information Officer, at an annual salary of \$185,000 plus customary benefits afforded other OmniMetrix senior employees. Mr. Gropp also received a signing bonus of \$25,000. Mr. Gropp was selected for his position by OmniMetrix's President and CEO based upon his qualifications and interview results following a competitive recruitment process. His appointment was also ratified in February, 2013 by the OmniMetrix Board of Managers. Mr. Gropp is the brother-in-law of our CEO, John Moore. Mr. Moore was not involved in the decision to hire Mr. Gropp and abstained from the Board vote ratifying Mr. Gropp's appointment as OmniMetrix's CIO.

Director Independence

Applying the definition of independence provided under the NASDAQ rules, the Board has determined that with the exception of Mr. Moore and Mr. Rimer, who served as a member of our Board of Directors until November 11, 2013, all of the members of the Board of Directors are independent.

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ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Accounting Fees

Friedman LLP

The following table summarized the fees billed to Acorn for professional services rendered by Friedman LLP for the years ended December 31, 2012 and 2013.

	2012	2013
Audit Fees	\$175,000	\$175,000
Audit- Related Fees	39,000	23,000
All Other Fees	5,000	32,000
Total	\$219,000	\$230,000

Audit Fees were for professional services rendered for the audits of the consolidated financial statements of the Company, assistance with review of documents filed with the SEC, consents, and other assistance required to be performed by our independent accountants.

Audit-Related Fees were for travel costs and administrative fees associated with our audit.

All Other Fees in 2013 were for services related to our capital raise. All Other Fees in 2012 were for due diligence services related to our OmniMetrix acquisition

Pre-Approval Policies and Procedures

The Audit Committee's current policy is to pre-approve all audit and non-audit services that are to be performed and fees to be charged by our independent auditor to assure that the provision of these services does not impair the independence of the auditor. The Audit Committee pre-approved all audit and non-audit services rendered by our principal accountant in 2013 and 2012.

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PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) List of Financial Statements of the Registrant

The consolidated financial statements of the Registrant and the report thereon of the Registrant's Independent Registered Public Accounting Firms are included in this Annual Report beginning on page F-1.

Report of Friedman LLP

Consolidated Balance Sheets as of December 31, 2012 and 2013

Consolidated Statements of Operations

Consolidated Statements of Comprehensive Income (Loss)

Consolidated Statements of Changes in Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

(a)(3) List of Exhibits

No.	
3.1	Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2011).
3.2	By laws of the Registrant (incorporated herein by reference to Exhibit 3.2 to the Registrant's Registration Statement on Form S 1 (File No. 33 44027) (the "1992 Registration Statement")).
3.3	Amendments to the By Laws of the Registrant adopted December 27, 1994 (incorporated herein by reference to Exhibit 3.3 of the Registrant's Current Report on Form 8-K dated January 10, 1995).
4.1	Specimen certificate for the common stock (incorporated herein by reference to Exhibit 4.2 to the 1992 Registration Statement).
4.2	Form of Representative Warrant (incorporated herein by reference to Exhibit 4.1 of Registrant's Current Report on Form 8-K filed October 15, 2013)
4.3	Form of Placement Agent Warrant (incorporated herein by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed December 20, 2010).
10.1	Consulting Agreement dated as of March 9, 2006 by and between George Morgenstern and the Registrant (incorporated by reference to Exhibit E to Exhibit 10.1 to the 2006 8-K).*
10.2	Acorn Energy, Inc. 2006 Stock Option Plan for Non-Employee Directors (incorporated herein by reference to the appendix to the Registrant's Definitive Proxy Statement on Schedule 14A filed July 26, 2012, and the Registrant's Additional Definitive Proxy Soliciting Materials on Schedule 14A filed August 28, 2012).*
10.3	Acorn Energy, Inc. 2006 Stock Incentive Plan (incorporated herein by reference to the appendix to the Registrant's Definitive Proxy Statement on Schedule 14A filed July 26, 2012, and the Registrant's Additional Definitive Proxy Soliciting Materials on Schedule 14A filed August 28, 2012).*
10.4	Amendment dated as of March 31, 2009 by and between George Morgenstern and the Registrant to the Consulting Agreement dated as of March 9, 2006 by and between George Morgenstern and the Registrant (incorporated herein by reference to Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009).*

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- 10.5\* Forms of Option Award Certificate and Option Award Agreement under the Registrant’s Amended and Restated 2006 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.52 to Registrant’s Annual Report on Form 10-K for the year ended December 31, 2009).
- 10.6\* Forms of Option Award Certificate and Option Award Agreement under the Registrant’s Amended and Restated 2006 Stock Option Plan for Non-Employee Directors (incorporated herein by reference to Exhibit 10.53 to Registrant’s Annual Report on Form 10-K for the year ended December 31, 2009).
- 10.7 Amended and Restated Investors Rights Agreement by and among the Registrant, US Sensor Systems Inc. and other parties named therein dated as of February 23, 2010 (incorporated herein by reference to Exhibit 10.4 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2010).
- 10.8\* Form of Indemnification Agreement.(incorporated herein by reference to Exhibit 10.47 to the Registrant's Annual report on Form 10-K for the year ended December 31, 2011).
- 10.9\* Amendment of Consulting Agreement between the Registrant and George Morgenstern dated March 15, 2011(incorporated herein by reference to Exhibit 10.55 to the Registrant's Annual report on Form 10-K for the year ended December 31, 2011).
- 10.10\* Letter Agreement between the Registrant and George Morgenstern dated March 31, 2012 (incorporated herein by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.11\* Employment Agreement by and between Registrant and Heather K. Mallard dated January 24, 2012 (incorporated herein by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.12\* 2012 Stock Plan for US Seismic Systems, Inc. (incorporated herein by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.13\* Form of US Seismic Systems, Inc. 2012 Stock Plan Notice of Incentive Stock Option Grant (incorporated herein by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.14\* Form of US Seismic Systems, Inc. 2012 Stock Plan Notice of Non-Statutory Stock Option Grant (incorporated herein by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.15 Amended and Restated Stockholders' Agreement by and among US Seismic Systems, Inc., Registrant and the other parties named therein dated March 19, 2012 (incorporated herein by reference to Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.16\* At-Will Employment, Confidential Information, Non-Competition and Invention Assignment Agreement by and between Registrant and Heather K. Mallard dated January 24, 2012 (incorporated herein by reference to Exhibit 10.11 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012).
- 10.17\* At-Will Employment, Confidential Information, Non-Solicitation and Invention Assignment Agreement by and between Registrant and Lindon Shiao dated June 11, 2012 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012).
- 10.18\* Letter Agreement between the Registrant and George Morgenstern dated July 25, 2012.
- 10.19\* Letter Agreement between the Registrant and Richard S. Rimer dated August 27, 2012.
- 10.20\* Employment Agreement, dated as of December 13, 2012, by and between Acorn Energy, Inc. and John A. Moore.
- 10.21\* Letter Agreement between the Registrant and Richard S. Rimer dated December 29, 2012.

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10.22\* GridSense Employee Incentive Plan (incorporated herein by reference to Exhibit 10.1 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)

10.23\* Form of award for GridSense Employee Incentive Plan (incorporated herein by reference to Exhibit 10.2 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2013)

10.24\* Separation Agreement and Release - Lindon Shiao (incorporated herein by reference to Exhibit 10.1 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013)

10.25\* GridSense Employment Agreement with Joseph Musanti (incorporated herein by reference to Exhibit 10.2 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013)

10.26\* Secondment of Joseph Musanti to US Seismic Systems, Inc. (incorporated herein by reference to Exhibit 10.3 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013)

10.27\* Amendment to Employment Agreement - Benny Sela (amendment to Hebrew-language original summarized under Item 11 in this Annual Report) (incorporated herein by reference to Exhibit 10.4 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013)

10.28\* 2006 DSIT Key Employee Option plan - As Amended (incorporated herein by reference to Exhibit 10.5 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013)

10.29\* Form of Stock Option Agreement to employees under the DSIT 2006 Key Employee Share Option Plan (incorporated herein by reference to Exhibit 10.6 of Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013)

10.30\* Consulting Agreement between the Registrant and Richard Rimer, effective as of August 1, 2013 (incorporated herein by reference to Exhibit 10.4 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2013)

10.31\* Separation Agreement between the Registrant’s OmniMetrix, LLC subsidiary and Deena P. Redding, dated August 29, 2013 (incorporated herein by reference to Exhibit 10.5 to the Registrant’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2013).

10.32 Underwriting Agreement, dated as of October 11, 2013, by and between Acorn Energy, Inc. and Maxim Group, LLC (incorporated herein by reference to Exhibit 1.1 of Registrant’s Current Report on Form 8-K filed October 15, 2013).

#10.33\* Amendment to Employment Agreement between the Registrant and John A. Moore, effective as of November 11, 2013

#10.34\* Amendment to Consulting Agreement between the Registrant and Richard Rimer, effective as of November 11, 2013

#10.35\* Amendment to Employment Agreement between DSIT Solutions Ltd. and Michael Barth, effective as of November 11, 2013 (amendment to Hebrew-language original summarized under Item 11 in this Annual Report)

#21.1 List of subsidiaries.

#23.1 Consent of Friedman LLP.

#31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

#31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

#32.1 Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

#32.2 Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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#101.1 The following financial statements from Acorn Energy's Form 10-K for the year ended December 31, 2013, filed on March 17, 2014, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income (Loss), (iv) Consolidated Statements of Changes in Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements, tagged as blocks of text.

\* This exhibit includes a management contract, compensatory plan or arrangement in which one or more directors or executive officers of the Registrant participate.

# This exhibit is filed or furnished herewith.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Wilmington, State of Delaware, on March 17, 2014.

ACORN ENERGY, INC.

/s/ John A. Moore

By: John A. Moore  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant, in the capacities and on the dates indicated.

Signature	Title	Date
/s/ John A. Moore John A. Moore	President; Chief Executive Officer; and Director (Principal Executive Officer)	March 17, 2014
/s/ Michael Barth Michael Barth	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 17, 2014
/s/ Christopher E. Clouser Christopher E. Clouser	Director and Chairman of the Board	March 17, 2014
/s/ Mannie L. Jackson Mannie L. Jackson	Director	March 17, 2014
/s/ Robert E. McKee III Robert E, McKee III	Director	March 17, 2014
/s/ Andy H. Sassine Andy H. Sassine	Director	March 17, 2014
/s/ Samuel M. Zentman Samuel M. Zentman	Director	March 17, 2014

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ACORN ENERGY, INC.  
AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of  
Acorn Energy, Inc.

We have audited the accompanying consolidated balance sheets of Acorn Energy, Inc. and its subsidiaries (the “Company”) as of December 31, 2013 and 2012 and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows for each of the years in the three year period ended December 31, 2013. We also have audited the Company’s internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company’s management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting, appearing in Item 9A. Our responsibility is to express an opinion on these financial statements and an opinion on the company’s internal control over financial reporting based on our audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2013 and 2012 and the results of its operations and its cash flows for each of years in the three year period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) .

/s/ Friedman LLP

East Hanover, New Jersey  
March 17, 2014

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ACORN ENERGY, INC. AND SUBSIDIARIES  
 CONSOLIDATED BALANCE SHEETS  
 (IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

	As of December 31,	
	2012	2013
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$26,147	\$17,279
Restricted deposit	699	306
Accounts receivable, net	5,481	5,710
Unbilled revenue	5,213	6,421
Inventory, net	5,106	4,540
Other current assets	3,547	1,695
Total current assets	46,193	35,951
Property and equipment, net	927	2,432
Severance assets	3,165	3,539
Restricted deposit	115	—
Intangible assets, net	9,561	3,735
Goodwill	6,630	4,429
Other assets	745	870
Total assets	\$67,336	\$50,956
<b>LIABILITIES AND EQUITY</b>		
Current liabilities:		
Short-term bank credit and current maturities of long-term debt	\$153	\$2,303
Accounts payable	2,631	3,086
Accrued payroll, payroll taxes and social benefits	2,420	2,527
Deferred revenue	3,323	2,764
Other current liabilities	1,708	3,191
Total current liabilities	10,235	13,871
Non-current liabilities:		
Accrued severance	4,491	4,973
Other long-term liabilities	665	600
Total non-current liabilities	5,156	5,573
Commitments and contingencies (Note 16)		
Equity:		
Acorn Energy, Inc. shareholders		
Common stock - \$0.01 par value per share:		
Authorized – 30,000,000 shares; Issued – 18,870,526 and 22,957,859 shares at December 31, 2012 and 2013, respectively	188	229
Additional paid-in capital	83,469	93,943
Warrants	55	526
Accumulated deficit	(29,733	) (59,447
Treasury stock, at cost – 801,920 shares at December 31, 2012 and 2013	(3,036	) (3,036
Accumulated other comprehensive income	716	184
Total Acorn Energy, Inc. shareholders' equity	51,659	32,399
Non-controlling interests	286	(887
Total equity	51,945	31,512
Total liabilities and equity	\$67,336	\$50,956

The accompanying notes are an integral part of these consolidated financial statements.



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ACORN ENERGY, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(IN THOUSANDS, EXCEPT NET INCOME (LOSS) PER SHARE DATA)

	Year ended December 31,		
	2011	2012	2013
Revenues:			
Projects	\$11,368	\$14,651	\$14,128
Products	7,049	3,880	5,962
Services	511	888	1,666
Total revenues	18,928	19,419	21,756
Cost of sales:			
Projects	7,886	10,749	12,225
Products	3,730	2,996	3,931
Services	399	471	444
Total cost of sales	12,015	14,216	16,600
Gross profit	6,913	5,203	5,156
Operating expenses:			
Research and development expenses, net	2,995	6,590	8,175
Selling, general and administrative expenses	11,952	19,361	19,816
Impairment of goodwill and intangibles	—	—	6,731
Restructuring and related charges	—	—	1,389
Total operating expenses	14,947	25,951	36,111
Operating loss	(8,034 )	(20,748 )	(30,955 )
Finance expense, net	(26 )	57	122
Gain on sale of HangXing	492	—	—
Loss before taxes on income	(7,568 )	(20,691 )	(30,833 )
Income tax benefit (expense)	12,767	2,956	(156 )
Net income (loss) from continuing operations	5,199	(17,735 )	(30,989 )
Loss from discontinued operations, net of income taxes	(1,948 )	—	—
Gain on the sale of discontinued operations, net of income taxes	31,069	—	—
Non-controlling interest share of loss from discontinued operations	540	—	—
Net income (loss)	34,860	(17,735 )	(30,989 )
Net loss attributable to non-controlling interests	549	1,024	1,275
Net income (loss) attributable to Acorn Energy, Inc. shareholders	\$35,409	\$(16,711 )	\$(29,714 )
Basic net income (loss) per share attributable to Acorn Energy, Inc. shareholders:			
From continuing operations	\$0.33	\$(0.93 )	\$(1.57 )
From discontinued operations	\$1.70	\$—	\$—
Basic net income (loss) per share attributable to Acorn Energy, Inc. shareholders	\$2.03	\$(0.93 )	\$(1.57 )
Weighted average number of shares outstanding attributable to Acorn Energy, Inc. shareholders – basic	17,462	17,891	18,916
Diluted net income (loss) per share attributable to Acorn Energy, Inc. shareholders:			
From continuing operations	\$0.32	\$(0.93 )	\$(1.57 )
From discontinued operations	\$1.67	\$—	\$—
Diluted net income (loss) per share attributable to Acorn Energy, Inc. shareholders	\$1.99	\$(0.93 )	\$(1.57 )
	17,743	17,891	18,916

Weighted average number of shares outstanding attributable to Acorn Energy,  
Inc. shareholders – diluted

Dividends declared per common share	\$0.085	\$0.140	\$0.035
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The accompanying notes are an integral part of these consolidated financial statements.

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ACORN ENERGY, INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)  
 (IN THOUSANDS)

	Year ended December 31,		
	2011	2012	2013
Net income (loss) attributable to Acorn Energy, Inc. shareholders	\$35,409	\$(16,711)	\$(29,714)
Other comprehensive income (loss):			
Foreign currency translation adjustments	(168)	) 235	(521)
Comprehensive income (loss)	35,241	(16,476)	(30,235)
Other comprehensive (income) loss attributable to non-controlling interests	16	(4)	(11)
Comprehensive income (loss) attributable to Acorn Energy, Inc. shareholders	\$35,257	(16,480)	(30,246)

The accompanying notes are an integral part of these consolidated financial statements.

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ACORN ENERGY, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY  
(IN THOUSANDS)

	Acorn Energy, Inc. Shareholders					Total Acorn Energy, Inc. Shareholders' Interests				
	Number of Shares	Common Stock	Additional Paid-In Capital	Warrants	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Energy, Inc. Shareholders' Equity	Non-controlling Interests	Total Equity
As of December 31, 2012	18,871	\$ 188	\$ 83,469	\$ 55	\$ (29,733 )	\$ (3,036)	\$ 716	\$ 51,659	\$ 286	\$ 51,945
Net loss	—	—	—	—	(29,714 )	—	—	(29,714 )	(1,275 )	(30,989 )
Differences from translation of subsidiaries' financial statements	—	—	—	—	—	—	(532 )	(532 )	11	(521 )
Dividends	—	—	(634 )	—	—	—	—	(634 )	—	(634 )
Dividends in common stock under the Company's Dividend Reinvestment Plan, net of discount (see Notes 17(b) and 17(c))	19	—	* 117	—	—	—	—	117	—	117
Adjustment of non-controlling interests in DSIT following additional investment by the Company	—	—	202	—	—	—	—	202	(202 )	—
Capital raise net of transaction costs (see Note 17 (d))	4,035	41	10,334	—	—	—	—	10,375	—	10,375
Warrants issued in capital raise (see Notes 17(d) and 17(k))	—	—	(482 )	482	—	—	—	—	—	—
Stock option compensation	—	—	926	—	—	—	—	926	—	926
Stock option compensation of	—	—	—	—	—	—	—	—	293	293



subsidiaries

Exercise of  
warrants and  
options

33 — \* 11 (11 ) — — — — —

Balances as of  
December 31,  
2013

22,958 \$ 229 \$ 93,943 \$ 526 \$ (59,447) \$(3,036) \$ 184 \$ 32,399 \$ (887 ) \$ 31,512

\* Less than \$1

The accompanying notes are an integral part of these consolidated financial statements.

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ACORN ENERGY, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY  
(IN THOUSANDS)

	Acorn Energy, Inc. Shareholders					Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Acorn Energy, Inc. Shareholders' Equity		Total Equity
	Number of Shares	Common Stock	Additional Paid-In Capital	Warrants	Accumulated Deficit			Non-controlling Interests		
As of December 31, 2011	18,326	\$ 183	\$ 84,614	\$ 427	\$ (13,022 )	\$(3,036)	\$ 485	\$ 69,651	\$ (84 )	\$ 69,567
Net loss	—	—	—	—	(16,711 )	—	—	(16,711 )	(1,024 )	(17,735 )
Differences from translation of subsidiaries' financial statements	—	—	—	—	—	—	231	231	4	235
Dividends	—	—	(2,507 )	—	—	—	—	(2,507 )	—	(2,507 )
Dividends in common stock under the Company's Dividend Reinvestment Plan, net of discount (see Notes 16(b) and 16(c))	23	—	* 175	—	—	—	—	175	—	175
Adjustment of non-controlling interests in USSI following additional investment by the Company	—	—	(1,067 )	—	—	—	—	(1,067 )	1,067	—
Stock option compensation	—	—	532	—	—	—	—	532	—	532
Stock option compensation of subsidiaries	—	—	—	—	—	—	—	—	323	323
Exercise of warrants and options	522	5	1,722	(372 )	—	—	—	1,355	—	1,355
Balances as of December 31, 2012	18,871	\$ 188	\$ 83,469	\$ 55	\$ (29,733 )	\$(3,036)	\$ 716	\$ 51,659	\$ 286	\$ 51,945

\* Less than \$1

The accompanying notes are an integral part of these consolidated financial statements.

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ACORN ENERGY, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY  
(IN THOUSANDS)

	Acorn Energy, Inc. Shareholders					Total Acorn				
	Number of Shares	Common Stock	Additional Paid-In Capital	Warrants	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Shareholders' Equity	Non-controlling Interests	Total Equity
Balances as of December 31, 2010	18,068	\$ 180	\$ 83,596	\$ 427	\$(48,431)	\$(3,036)	\$ 637	\$ 33,373	\$ 8,504	\$ 41,877
Net income (loss) from continuing operations	—	—	—	—	5,748	—	—	5,748	(549)	5,199
Net income (loss) from discontinued operations	—	—	—	—	29,661	—	—	29,661	(540)	29,121
Differences from translation of subsidiaries' financial statements	—	—	—	—	—	—	(152)	(152)	(16)	(168)
Dividends (see Note 16(c))	—	—	(1,490)	—	—	—	—	(1,490)	—	(1,490)
Adjustment of non-controlling interests in USSI following exercise of USSI option (see Note 3(c))	—	—	600	—	—	—	—	600	(600)	—
Other	—	—	—	—	—	—	—	—	30	30
Stock option compensation	—	—	406	—	—	—	—	406	—	406
Stock option compensation of subsidiaries	—	—	—	—	—	—	—	—	176	176
Deconsolidation of CoaLogix	—	—	1,193	—	—	—	—	1,193	(7,089)	(5,896)
Compensation of consultant granted in stock	26	—	* 101	—	—	—	—	101	—	101
Exercise of options	232	3	208	—	—	—	—	211	—	211
Balances as of December 31, 2011	18,326	\$ 183	\$ 84,614	\$ 427	\$(13,022)	\$(3,036)	\$ 485	\$ 69,651	\$ (84)	\$ 69,567

\* Less than \$1

The accompanying notes are an integral part of these consolidated financial statements.

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ACORN ENERGY, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(IN THOUSANDS)

	2011	2012	2013
Cash flows used in operating activities:			
Net income (loss) before non-controlling interests	\$34,320	\$(17,735 )	\$(30,989 )
Less net loss from discontinued operations	(29,121 )	—	—
Net income (loss) from continuing operations	5,199	(17,735 )	(30,989 )
Adjustments to reconcile net loss to net cash used in operating activities (see Schedule A)	(13,038 )	(4,508 )	13,186
Net cash used in operating activities – continuing operations	(7,839 )	(22,243 )	(17,803 )
Cash flows provided by (used in) investing activities:			
Acquisitions of property and equipment	(502 )	(684 )	(3,466 )
Acquisition of license	—	(150 )	—
Restricted deposits	(1,930 )	(508 )	(114 )
Release of restricted deposits	839	2,188	622
Advances to CoaLogix prior to sale	(278 )	—	—
Amounts funded for severance assets	(315 )	(476 )	(268 )
Proceeds from the sale of Coreworx debt and shares	100	—	—
Proceeds from the sale of CoaLogix net of CoaLogix cash	62,117	—	—
Proceeds from the sale of HangXing	492	—	—
Escrow deposits from CoaLogix sale	(6,308 )	—	—
Proceeds from the sale of Bushing IQ	—	—	281
Release of escrow deposits	347	5,961	—
Investment in short-term deposits	(18,000 )	(8,015 )	—
Maturity of short-term deposits	—	26,015	—
Acquisition of OmniMetrix net of cash acquired (see Schedule C)	—	(7,835 )	—
Net cash provided by (used in) investing activities – continuing operations	36,562	16,496	(2,945 )
Cash flows provided by (used in) financing activities:			
Proceeds from capital raises, net of transaction costs	—	—	10,375
Proceeds from employee stock option and warrant exercises	211	1,355	—
Short-term bank credit, net	(557 )	(510 )	2,303
Proceeds from borrowings of long-term debt	68	16	—
Repayments of long-term debt	(342 )	(173 )	(159 )
Dividends paid	(613 )	(3,208 )	(517 )
Other	30	—	—
Net cash provided by (used in) financing activities – continuing operations	(1,203 )	(2,520 )	12,002
Discontinued operations:			
Operating cash flows	(2,020 )	—	—
Investing cash flows	(187 )	—	—
Financing cash flows	1,683	—	—
Net cash used in discontinued operations	(524 )	—	—
Effect of exchange rate changes on cash and cash equivalents	(72 )	134	(122 )
Net increase (decrease) in cash and cash equivalents	26,924	(8,133 )	(8,868 )
Cash and cash equivalents at beginning of the year of discontinued operations	807	—	—

Cash and cash equivalents at beginning of year of continuing operations	6,549	34,280	26,147
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ACORN ENERGY, INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF CASH FLOWS  
 (IN THOUSANDS)

Cash and cash equivalents at end of year	\$34,280	\$26,147	\$17,279
Supplemental cash flow information:			
Cash paid during the year for:			
Interest	\$144	\$72	\$58
Income taxes, net of refunds	\$2,180	\$216	\$(2,008 )

The accompanying notes are an integral part of these consolidated financial statements.



Table of ContentsACORN ENERGY, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(IN THOUSANDS)

	2011	2012	2013
A. Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	\$851	\$1,406	\$1,456
Change in deferred taxes	(14,657 )	(1,832 )	154
Impairment of goodwill and intangibles	—	—	6,731
Impairment of fixed assets in restructurings	—	—	573
Inventory write-down	—	357	1,121
Impairment of fixed assets	—	—	800
Increase in liability for accrued severance	390	573	307
Gain on sale of HangXing	(492 )	—	—
Gain on sale of Bushing IQ	—	—	(116 )
Stock and stock option compensation	458	855	1,219
Other	(87 )	15	41
Changes in operating assets and liabilities:			
Decrease (increase) in accounts receivable	305	(181 )	(262 )
Decrease (increase) unbilled revenue	28	(1,435 )	(1,208 )
Decrease (increase) in other current assets and other assets	(422 )	(2,365 )	1,722
Increase in inventory	(1,027 )	(3,076 )	(695 )
Increase in accounts payable, accrued payroll, payroll taxes and social benefits, other current liabilities and other non-current liabilities	1,615	1,175	1,343
	\$(13,038)	\$(4,508)	\$13,186
B. Non-cash investing and financing activities:			
Adjustment of additional paid-in-capital and non-controlling interests from additional investment by Acorn in USSI and DSIT	\$600	\$1,067	\$202
Value of shares issued under dividend reinvestment plan		\$175	\$117
Value of warrants issued in capital raise			\$482
Value of shares issued as compensation	\$101		
Dividends payable	\$876		
The accompanying notes are an integral part of these consolidated financial statements.			
C. Assets/liabilities acquired in the acquisition of OmniMetrix			
Accounts receivable		\$(328 )	
Inventory		(234 )	
Other current assets		(10 )	
Property and equipment		(26 )	
Intangible assets		(5,581 )	
Goodwill		(1,930 )	
Current liabilities		274	
		\$(7,835 )	

The accompanying notes are an integral part of these consolidated financial statements.

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NOTE 1— NATURE OF OPERATIONS

(a) Description of Business

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

Through its majority or wholly-owned operating subsidiaries, the Company provides the following services and products:

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

Sonar and acoustic related solutions for energy, defense and commercial markets and other real-time embedded hardware and software development is reported in the Company's Energy & Security Sonar Solutions segment whose activities are conducted through its DSIT Solutions Ltd. ("DSIT") subsidiary.

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

Power Generation (PG) Monitoring. These products and services are provided by the Company's OmniMetrix™, LLC ("OmniMetrix") subsidiary, acquired in February 2012 (See Note 3(a)). OmniMetrix's PG products and services deliver critical, real-time machine information to customers and provide remote diagnostics that give users real-time visibility of their equipment.

The Company's operations are based in the United States, Israel and Australia. Acorn's shares are traded on the NASDAQ Global Market under the symbol ACFN.

See Note 21 for segment information and major customers.

(b) Accounting Principles

The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP").

(c) Use of Estimates in Preparation of Financial Statements

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods.

As applicable to these consolidated financial statements, the most significant estimates and assumptions relate to percentages of completion with respect to revenue recognition, uncertainties with respect to income taxes, inventories, contingencies, purchase price allocations and analyses of the possible impairments.

(d) Amounts in the footnotes in the Financial Statements

All dollar amounts in the footnotes of the consolidated financial statements are in thousands except for per share data.

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NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Presentation

The consolidated financial statements include the accounts of the Company and its subsidiaries. In these consolidated financial statements, “subsidiaries” are companies that are over 50% controlled, the accounts of which are consolidated with those of the Company. Significant intercompany transactions and balances are eliminated in consolidation; profits from intercompany sales, are also eliminated; non-controlling interests are included in equity.

Functional Currency and Foreign Currency Transactions

The currency of the primary economic environment in which the operations of Acorn and its U.S. subsidiaries are conducted is the United States dollar (“dollar”). Accordingly, the Company and all of its U.S. subsidiaries use the dollar as their functional currency. The financial statements of the Company’s Israeli subsidiary whose functional currency is the New Israeli Shekel (“NIS”), the Company’s Australian subsidiary whose functional currency is the Australian dollar (“AU”) have been translated in accordance with applicable accounting principles. Assets and liabilities are translated at year-end exchange rates, while revenues and expenses are translated at average exchange rates during the year. Differences resulting from translation are presented in equity as Accumulated Other Comprehensive Income. Gains and losses on foreign currency transactions and exchange gains and losses denominated in non-functional currencies are reflected in finance income (expense), net, in the Consolidated Statements of Operations when they arise.

Cash Equivalents

The Company considers all highly liquid investments, which include money market funds and short-term bank deposits (up to three months from date of deposit or with maturity of three months from date of purchase) that are not restricted as to withdrawal or use, to be cash equivalents.

Accounts Receivable

Accounts receivable consists of trade receivables. Trade receivables are recorded at the invoiced amount.

Allowance for Doubtful Accounts

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of customers to make required payments. This allowance is based on specific customer account reviews and historical collections experience. If the financial condition of the Company’s funding parties or customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. The Company performs ongoing credit evaluations of its customers and does not require collateral.

No allowance was charged to expense related to trade accounts receivable in the year ended December 31, 2011. During the years ended December 31, 2012 and 2013, \$26 and \$49 was charged to expense, respectively. At December 31, 2012 and 2013, the balance in allowance for doubtful accounts was \$25 and \$8, respectively.

Inventory

Inventories are comprised of components (raw materials), work-in-process and finished goods, which are measured at the lower of cost or market.

GridSense - Raw materials inventory is generally comprised of: electrical components, circuit boards, mechanical fasteners, and housings. Work-in-process inventory is primarily comprised of units that have commenced with assembly as well as capitalized labor and overhead. Finished Goods inventory consists of fully assembled units ready for final shipment to the customer. Costs are determined at cost of acquisition on a weighted average basis and include all outside production and shipping costs.

USSI - Raw materials inventory is generally comprised of: specialized fiber, cables, optical components and electrical components. Work-in-process inventory is primarily comprised of systems that have commenced with assembly as well as capitalized labor associated with the development of the system. Finished Goods inventory consists of fully assembled systems ready for final shipment to the customer. Inventories are stated using the first-in, first-out method.

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OmniMetrix - Raw materials inventory is generally comprised of radios, cables, antennas, and electrical components. Finished Goods inventory consists of fully assembled systems ready for final shipment to the customer. Costs are determined at cost of acquisition on a weighted average basis and include all outside production and applicable shipping costs.

All inventories are periodically reviewed for impairment due to slow-moving and obsolete inventory.

### Investments in Companies Accounted for Using the Equity or Cost Method

Investments in other non-consolidated entities are accounted for using the equity method or cost basis depending upon the level of ownership and/or the Company's ability to exercise significant influence over the operating and financial policies of the investee. When the equity method is used, investments are recorded at original cost and adjusted periodically to recognize the Company's proportionate share of the investees' 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 provided for as the Company is not obligated to provide additional capital. The Company resumes accounting for the investment under the equity method if the entity subsequently reports net income and the Company's share of that net income exceeds the share of net losses not recognized during the period the equity method was suspended.

When an investment accounted for using the equity method issues its own shares, the subsequent reduction in the Company's proportionate interest in the investee is reflected in equity as an adjustment to paid-in-capital. The Company evaluates its investments in companies accounted for by the equity or cost method for impairment when there is evidence or indicators that a decrease in value may be other than temporary. As of December 31, 2012 and 2013, the Company had no investments in non-consolidated entities.

### Non-Controlling Interests

The Financial Accounting Standards Board ("FASB") requires that noncontrolling interests be reported as a component of equity, changes in a parent's ownership interest while the parent retains its controlling interest be accounted for as equity transactions, and upon a loss of control, retained ownership interest will be re-measured at fair value, with any gain or loss recognized in earnings. The Company attributes income and losses to the noncontrolling interests associated with DSIT and USSI.

### Property and Equipment

Property and equipment are presented at cost at the date of acquisition. Depreciation and amortization is calculated based on the straight-line method over the estimated useful lives of the depreciable assets, or in the case of leasehold improvements, the shorter of the lease term or the estimated useful life of the asset, a portion of which is allocated to cost of sales. Improvements are capitalized while repairs and maintenance are charged to operations as incurred.

### Goodwill and Acquired Intangible Assets

Goodwill and intangible assets determined to have an indefinite useful life are not amortized, but instead are tested for impairment at least annually. Intangible assets that have finite useful lives (e.g. purchased technology), are recorded at fair value at the time of the acquisition, and are carried at such value less accumulated amortization. The Company amortizes these intangible assets on a straight-line basis over their estimated useful lives, a portion of which is allocated to cost of sales. Intangible assets are reviewed for impairment in accordance applicable accounting principles.

The Company assesses annually whether there is an indication that goodwill is impaired, or more frequently if events and circumstances indicate that the asset might be impaired during the year. The Company performs its annual impairment test in the fourth quarter of each year.

Application of the goodwill impairment test requires judgment, including the identification of reporting units, assignment of assets and liabilities to reporting units, assignment of goodwill to reporting units, and determination of the fair value of each reporting unit. The Company has identified its operating segments as its reporting units for purposes of the impairment test. The Company's existing goodwill and intangible assets are associated with its Oil & Gas Sensor Systems, Energy & Security Sonar Solutions, GridSense, Power Generation, and "Other" segments.

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 is effective for annual and interim goodwill impairment tests performed



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for fiscal years beginning after December 15, 2011, and early adoption is permitted. As discussed more fully in Note 12(a) to the Consolidated Financial Statements, the Company early adopted this guidance for its annual goodwill impairment test that was conducted in the fourth quarter of 2011.

If the Company determined that it was necessary to perform a two-step goodwill impairment test, it 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.

### Impairment of Long-Lived Assets

Long-lived assets including certain intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset. See Note 12 (b) for the impairment charge recorded in 2013.

### Treasury Stock

Shares of common stock repurchased are recorded at cost as treasury stock. When shares are reissued, the cost method is used for determining cost. In accordance with GAAP, the excess of the acquisition cost over the reissuance price of the treasury stock, if any, is charged to additional paid-in capital, limited to the amount previously credited to additional paid-in capital, if any. Any excess is charged to accumulated deficit.

### Revenue Recognition

The Company's revenue recognition policy is consistent with applicable revenue recognition guidance and interpretations.

The Company recognizes revenue when persuasive evidence of an arrangement exists, services have been rendered, the price is fixed or determinable, and collectability is reasonably assured.

The Company assesses whether payment terms are customary or extended in accordance with normal practice relative to the market in which the sale is occurring. The Company's sales arrangements generally include standard payment terms. These terms effectively relate to all customers, products, and arrangements regardless of customer type, product mix or arrangement size.

If revenue recognition criteria are not satisfied, amounts received from customers are classified as deferred revenue on the balance sheet until such time as the revenue recognition criteria are met.

Revenues from fixed-price contracts which require significant production, modification and/or customization to customer specifications are recognized using the percentage-of-completion method. Percentage-of-completion estimates are in man-months of labor and are reviewed periodically, and any adjustments required are reflected in the period when such estimates are revised. Losses on contracts, if any, are recognized in the period in which the loss is determined. Such revenues are recorded by DSIT in the Consolidated Statement of Operations in revenues from "Projects". DSIT encountered a significant change in estimate for a material project due to increased estimated

installation costs of its AquaShield™ Diver Detection Sonar system. The aggregate net changes in the contract estimates recognized using the cumulative catch-up method of accounting increased operating income by \$1,629 (\$0.06 per basic share) in 2013, decreased operating income by \$699 (\$0.01 per basic share) in 2012 and decreased operating income by \$930 (\$0.04 per basic share and \$0.04 per diluted share) in 2011.

Revenue from sales of sensor products is recognized at the time title to the products and significant risks of ownership pass to the customer, which is generally upon shipment, when all significant contractual obligations have been satisfied and collection is reasonably assured. Such revenues are recorded by USSI in the Consolidated Statement of Operations in revenues from “Projects”.

Revenue from sales of monitoring equipment is recognized at the time title to the equipment and significant risks of ownership pass to the customer (which is generally upon shipment), when all significant contractual obligations have been satisfied

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and collection is reasonably assured. Equipment and customer support services revenue is recognized upon delivery of the systems when persuasive evidence of an arrangement exists that includes obtaining a written agreement in the form of a sales order with the customer, collection is probable, and the fee is fixed and determinable. Such revenues are recorded by GridSense in the Consolidated Statement of Operations in revenues from “Products”.

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 CP 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 which is estimated to be 24 months. Such revenues are recorded by OmniMetrix in the Consolidated Statement of Operations as “Product” revenues. 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. Such revenues are recorded by OmniMetrix in the Consolidated Statement of Operations as “Service” revenues.

Revenues from consulting, time-and-materials service contracts, maintenance agreements and other services are recognized as services are provided. Such revenues are recorded by DSIT in the Consolidated Statement of Operations as “Service” revenues.

### Unbilled Revenue

Revenues may be earned for those services in advance of amounts billable to the customer and are recognized when the service is performed. Revenues recognized in excess of amounts billed for projects in process are recorded as unbilled revenue. Such amounts are generally billed upon the completion of a project milestone.

### Warranty Provision

The Company’s DSIT subsidiary generally grants its customers one to two year warranty on its projects. Each of the Company’s GridSense, OmniMetrix and USSI subsidiaries generally grants their customers a one year warranty on their respective products.

Estimated warranty obligations are provided for as a cost of sales in the period in which the related revenues are recognized, based on management’s estimate of future potential warranty obligations and limited historical experience. Adjustments are made to accruals as warranty claim data and historical experience warrant.

The Company’s warranty obligations may be materially affected by product or service failure rates and other costs incurred in correcting a product or service failure. Should actual product or service failure rates or other related costs differ from the Company’s estimates, revisions to the accrued warranty liability would be required.

### Concentration of Credit Risk

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents, restricted deposits and accounts receivable. The Company’s cash, cash equivalents and restricted cash deposits were deposited with U.S., Israeli and Australian banks and other financial institutions and amounted to \$17,585 at December 31, 2013. The Company uses major banks and brokerage firms to invest its excess cash, primarily in money market funds. The counterparty to the Company's 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 33% of the accounts receivable at December 31, 2013, was due from two customers who pay their receivables over usual credit periods (as to revenues from significant customers – see Note 21(d)). 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 77% of the balance in unbilled revenue at December 31, 2013 was due from four 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.

#### Research and Development Expenses

Research and development expenses consist primarily of labor and related expenses and are charged to operations as incurred. Participation by third parties in the Company’s research and development costs as well as credits arising from qualifying research and experimental development expenditures are netted against research and development.

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### Advertising Expenses

Advertising expenses are charged to operations as incurred. Advertising expense was \$127, \$138 and \$256 for each of the years ended December 31, 2011, 2012 and 2013, respectively.

### Stock-Based Compensation

The Company accounts for stock-based awards to employees in accordance with applicable accounting principles, which requires compensation expense related to share-based transactions, including employee stock options, to be measured and recognized in the financial statements based on a determination of the fair value of the stock options. The grant date fair value is determined using the Black-Scholes-Merton ("Black-Scholes") pricing model. For all employee stock options, we recognize expense over the requisite service period on an accelerated basis over the employee's requisite service period (generally the vesting period of the equity grant). The Company's option pricing model requires the input of highly subjective assumptions, including the expected stock price volatility, expected term, and forfeiture rate. Any changes in these highly subjective assumptions significantly impact stock-based compensation expense.

Options awarded to purchase shares of common stock issued to non-employees in exchange for services are accounted for as variable awards in accordance with applicable accounting principles. Such options are valued using the Black-Scholes option pricing model.

See Note 17(e) and 17(f) for the assumptions used to calculate the fair value of stock-based employee and non-employee compensation. Upon the exercise of options, it is the Company's policy to issue new shares rather than utilizing treasury shares.

### Deferred Income Taxes

Deferred income taxes reflects the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as operating loss, capital loss and tax credit carryforwards. Deferred tax assets and liabilities are classified as current or non-current based on the classification of the related assets or liabilities for financial reporting, or according to the expected reversal dates of the specific temporary differences, if not related to an asset or liability for financial reporting. Valuation allowances are established against deferred tax assets if it is more likely than not that the assets will not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates or laws is recognized in operations in the period that includes the enactment date. At December 31, 2013 and 2012, U.S. income taxes were not provided on undistributed earnings of the Company's DSIT subsidiary because such earnings have been reinvested in foreign operations. If those earnings were repatriated to the U.S., the Company would not expect to owe additional U.S. income taxes due to the utilization of net operating loss carryovers.

### Income Tax Uncertainties

The calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations. The Company recognizes liabilities for uncertain tax positions based on the two-step process prescribed by applicable accounting principles. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step requires the Company to

estimate and measure the tax benefit as the largest amount that is more likely than not being realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as this requires the Company to determine the probability of various possible outcomes. The Company reevaluates these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit, and new audit activity. Such a change in recognition or measurement would result in the recognition of a tax benefit or an additional charge to the tax provision in the period. The Company recognizes interest and penalties as incurred in finance income (expense), net in the Consolidated Statements of Operations.

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## Basic and Diluted Net Income (Loss) Per Share

Basic net income (loss) per share is computed by dividing the net income (loss) attributable to Acorn Energy, Inc. by the weighted average number of shares outstanding during the year, excluding treasury stock. Diluted net income (loss) per share is computed by dividing the net income (loss) by the weighted average number of shares outstanding plus the dilutive potential of common shares which would result from the exercise of stock options and warrants. The dilutive effects of stock options and warrants are excluded from the computation of diluted net loss per share if doing so would be antidilutive. The weighted average number of options and warrants that were excluded from the computation of diluted net loss per share, as they had an antidilutive effect, was approximately 867,000, 1,826,000 and 1,452,000 for the years ending December 31, 2011, 2012 and 2013, respectively.

The following data represents the amounts used in computing EPS and the effect on net income and the weighted average number of shares of dilutive potential common stock:

	Year ended December 31,		
	2011	2012	2013
Net income available to common stockholders	\$35,409	\$(16,711	) \$(29,714
Weighted average shares outstanding:			
-Basic	17,462	17,891	18,916
Add: Warrants	26	—	—
Add: Stock options	255	—	—
-Diluted	17,743	17,891	18,916
Basic net income per share	\$2.03	\$(0.93	) \$(1.57
Diluted net income per share	\$1.99	\$(0.93	) \$(1.57

## Fair Value Measurement

The Company follows the provisions of the accounting standard which defines fair value, establishes a framework for measuring fair value and enhances fair value measurement disclosure. Under these provisions, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the “exit price”) in an orderly transaction between market participants at the measurement date.

The standard establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use on unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The hierarchy is described below:

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

See Notes 3, 7, 12 and 23.

Recently Issued Accounting Principles

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There have been no recent accounting pronouncements or changes in accounting pronouncements during the year ended December 31, 2013, that are of material significance, or have potential material significance, to the Company.

Reclassifications

Certain reclassifications have been made to the Company's prior year's consolidated financial statements to conform to the current year's consolidated financial statement presentation.

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## NOTE 3—INVESTMENTS IN SUBSIDIARIES

## (a) OmniMetrix, LLC.

On February 15, 2012, the Company entered into a definitive agreement pursuant to which it acquired, through its XYZ Holdings, Inc. wholly-owned Georgia subsidiary ("Holdings" which has been renamed OMX Holdings, Inc.), all of the issued and outstanding limited liability company membership interests (the "Interests") in OmniMetrix, LLC, a Georgia limited liability company ("OmniMetrix"). OmniMetrix is in the business of designing, manufacturing, marketing and selling (i) wireless remote systems that monitor standby power generation, backup power generators, remote powered equipment, cellular towers, emergency towered communications and remote tower sites (the "Power Generation Monitoring" segment - see Note 21), and (ii) cathodic protection products to monitor pipeline integrity (the "Cathodic Protection" segment - included in the Company's "Other" segment - see Note 21). Holdings purchased the Interests in OmniMetrix from its three individual holders (the "Sellers") in consideration for an aggregate cash payment of \$8,500. The Company incurred approximately \$300 of transaction costs in connection with the acquisition of OmniMetrix which are included in Selling, general and administrative expense in the Consolidated Statement of Operations.

The transaction was accounted for as a purchase business combination. OmniMetrix's results from operations for the period from acquisition (February 15, 2012) to December 31, 2012 have been included in the Company's Consolidated Statement of Operations. Such results in 2012 included \$661 of revenues and a net loss of \$2,643 associated with OmniMetrix's activities.

In accordance with generally accepted accounting principles, the fair value of OmniMetrix is allocated to OmniMetrix's identifiable tangible and intangible assets and liabilities assumed based on their fair values as of the date of the transaction. Based upon a third-party valuation of intangible assets as of that date, the Company allocated the \$8,500 consideration of the fair value to assets and liabilities as follows:

Cash	\$665	
Accounts receivable	328	
Inventory	234	
Other current assets	10	
Property and equipment	26	
Intangible assets (see Note 12 for allocation to segments)	5,581	
Goodwill (see Note 12 for allocation to segments)	1,930	
Total assets acquired	8,774	
Current liabilities	(274	)
Fair value of net assets acquired	\$8,500	

Intangible assets with finite useful lives are amortized over their estimated useful lives. The intangible assets acquired and their weighted average estimated useful life in years is noted in the table below:

Intangible Asset Acquired	Estimated value	Weighted average estimated useful life in years
OmniMetrix technologies	\$2,319	10
Customer relationships	3,236	14
Non-compete agreements	26	6
	\$5,581	

Goodwill is not amortized for financial statement purposes in accordance with generally accepted accounting principles and is deductible for tax purposes. See Note 7 with respect to restructuring charges and Note 12 with respect to impairments recorded to goodwill and intangibles with respect to OmniMetrix in 2013.

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(b)U.S. Seismic Systems, Inc. ("USSI")

On December 31, 2010, the Company owned 1,155,160 shares of USSI's common stock representing 65.6% of USSI's capitalization after having invested \$1,500 in USSI and paying \$2,229 of the Company's common stock to acquire shares of USSI common stock held by non-employee stockholders.

On January 25, 2011 the Company exercised an option to increase its investment in USSI and transferred \$250 to USSI. On February 9, 2011, the Company exercised additional options and transferred an additional \$750 to USSI. Following these option exercises, the Company increased its holdings in USSI to 80.6%. The Company's final option to invest \$1,500 in USSI and increase its holdings to 87.4% expired in May 2011. In the period from June to December 2011, the Company advanced USSI \$2,000 in contemplation of a new investment agreement.

On February 6, 2012, the Company entered into a new Stock Purchase Agreement (the "USSI Purchase Agreement") with USSI pursuant to which the Company converted previously advanced funds into additional shares of USSI common stock ("USSI Common Stock") and shares of USSI's new Series A-1 Preferred Stock ("USSI Preferred Stock"). The Company also made a further payment to USSI of \$2,250 on February 6, 2012 to purchase additional shares of USSI Preferred Stock. The USSI Preferred Stock provides that upon any future liquidation of USSI, to the extent funds are available for distribution to USSI's stockholders after the satisfaction of any USSI liabilities at that time, USSI would first repay the Company for the purchase price of its USSI Preferred Stock. Thereafter, the Company would receive a further payment for such shares ratably with all other USSI Common Stock holders as though the Company's shares of USSI Preferred Stock were the same number of shares of USSI Common Stock. In April 2012, the Company conducted a second closing for the purchase of additional USSI Preferred Stock in accordance with the USSI Purchase Agreement and invested an additional \$2,500 in USSI. Following this investment, the Company owned approximately 92% of USSI upon conversion of the USSI Preferred Stock. On July 30, 2012, the Company entered into another Stock Purchase Agreement (the "Summer USSI Purchase Agreement") with USSI pursuant to which the Company made a payment to USSI of \$2,500 to purchase additional shares of USSI Preferred Stock. The USSI Preferred Stock is the same class of shares that the Company acquired earlier that year (see above). In connection with this investment, the Company also entered into a Second Amended and Restated Stockholders Agreement with USSI and its other stockholders providing for certain rights and obligations to purchase or sell our USSI securities and with regard to the management of USSI.

Following the July 30, 2012 payment to USSI, the Company owned approximately 93.6% of USSI upon conversion of the USSI Preferred Stock. The Summer USSI Purchase Agreement contemplated that the Company would make an additional investment of \$2,500 later in 2012 in exchange for additional shares of USSI Preferred Stock. On November 1, 2012, the Company made this additional investment. Following the November 1, 2012 payment to USSI, the Company owned approximately 94.4% of USSI upon conversion of the USSI Preferred Stock (which amount would be diluted to approximately 85.1% if all options which could be awarded under USSI's 2012 Stock Purchase Plan were awarded and exercised).

On February 28, 2013, the Company entered into a new Stock Purchase Agreement with USSI pursuant to which the Company made a payment to USSI of \$2,500 to purchase additional shares of USSI Preferred Stock. In May 2013, the Company made another payment of \$2,500 to purchase additional shares of USSI Preferred Stock. The USSI Preferred Stock is the same class of shares that the Company acquired in 2012.

On August 21, 2013, the Company entered into a second Stock Purchase Agreement with USSI pursuant to which the Company made a payment to USSI of \$1,000 to purchase additional shares of USSI Preferred Stock. The USSI Preferred Stock is the same class of shares that the Company acquired earlier in 2013.

Following the August 2013 investment in USSI, the Company owned approximately 95.7% of USSI on an as converted basis (which amount would be diluted to approximately 88.4% if all options which could be awarded under USSI's 2012 Stock Purchase Plan were awarded and exercised). Through December 31, 2013, the Company has invested \$7,584 in USSI common shares (of which \$5,355 was in cash and \$2,229 was in Acorn common shares) and an additional \$16,750 in USSI Preferred Stock. In addition, during the period from August to December 2013, the Company advanced USSI \$1,355 in contemplation of a new investment agreement.

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In the years ending December 31, 2011 and 2012, in accordance with generally accepted accounting principles, the Company recorded an adjustment of \$600 and \$1,067, respectively, to the non-controlling interests balance with respect to the Acorn investment in common shares of USSI.

(c) DSIT Solutions, Ltd. ("DSIT")

Effective July 1, 2013, the Company entered into a Stock Purchase Agreement with DSIT (the "DSIT SPA") pursuant to which the Company converted a prior loan of approximately \$800 into additional ordinary (common) shares of DSIT. The Company also converted \$2,800 in advances and loans into DSIT's Participating Preferred Stock (the "DSIT Preferred Stock"). At the closing, Acorn purchased an additional \$800 of DSIT Preferred Stock and committed to purchasing an additional \$1,400 of DSIT Preferred Stock.

The DSIT Preferred Stock provides that upon any future liquidation of DSIT, to the extent funds are available for distribution to DSIT's stockholders after the satisfaction of any DSIT liabilities at that time, DSIT would first repay the Company for the purchase price of our DSIT Preferred Stock. Thereafter, the Company would receive a further payment for such shares ratably with all other DSIT ordinary stock holders as though the Company's shares of DSIT Preferred Stock were the same number of DSIT ordinary shares.

In September 2013, the Company informed DSIT that it would suspend payment of funds it committed to invest in DSIT over the remainder of 2013 and in 2014. The DSIT SPA will need to be amended to reflect this decision. The Company is unable at this time to predict the terms of the amendment.

The Company currently owns approximately 88.3% of DSIT on an as converted basis. If all the options to purchase all shares of DSIT ordinary stock available under the DSIT Option Plan are granted and exercised, the Company would own approximately 77.4% of DSIT on a fully diluted as converted basis.

In the year ended December 31, 2013, in accordance with generally accepted accounting principles, the Company recorded an adjustment of \$202 to the non-controlling interests balance with respect to the Acorn investment in common shares of DSIT.

(d) GridSense

On December 19, 2013, GridSense sold its Bushing IQ product line (also known as OMI) for \$281 and recorded a gain on the sale of \$116 which is included in Selling, general and administrative expense. The Bushing IQ product line provided revenues of \$167, \$260 and \$152 (included in Revenues - Products) during the years ended December 31, 2011, 2012 and 2013.



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NOTE 4— SALE OF COALOGIX

On August 31, 2011 (the “Closing Date”), the Company completed its sale of its majority owned CoaLogix Inc. subsidiary (“CoaLogix”) pursuant to a Stock Purchase Agreement with EnerTech Capital Partners III L.P., certain management employees of the CoaLogix subsidiary (collectively with the Company, the "Sellers"), CoaLogix and CoaLogix Holdings, Inc. (the "Buyer"), pursuant to which the Sellers sold all the outstanding capital stock of CoaLogix to the Buyer for \$101,000 (subject to certain adjustments) in cash. The Company owned approximately 65% of CoaLogix on a fully diluted basis and received \$61,915 in consideration for its CoaLogix shares, of which \$5,961 was deposited in an escrow account to secure possible indemnification claims and \$347 was deposited in an escrow account against a possible working capital shortfall and which was released to the Company in the fourth quarter of 2011. The Company received the \$5,961 escrow balance in the third quarter of 2012.

In connection with the sale of the Company's shares of common stock of CoaLogix, the Company recorded a gain of \$46,974 (included in the gain is \$485 which was received as part of an additional working capital adjustment in the fourth quarter of 2011). The Company also recorded income taxes of \$15,971 based on a Federal income tax rate of 34%. The net gain of \$31,003 is reflected in the Company's Consolidated Statement of Operations as a “Gain on the sale of discontinued operations”. Concurrently, the Company recorded an income tax benefit of approximately \$14,571 with respect to the recognition of previously unrecognized deferred tax assets primarily associated with previous years' net losses.

CoaLogix losses for the period from January 1, 2011 to the Closing Date reflected as “Loss from discontinued operations, net of income taxes” in the Company's Consolidated Statements of Operations (see Note 5(a)).



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NOTE 5—DISCONTINUED OPERATIONS

(a) CoaLogix

CoaLogix revenues for the period from January 1, 2011 to the Closing Date were \$12,084. CoaLogix losses of \$1,948 for the period from January 1, 2011 to the Closing Date are reflected as “Loss from discontinued operations, net of income taxes” in the Company's Consolidated Statements of Operations.

The non-controlling interests' share of CoaLogix's net loss in the period from January 1, 2011 to the Closing Date was \$540.

(b) Coreworx

On October 31, 2011, the Company sold its 10% stake in Coreworx and the entire \$4,000 of Coreworx Debt, its right to future royalties and the \$40 restructuring fee (which was at the time still unpaid) back to Coreworx for \$100. The Company recorded a \$64 gain (net of income taxes of \$34) on the transaction in Gain on the sale of discontinued operations, net of income taxes in the Company's Consolidated Statements of Operations. The Company still retains its warrants to acquire 10% of Coreworx. The warrants have an exercise price denominated in Canadian dollars (the current total exercise price is \$341) and expire on December 17, 2015.

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NOTE 6—OTHER INVESTMENTS

In March 2011, the Company sold its 25% interest in HangXing International Automation Engineering Co. Ltd. (“HangXing”) back to the majority owner, China Aero-Polytechnology Establishment for \$492 (\$454 net of taxes withheld). HangXing is a value-added reseller for PLC based industrial automation systems for steel manufacturing. Acorn’s investment of approximately \$250 in HangXing was made in 1995. The investment was entirely written-off in 1999.

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## NOTE 7— RESTRUCTURING AND RELATED CHARGES

## (a) GridSense

During the second quarter of 2013, following a change in its management, the Company's GridSense segment made a decision to restructure operations in both its USA and Australian entities. This action was taken primarily in order to improve efficiency based on GridSense's revenue mix and skills mix. Accordingly, GridSense recorded a restructuring charge of \$302 related to severance and other termination benefits for 17 employees whose positions were made redundant both in the United States and in Australia. In addition, in connection with downsizing its Australian operations, GridSense decided to move its operations to a smaller facility and recorded a restructuring charge of \$101, consisting of contractual rental commitments and related moving costs. In connection with that move, GridSense recorded a loss of \$39 reflecting the remaining book value of abandoned fixed assets. Following the restructuring, GridSense's Australian operations no longer have a production line and have minimal research and development activities. Substantially all product production and development now take place at GridSense's U.S. operations facility in Sacramento. As a result of the cessation of production activities in Australia, GridSense also recorded a provision of \$152 related to products which had been produced in Australia, but will no longer be produced or supported by U.S. operations.

The following table summarizes GridSense's restructuring charges during the year ended December 31, 2013:

Employee severance and termination benefits	\$ 302
Facilities costs	101
Abandonment of fixed assets	39
Inventory obsolescence	152
Total	\$ 594

The following table presents activity during the year ended December 31, 2013 related to GridSense's restructuring:

	Employee severance and termination benefits	Facilities	Inventory and fixed asset impairments	Total
Balance at December 31, 2012	\$—	\$—	\$—	\$—
Provision	302	101	191	594
Cash payments	(239)	) (101	) —	(340)
Non-cash settlements	—	—	(191	) (191)
Balance at December 31, 2013	\$63	\$—	\$—	\$63

The total remaining accrued restructuring balance of \$63 with respect to GridSense's restructuring is expected to be paid in full by December 31, 2014 and is included in Other current liabilities in the Company's Consolidated Balance Sheets.

## (b) OmniMetrix

During the first half of 2013, OmniMetrix marketed its Power Generation Monitoring ("PG") products primarily to dealers and distributors of the most common brands of generators. While some larger dealers have embraced OmniMetrix's business model (a recurring revenue model where monitors are sold at or below cost in exchange for customer commitments for fixed term monitoring contracts), it has not universally resonated within the dealer marketplace and the rate of anticipated adoption (and thus sales of monitors and monitoring subscriptions) has been far slower than anticipated. Revenue in 2013 and expected future monitoring revenues from renewals were significantly adversely impacted by an inability to make sufficient new sales (see Note 12 for impairments of goodwill and intangibles). OmniMetrix has refined 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. The Company intends 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, and as a first step appointed the CEO of GridSense to also serve as CEO of OmniMetrix in July 2013.

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OmniMetrix has restructured its operations to better align expenses with revenues as now projected by its new management. This resulted in personnel layoffs and significantly reduced utilization of its leased facility in Buford, Georgia. Accordingly, OmniMetrix recorded a restructuring charge of \$178 related to severance and other termination benefits for employees replaced or whose positions were made redundant. In addition, as a result of the expected significantly reduced utilization of its leased facility, OmniMetrix also recorded a restructuring charge of \$202 for the expected net contractual rental commitments through the end of its lease in December 2019. Furthermore, OmniMetrix recorded a loss of \$415 reflecting the write-down of a majority of the remaining book value of leasehold improvements associated with the leased facility net of the landlord's participation (\$119) in those improvements. The entire restructuring charge at OmniMetrix of \$795 is reflected in the unallocated cost of OmniMetrix headquarters (see Note 21(c)).

The following table summarizes OmniMetrix's restructuring charges during the year ended December 31, 2013:

Employee severance and termination benefits	\$ 178
Facilities costs	202
Fixed asset impairments, net	415
Total	\$ 795

The following table presents activity during the year ended December 31, 2013 related to OmniMetrix's restructuring:

	Employee severance and termination benefits	Facilities	Fixed asset impairments	Total
Balance at December 31, 2012	\$—	\$—	\$—	\$—
Provision	178	202	415	795
Cash payments	(133	) (8	) —	(141
Non-cash settlements	—	—	(415	) (415
Balance at December 31, 2013	\$45	\$194	\$—	\$239

The total remaining accrued restructuring balance of \$239 is expected to be paid in full by December 31, 2019 and is included in Other current liabilities (\$74) and Other liabilities (\$165) in the Company's Consolidated Balance Sheets.

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## NOTE 8—NON-CONTROLLING INTERESTS

The composition of the net loss attributable to non-controlling interests (“NCI”) is as follows:

	Year ended December 31,		
	2011	2012	2013
Net loss (income) attributable to NCI in DSIT	\$(22	) \$(84	) \$61
Net loss attributable to NCI in USSI	571	1,108	1,214
Net loss attributable to NCI	\$549	\$1,024	\$1,275

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## NOTE 9—INVENTORY

	As of December 31,	
	2012	2013
Raw materials	\$3,281	\$2,771
Work-in-process	782	506
Finished goods	1,043	1,263
	\$5,106	\$4,540

No inventory impairment was recorded in 2011. During 2012 the Company recorded an inventory impairment charge of \$357 of which \$349 was in the Company's GridSense segment and is included in Cost of Sales - Products. During 2013 the Company recorded an inventory impairment charge of \$1,121 of which \$958 was in the Company's Oil & Gas Sensor Systems segment (included in Cost of Sales - Projects), \$152 in its GridSense segment (included in Cost of Sales - Products) and \$11 in its Power Generation Monitoring segment (included in Cost of Sales - Products). At December 31, 2012 and 2013, the Company's inventory reserve was \$316 and \$1,139, respectively.

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NOTE 10—OTHER CURRENT ASSETS

	As of December 31,	
	2012	2013
Prepaid expenses and deposits	\$396	\$656
Taxes receivable	2,096	—
Employee advances	195	150
Other receivables	—	190
Funded severance assets	—	137
Deferred taxes	288	138
Derivative assets	112	—
Deferred costs	460	424
	\$3,547	\$1,695

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## NOTE 11—PROPERTY AND EQUIPMENT, NET

Property and equipment consists of the following:

	Estimated Useful Life (in years)	As of December 31,	
		2012	2013
Cost:			
Computer hardware and software	2 - 5	\$1,081	\$1,374
Equipment *	3 - 14	1,636	2,886
Vehicles	5	43	21
Leasehold improvements	Term of lease	482	1,103
		3,242	5,384
Accumulated depreciation and amortization			
Computer hardware and software		759	832
Equipment		1,111	1,669
Vehicles		34	13
Leasehold improvements		411	438
		2,315	2,952
Property and equipment, net		\$927	\$2,432

\* Equipment balance at December 31, 2013 includes \$776 of sensor systems built-to-lease currently under construction for USSI.

Depreciation and amortization in respect of property and equipment amounted to \$317, \$429 and \$607 for 2011, 2012 and 2013, respectively. During 2013, the Company recorded a provision of \$800 with respect to the sensor systems built-to-lease currently under construction. Such provision was recorded to Cost of Goods Sold - Projects in the Consolidated Statements of Operations. See Note 7 with respect to impairments and write-offs related to restructurings during 2013.

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## NOTE 12—GOODWILL AND INTANGIBLE ASSETS

## (a) Goodwill

The changes in the carrying amounts of goodwill by segment from December 31, 2011 to December 31, 2013 were as follows:

	Energy & Security Sonar Solutions segment	GridSense segment	USSI segment	Power Generation Monitoring segment	Cathodic Protection segment*	Total
Balance as of December 31, 2011	\$ 527	\$ 2,708	\$ 1,402	\$ —	\$ —	\$ 4,637
Goodwill recorded in the acquisition of OmniMetrix (see Note 3(a))	\$ —	\$ —	\$ —	\$ 1,517	\$ 413	1,930
Translation adjustment	14	49	—	—	—	63
Balance as of December 31, 2012	541	2,757	1,402	1,517	413	6,630
Impairment	—	—	—	(1,517	) (413	) (1,930
Translation adjustment	40	(311	) —	—	—	(271
Balance as of December 31, 2013	\$ 581	\$ 2,446	\$ 1,402	\$ —	\$ —	\$ 4,429

\* Results for the Cathodic Protection segment are included in "Other" in Segment Reporting (see Note 21).

As required, the Company performs an annual impairment test of recorded goodwill (during the fourth quarter of each year), or more frequently if impairment indicators or triggering events are present. In September 2011, the 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.

In performing the 2012 and 2013 goodwill impairment test for our reporting units (other than GridSense in 2012 and Power Generation Monitoring and Cathodic Protection in 2013 - see below), the Company assessed the relevant qualitative factors and concluded that it is more likely than not that the fair values of our reporting units are greater than their carrying amounts. After reaching this conclusion, no further testing was performed. The qualitative factors we considered included, but were not limited to, general economic conditions, industry and market conditions, pipeline and backlog, our recent and forecasted financial performance and the price of the Company's common stock.

In 2012, with respect to the Company's GridSense reporting unit, the Company quantitatively evaluated its goodwill for impairment and determined that the fair value of this reporting unit exceeded its carrying value. The estimated fair value of the GridSense reporting unit used in the analysis exceeded its carrying values by approximately \$1,100 or 17%. In 2013, the amount by which the estimated fair value of the GridSense reporting unit exceeded its carrying values increased to over \$5,000.

OmniMetrix's PG segment operates primarily on a recurring revenue model where monitors are sold at or below cost in exchange for customer commitments for fixed term monitoring contracts. During the first half of 2013, OmniMetrix marketed primarily to dealers and distributors of the most common brands of generators. While some larger dealers have embraced this business model, it has not universally resonated within the dealer marketplace and the rate of adoption (and thus sales of monitors and monitoring subscriptions) has been far slower than anticipated. Revenue in 2013 and future years (for both PG and CP segments) have been significantly adversely impacted by the inability to

make expected penetration in the marketplace and future projections for the segments have been adjusted accordingly. Following a goodwill impairment analysis based upon expected discounted cash flows using Level 3 inputs from both the Company's PG and CP segments, the Company determined that the goodwill recorded with respect to both segments were fully impaired and the Company recorded an impairment charge of \$1,930.

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## (b) Intangibles

The changes in the carrying amounts of and accumulated amortization of intangible assets from December 31, 2011 to December 31, 2013 were as follows:

	Energy & Security Sonar Solutions segment		GridSense segment		USSSI segment		Power Generation Monitoring segment		Cathodic Protection segment**		Total
	Cost	A.A.*	Cost	A.A.*	Cost	A.A.*	Cost	A.A.*	Cost	A.A.*	
Balance as of December 31, 2011	\$519	\$(274 )	\$2,748	\$(543 )	\$2,565	\$(235 )	\$—	\$—	\$—	\$—	\$4,780
Acquisition of license	—	—	—	—	150	—	—	—	—	—	150
Intangibles recorded in the acquisition of OmniMetrix (see Note 3(a))	—	—	—	—	—	—	4,385	—	1,196	—	5,581
Amortization	—	(81 )	—	(324 )	—	(145 )	—	(309 )	—	(118 )	(977 )
Cumulative translation adjustment	13	(9 )	29	(6 )	—	—	—	—	—	—	27
Balance as of December 31, 2012	532	(364 )	2,777	(873 )	2,715	(380 )	4,385	(309 )	1,196	(118 )	9,561
Amortization	—	(82 )	—	(264 )	—	(150 )	—	(252 )	—	(101 )	(849 )
Impairment	—	—	—	—	—	—	(4,385)	561	(1,196)	219	(4,801 )
Sale of Bushing IQ (see Note 3(d))	—	—	(322 )	263	—	—	—	—	—	—	(59 )
Cumulative translation adjustment	40	(36 )	(184 )	63	—	—	—	—	—	—	(117 )
Balance as of December 31, 2013	\$572	\$(482 )	\$2,271	\$(811 )	\$2,715	\$(530 )	\$—	\$—	\$—	\$—	\$3,735
Weighted average estimated useful lives in years	6		11.1		20						

\* Accumulated amortization

\*\* Results for the Cathodic Protection segment are included in "Other" in Segment Reporting (see Note 21).

The composition of intangibles in each of the Company's segments are as follows:

Segment	Type of Intangible
Energy & Security Sonar Solutions	Naval technologies
GridSense	Software and customer relationships
USSSI	Sensor technologies and license
Power Generation Monitoring	Technologies, customer relationships and non-compete agreements
Cathodic Protection*	Technologies and customer relationships

\* The Cathodic Protection segment is included in "Other" in Segment Reporting (see Note 21).

During the second quarter of 2013, a customer with whom OmniMetrix had a significant on-going relationship at the time of the Company's acquisition of OmniMetrix in February 2012, indicated that they would be disconnecting all of their power generator monitoring units over a period of time. Accordingly, the Company recorded an impairment of the customer relationship intangible asset associated with that customer in its Power Generation Monitoring segment of \$1,116.

As reported in Note 7(b), OmniMetrix's potential customers adoption of its business model has been far slower than anticipated. The goodwill impairment analysis performed also indicated that the acquired intangible assets (technologies, customer

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relationships and non-compete agreements) were also impaired based on Level 3 inputs. Accordingly, in the third quarter of 2013, the Company recorded impairment charges of \$2,708 and \$977 associated with its PG and CP segments, respectively.

Amortization in respect of intangible assets amounted to \$939, \$977 and \$849 for 2011, 2012 and 2013, respectively (such amortization includes amounts associated with discontinued operations of \$407 for 2011).

Amortization expense with respect to intangible assets is estimated to be \$431, \$350, \$350, \$350 and \$350 for each of the years ending December 31, 2014 through 2018.

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## NOTE 13—BANK DEBT AND OTHER DEBT

## (a) Lines of credit

The Company's DSIT subsidiary has lines-of-credit of approximately \$1,152 from two Israeli banks (approximately \$576 at each bank), \$185 of which was being used at December 31, 2013. The lines-of-credit are subject to certain financial covenants. DSIT was in compliance with its financial covenants at December 31, 2013. The line-of-credit at one bank expires in December 2014 and at the second bank the line expires in August 2014. The lines-of-credit are denominated in NIS and bear interest at a weighted average rate of the Israeli prime rate per annum plus 3.04%. The Israeli prime rate as of December 31, 2013 was 2.5% (December 31, 2012, 3.25%).

The Company's GridSense subsidiary has a line-of-credit of \$1,500 (subject to a calculated borrowing base) from a local bank of which \$958 was being used at December 31, 2013. The line-of-credit is subject to certain covenants. GridSense was in compliance with its covenants at December 31, 2013. The line-of-credit expires on June 30, 2014. Advances from the line-of-credit bears interest at a variable annual interest rate equal to the greater of 3.25% above the Prime Rate in effect (3.25% at December 31, 2013) or 6.50%.

The Company's USSI subsidiary has a line-of-credit of \$1,500 from a local bank of which \$1,160 was being used at December 31, 2013. Upon achieving a revenue milestone, the line-of-credit will increase to \$2,000. The line-of-credit is subject to certain financial covenants. USSI was in compliance with its financial covenants at December 31, 2013. The line-of-credit expires on November 20, 2014. Advances from the line-of-credit bears interest at a variable annual interest rate equal to the greater of 1.0% above the Prime Rate in effect (3.25% at December 31, 2013) or 6.50%.

## (b) Bank Debt

In December 2009, the Company's DSIT subsidiary took a loan from an Israeli bank in the amount of \$530. The loan was denominated in NIS and bore interest at the rate of the Israeli prime rate per annum plus 0.9%. The loan balance of \$143 was repaid in full during 2013.

## (c) Other Debt

During 2010, the CEO and a director of the Company's GridSense subsidiary lent GridSense \$50 and \$75, respectively. The loan from the director bears interest at 8% per year while the loan from the CEO bears no interest. During 2010, \$12 was repaid to GridSense's CEO while no repayments were made to the director. During 2011, the remaining \$38 was paid to the CEO and \$65 of principal and \$1 of interest was paid to the director. The remaining \$10 due to the director was paid in 2012.

## (d) Debt summary

	As of December 31,	
	2012	2013
Lines of credit	—	2,303
Bank debt	143	—
Capital lease obligations	10	—
Total debt	153	2,303
Less: Lines-of-credit	—	(2,303)
Less: Current portion of debt	(153)	—
Long-term debt	—	—

With respect to DSIT's line-of-credit (see (a) above), a lien in favor of the Israeli bank was placed on DSIT's assets. In addition, the Company has guaranteed DSIT's line-of-credit.

Both USSI and GridSense have individually granted liens to their respective banks on substantially all of their assets other than intellectual property. They have further promised not to grant a lien on their intellectual property to any other party, nor commit to any such party to abstain from giving a lien. In addition, the Company has guaranteed GridSense's credit line.



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NOTE 14—OTHER CURRENT LIABILITIES

Other current liabilities consist of the following:

	As of December 31,	
	2012	2013
Taxes payable	561	504
Accrued expenses	1,029	2,222
Warranty provision	51	178
Restructuring liabilities	—	137
Other	67	150
	1,708	3,191

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## NOTE 15—ACCRUED SEVERANCE, SEVERANCE ASSETS AND RETIREMENT PLANS

## (a) Accrued Severance and Severance Assets

(i) Israeli labor law and certain employee contracts generally require payment of severance pay upon dismissal of an employee or upon termination of employment in certain other circumstances. The Company has recorded under liability for employee termination benefits the amount that would be paid if all its Israeli employees were dismissed at the balance sheet date, on an undiscounted basis, in accordance with Israeli labor law. This liability is computed based upon the employee's number of years of service and salary components, which in the opinion of management create entitlement to severance pay in accordance with labor agreements in force. The amounts due were determined based on the employees' current salary rates and the number of service years that will be accumulated upon their retirement date. The non-current portion of the liability is reflected on the Company's Consolidated Balance Sheets as Accrued severance while the current portion of the liability is reflected on the Company's Consolidated Balance Sheets is included in Accrued payroll, payroll taxes and social benefits.

The liability is partially funded by sums deposited in dedicated funds in respect of employee termination benefits and is reflected on the Company's Consolidated Balance Sheets as severance assets. For certain Israeli employees, the Company's liability is covered mainly by regular contributions to defined contribution plans. These funded amounts are not reflected in the balance sheets, since they are not under the control and management of the Company.

(ii) Severance pay contributions to dedicated funds amounted to \$322, \$347 and \$434 for the years ended December 31, 2011, 2012 and 2013, respectively.

(iii) The Company expects to contribute approximately \$428 in respect of its severance pay obligations in the year ending December 31, 2014.

(iv) The table below provides a breakdown of the Company's severance liability and severance assets as of December 31, 2012 and 2013.

	As of December 31,	
	2012	2013
Current severance liability	\$—	\$151
Non-current severance liability	4,491	4,973
Total severance liability	\$4,491	\$5,124
Amount of the total severance liability with respect to employees reaching legal retirement age in Israel during the years 2014 - 2023	\$1,777	\$2,071
Current severance assets	\$—	\$137
Non-current severance assets	3,165	3,539
Total severance assets	3,165	3,676
Amount of the total severance assets with respect to employees reaching legal retirement age in Israel during the years 2014 - 2023	\$1,097	\$1,265

The timing of actual payment of the severance liability is uncertain as employees may continue to work beyond the legal retirement age. The liability has not been reduced to reflect any amounts already deposited in dedicated funds

with respect to those employees, nor does it include future deposits.

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(b) Defined Contribution Plans

In the year ended December 31, 2012, the Company began participating in a defined contribution plan for its U.S. salaried employees meeting age and service requirements, which allows participants to make contributions by salary reduction pursuant to Section 401(k) of the Internal Revenue Code. Effective January 1, 2013, the Company contributes 3% of employees' salaries for those meeting the age and service requirements. In 2012, the Company's OmniMetrix subsidiary made such contributions while in 2013, the Company and all of the Company's U.S. entities made contributions to their respective plans. The expense related to the employer portion for the years ending December 31, 2012 and 2013 was \$27 and \$149, respectively.

The Company's GridSense subsidiary in Australia administers a statutory retirement benefit plan. The Company is required to contribute a minimum of 9% of an employee's base salary into a registered superannuation fund. Company contributions were approximately \$146, \$148 and \$92 for the years ended December 31, 2011, 2012 and 2013, respectively.

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## NOTE 16—COMMITMENTS AND CONTINGENCIES

## (a) Leases of Property and Equipment

Office rental and automobile leasing expenses, for 2011, 2012 and 2013, were \$871, \$1,028 and \$1,239 respectively. The Company and its subsidiaries lease office space, cars and equipment under operating lease agreements. Those leases will expire on different dates from 2014 to 2019. Future minimum lease payments on non-cancelable operating leases as of December 31, 2013 are as follows:

Years ending December 31,	
2014	\$978
2015	914
2016	437
2017	150
2018	107
2019 and thereafter	109
	\$2,695

## (b) Guarantees

The Company's DSIT subsidiary provides various performance, advance and tender guarantees as required in the normal course of its operations. As at December 31, 2013, such guarantees totaled approximately \$1,226, all of which is due to expire in 2014. As a security for these guarantees, DSIT has deposited with an Israeli bank \$306 (presented as current restricted deposits on the Company's Consolidated Balance Sheets).

See Note 13(d) with respect to guarantees on the Company's lines of credit.

## (c) Royalties

(i) In April 2012, USSI and Northrop Grumman Guidance and Electronics Company, Inc. signed a license agreement involving several of Northrop Grumman's fiber-optic technology patents. The license agreement calls for an initial payment of \$150 and for a royalty payment of 10% of the net selling price of each unit of licensed products used or sold during the term of the agreement, subject to an annual minimum royalty of \$50 for the first ten years of the license term.

(ii) In June 2012, the Company's DSIT and USSI subsidiaries were awarded a joint \$900 grant from the Israel-United States Binational Industrial Research and Development ("BIRD") Foundation for the joint development of the next generation integrated passive/active threat detection system for underwater site protection. In September 2012, a Cooperation and Project Funding Agreement was signed between the companies and the BIRD Foundation which allowed for the commencement of the funding which is expected to take place over a 24 month period. DSIT anticipates receipt of a majority of the grant based on the expected allocation of project costs between DSIT and USSI. In both 2012 and 2013, the Company received \$180 (\$113 by DSIT and \$67 by USSI) from the BIRD Foundation. Grant amounts from the BIRD Foundation are netted against research and development expense.

Under the terms of the grant agreement between BIRD, DSIT and USSI, both DSIT and USSI will have to repay the grant based on 5% of gross sales of the commercialized product. If repaid within one year of the successful completion of the project, the total repayment amount is equal to the grant amount. The companies are entitled to extend the repayment period to two years in return for total repayment of 113% of the grant amount, to three years in return for total repayment of 125%, to four years in return for total repayment of 138%, or to five years or more in

return for total repayment of 150% of the grant amount. The companies are entitled to prepay the repayment of the grant amount at any time.

(iii) GridSense is required to pay an aggregate royalty of 6% of the sales of a particular product to two employees. The royalty amount for the year ended December 31, 2013 was \$25.

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NOTE 17—EQUITY

(a) General

At the annual meeting of stockholders on June 10, 2010, the Company's stockholders approved an amendment to its Certificate of Incorporation to increase the number of authorized shares of capital stock from 20,000,000 shares to 30,000,000 shares, all of which shall be Common Stock. The increase in authorized shares was done pursuant to a Certificate of Amendment to the Certificate of Incorporation filed with the Secretary of State of the State of Delaware on, and effective as of, June 15, 2010.

At December 31, 2013 the Company had issued and outstanding 22,155,939 shares of its common stock, par value \$0.01 per share. Holders of outstanding common stock are entitled to receive dividends when, as and if declared by the Board and to share ratably in the assets of the Company legally available for distribution in the event of a liquidation, dissolution or winding up of the Company. Holders of common stock do not have subscription, redemption, conversion or other preemptive rights. Holders of the common stock are entitled to elect all of the Directors on the Company's Board. Holders of the common stock do not have cumulative voting rights, meaning that the holders of more than 50% of the common stock can elect all of the Company's Directors. Except as otherwise required by Delaware General Corporation Law, all stockholder action is taken by vote of a majority of shares of common stock present at a meeting of stockholders at which a quorum (a majority of the issued and outstanding shares of common stock) is present in person or by proxy or by written consent pursuant to Delaware law (other than the election of Directors, who are elected by a plurality vote).

The Company is not authorized to issue preferred stock. Accordingly, no preferred stock is issued or outstanding.

(b) Dividend Reinvestment Plan

On August 15, 2012, the Company announced that it was offering its stockholders an opportunity to participate in a Dividend Reinvestment Plan ("DRIP"). The Company offered up to 600,000 shares of its 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. The Company issued the 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 the Company adopted the DRIP) through December 31, 2012, the Company issued 22,734 shares of common stock under the DRIP. During the period from January 2013 through March 2013 (when the Company suspended dividend payments), it issued an additional 18,976 shares of common stock under the DRIP (see Note 17(c)). The DRIP is no longer in effect.

(c) Dividends

In October 2011, the Board of Directors of the Company approved the payment of a quarterly dividend of \$0.035 per share and a 2011 year-end special dividend of \$0.05 per share which was paid in January 2012. The Company suspended this policy after its March 2013 dividend payment and does not presently intend to pay dividends to stockholders in the foreseeable future. Dividends paid since the approval of the quarterly dividend are as follows:

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Period	Regular dividend per share	Special dividend per share	Total dividend paid per share	Dividend paid in cash	Value of dividend paid in shares under the DRIP	Total dividend paid	Value of share discount under the DRIP	Number of shares granted under the DRIP
Fourth quarter 2011	\$0.035	\$—	\$0.035	\$613	\$—	\$613	\$—	—
Year ended December 31, 2011	\$0.035	\$—	\$0.035	\$613	\$—	\$613	\$—	—
First quarter 2012	\$0.035	\$0.05	\$0.085	\$1,496	\$—	\$1,496	\$—	—
Second quarter 2012	\$0.035	\$—	\$0.035	\$627	\$—	\$627	\$—	—
Third quarter 2012	\$0.035	\$—	\$0.035	\$559	\$69	\$628	\$4	8,429
Fourth quarter 2012	\$0.035	\$—	\$0.035	\$526	\$106	\$632	\$6	14,305
Year ended December 31, 2012	\$0.14	\$0.05	\$0.19	\$3,208	\$175	\$3,383	\$10	22,734
First quarter 2013	\$0.035	\$—	\$0.035	\$517	\$117	\$634	\$6	18,976
Year ended December 31, 2013	\$0.035	\$—	\$0.035	\$517	\$117	\$634	\$6	18,976

## (d) Capital Raise

On October, 17, 2013, the Company closed on a public offering of 3,508,771 shares of its common stock at \$2.85 per share for gross proceeds to the Company of \$10,000. The Company received net proceeds of \$9,134 after deducting discounts and commissions to the underwriters and offering expenses. In connection with the Underwriting Agreement, the Company also issued a warrant to the underwriters to acquire 228,070 shares of common stock at \$3.14 per share which shall be exercisable for five years (see Note 17(k)).

On October, 23, 2013, the Company closed on a sale of 526,316 shares of its common stock following the full exercise of the over-allotment option granted to the underwriters at \$2.85 per share for gross proceeds to the Company of \$1,500. The Company received net proceeds of \$1,370 after deducting discounts and commissions to the underwriters and offering expenses. In connection with the over-allotment closing, the Company also issued a warrant to the underwriters to acquire 34,211 shares of common stock at \$3.14 per share which shall be exercisable for five years (see Note 17(k)). In addition to the abovementioned commissions to underwriters and offering expenses, the Company incurred an additional \$129 of other expenses in connection with the two closings.

## (e) Summary Employee Option Information

The Company's stock option plans provide for the grant to officers, directors and other key employees of options to purchase shares of common stock. The purchase price may be paid in cash or at the end of the option term, if the option is "in-the-money", it is automatically exercised "net". In a net exercise of an option, the Company does not require a payment of the exercise price of the option from the optionee, but reduces the number of shares of common stock issued upon the exercise of the option by the smallest number of whole shares that has an aggregate fair market value equal to or in excess of the aggregate exercise price for the option shares covered by the option exercised. Each option is exercisable to one share of the Company's common stock. Most options expire within five to ten years from the date of the grant, and generally vest over three year period from the date of the grant. At the annual meeting of stockholders on September 11, 2012, the Company's stockholders approved an Amendment to the Company's 2006 Stock Incentive Plan to increase the number of available shares by 1,000,000 and an Amendment to the Company's 2006 Stock Incentive Plan for Non-Employee Directors to increase the number of available shares by 200,000. At



December 31, 2013, 1,490,253 options were available for grant under the 2006 Amended and Restated Stock Incentive Plan and 111,667 options were available for grant under the 2006 Director Plan. In 2011 and 2012, all options granted to non-employees were from the 2006 Amended and Restated Stock Incentive Plan which permits grants to non-employees.

In connection with the stock option exercises during the years ended December 31, 2011 , 2012 and 2013, the Company received proceeds of \$211, \$305 and \$0, respectively. The intrinsic value of options exercised in 2011 , 2012 and 2013 were \$707,

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\$1,932 and \$144, respectively. The intrinsic value of options outstanding and options exercisable at December 31, 2013 was \$314 and \$290, respectively.

Option grants to directors and officers for the years ended December 31, 2011, 2012 and 2013 can be found below:

	2011	Weighted	2012	Weighted	2013	Weighted
	Number of	average	Number of	average	Number of	average
	shares	exercise	shares	exercise	shares	exercise
		price		price		price
Options granted to - directors and officers (included above) during the year	141,666	\$4.51	211,898	\$8.02	201,095	* \$5.98
Exercised by directors and officers during the year	159,779	\$2.64	199,697	\$3.12	30,316	\$3.30
Forfeited by directors and officers during the year	351,221	\$3.00	127,803	\$5.75	125,518	\$4.11
Number of options held by directors and officers at year end	1,199,999	\$4.13	1,134,397	\$4.95	1,179,658	\$5.30

\* Includes 25,000 options granted to a director of USSI.

The Company utilized the Black-Scholes option-pricing model to estimate fair value, utilizing the following assumptions for the respective years (all in weighted averages):

	2011	2012	2013	
Risk-free interest rate	1.8	% 1.8	% 1.8	%
Expected term of options, in years	5.5	7.0	6.7	
Expected annual volatility	62	% 58	% 59	%
Expected dividend yield	1.8	% 1.3	% 0.2	%
Determined weighted average grant date fair value per option	\$2.17	\$3.72	\$3.36	

The expected term of the options is the length of time until the expected date of exercising the options. With respect to determining expected exercise behavior, the Company has grouped its option grants into certain groups in order to track exercise behavior and establish historical rates. The Company estimated volatility by considering historical stock volatility over the expected term of the option. The risk-free interest rates are based on the U.S. Treasury yields for a period consistent with the expected term. Up to October 17, 2011, the Company expected no dividends to be paid. On October 17, 2011, the Company approved the payment of a quarterly dividend of \$0.035 per share and a 2011 year-end declaration of a special dividend of \$0.050 per share (see Note 17(c)). The expected dividend yield for 2011, 2012 and the first quarter of 2013 takes into account the quarterly dividend per share on options grants from October 17, 2011. The dividend policy was terminated in March 2013. All options granted subsequent to the termination of the dividend used the assumption that no dividends would be paid. The Company believes that the valuation technique and the approach utilized to develop the underlying assumptions are appropriate in determining the estimated fair value of the Company's stock options granted in the years ended December 31, 2011, 2012 and 2013. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by persons who receive equity awards.

## (f) Non-Employee Options

On February 26, 2013, the Company granted an outside consultant an option for the purchase of 25,000 shares of the Company's common stock. The options vest over one year, have an exercise price of \$6.84 and expire after seven years. The Company used the Black-Scholes valuation method to estimate the fair value of the options granted to the consultant. The Company used a risk free interest rate of 1.3%, an expected life of seven years, an annual volatility of 57% and an annual dividend rate of 2.1% to determine the value the options granted. The Company estimated the fair value of each option granted to be \$3.17. The Company recorded \$41 to selling, general and administrative expense with respect to the option granted to the consultant in the year ended December 31, 2013.

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In addition, on August 20, 2013, the Company granted an outside consultant an option for the purchase of 20,000 shares of the Company's common stock. The options vest 5,000 each quarter, have an exercise price of \$5.91 and expire after seven years. The Company used the Black-Scholes valuation method to estimate the fair value of the options granted to the consultant. The Company used a risk free interest rate of 2.2%, an expected life of seven years, an annual volatility of 57% and no dividends to determine the value the options granted. The Company estimated the fair value of each option granted to be \$3.44. The Company recorded \$24 to selling, general and administrative expense with respect to the option granted to the consultant in the year ended December 31, 2013.

On January 16, 2012, the Company granted an outside consultant an option for the purchase of 25,000 shares of the Company's common stock. The options vest over one year, have an exercise price of \$6.68 and expire after seven years. The Company used the Black-Scholes valuation method to estimate the fair value of the options granted to the consultant. The Company used a risk free interest rate of 1.4%, an expected life of seven years, an annual volatility of 60% and an annual dividend rate of 2.1% to determine the value the options granted. The Company estimated the fair value of each option granted to be \$3.23. The Company recorded \$115 and (\$23) to selling, general and administrative expense with respect to the option granted to the consultant in the years ended December 31, 2012 and 2013, respectively.

In addition, on December 12, 2012, the Company granted an outside consultant an option for the purchase of 5,000 shares of the Company's common stock. The options vested immediately, have an exercise price of \$7.57 and expire after seven years. The Company used the Black-Scholes valuation method to estimate the fair value of the options granted to the consultant. The Company used a risk free interest rate of 1.1%, an expected life of seven years, an annual volatility of 57% and an annual dividend rate of 1.8% to determine the value the options granted. The Company estimated the fair value of each option granted to be \$3.53. The Company recorded \$18 to selling, general and administrative expense with respect to the option granted to the consultant in the year ended December 31, 2012.

On October 4, 2011, the Company granted an outside consultant an option for the purchase of 25,000 shares of the Company's common stock. The options vested over 90 days, have an exercise price of \$5.30 and expire after seven years. The Company used the Black-Scholes valuation method to estimate the fair value of the options granted to the consultant. The Company used a risk free interest rate of 1.3%, an expected life of seven years, an annual volatility of 62% and no expected dividends to determine the value the options granted. The Company estimated the fair value of each option granted to be \$3.23. The Company recorded \$79 to selling, general and administrative expense with respect to the option granted to the consultant in the year ended December 31, 2011.

In the years ended December 31, 2011, 2012 and 2013, the Company included \$87, \$133 and \$42 respectively, of stock-based compensation expense in selling, general and administrative expense in its Consolidated Statements of Operations with respect to options granted to non-employees.

## (g) Summary Employee and Non-Employee Option Information

A summary of the Company's option plans as of December 31, 2011, 2012 and 2013, as well as changes during each of the years then ended, is presented below:

	2011		2012		2013	
	Number of Options (in shares)	Weighted Average Exercise Price	Number of Options (in shares)	Weighted Average Exercise Price	Number of Options (in shares)	Weighted Average Exercise Price
Outstanding at beginning of year	1,817,665	\$3.69	1,388,333	\$4.17	1,311,397	\$5.20
Granted at market price	166,666	4.63	348,898	7.85	246,095	6.06

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Exercised *	(231,831 )	2.62	(252,453 )	3.24	(30,316 )	3.30
Forfeited or expired	(364,167 )	3.00	(173,381 )	5.10	(125,518 )	4.11
Outstanding at end of year	1,388,333	4.17	1,311,397	5.20	1,401,658	5.49
Exercisable at end of year	1,267,915	\$4.08	954,432	\$4.26	1,029,507	\$5.06

\* All shares issued in connection with option exercises were newly issued shares.

The breakdown of option exercises between cashless net exercises and cash exercises is as follows the years ended December 31, 2011 , 2012 and 2013:

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	Shares granted in net exercise of options	Options forfeited in net exercise of options	Total net exercise options	Weighted average exercise price for net exercise options	Options exercised for cash	Weighted average exercise price for options exercised for cash
Year ended December 31, 2011	148,165	304,167	452,332	\$2.69	83,666	\$2.51
Year ended December 31, 2012	101,619	148,381	250,000	\$5.06	150,834	\$2.02
Year ended December 31, 2013	30,316	102,184	132,500	\$3.30	—	—

Summary information regarding the options outstanding and exercisable at December 31, 2013 is as follows:

Range of Exercise Prices	Outstanding		Exercisable		
	Number Outstanding (in shares)	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Number Exercisable (in shares)	Weighted Average Exercise Price
\$2.24 – \$2.56	157,500	0.68	\$2.44	157,500	\$2.44
\$3.51 – \$3.90	150,276	3.58	\$3.68	103,818	\$3.74
\$4.09 – \$5.00	238,333	2.71	\$4.59	229,999	\$4.57
\$5.05 – \$5.91	332,500	4.30	\$5.22	317,500	\$5.19
\$6.31 - \$7.57	359,690	6.16	\$6.92	115,664	\$7.13
\$7.60 - \$11.42	163,359	5.83	\$8.82	105,026	\$8.63
	1,401,658			1,029,507	

Stock-based compensation expense included in the Company's Statements of Operations was:

	Year ended December 31,		
	2011	2012	2013
Cost of sales	\$—	\$—	\$44
Research and development expense	—	81	41
Selling, general and administrative expense*	458	774	1,134
Total stock compensation expense	\$458	\$855	\$1,219

\* Stock compensation expense in 2011 includes \$51 with respect to stock granted to consultants.

In addition to the above amounts, the Company recorded stock compensation expense of \$176 with respect to CoaLogix operations in the period ended August 31, 2011, which is included in the Loss from discontinued operations, net of income taxes.

As at December 31, 2013, the total compensation cost related to non-vested awards not yet recognized was approximately \$705 which the Company expects to recognize over a weighted-average period of approximately 1.4 years.

(h) DSIT Stock Option Plan

In November 2006, the Company adopted a Key Employee Stock Option Plan (the "DSIT Plan") for its DSIT subsidiary to be administrated by a committee of board members of DSIT, currently comprised of the entire board of directors of DSIT. The purpose of the DSIT Plan and associated grants is to provide incentives to key employees of DSIT to further the growth, development and financial success of DSIT.

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A summary status of the DSIT Plan as of December 31, 2011, 2012 and 2013, as well as changes during the years then ended, is presented below:

	2011		2012		2013	
	Number of Options (in shares)	Weighted Average Exercise Price	Number of Options (in shares)	Weighted Average Exercise Price	Number of Options (in shares)	Weighted Average Exercise Price
Outstanding at beginning of year	152,400	\$ 1.18	240,824	\$ 1.67	238,764	\$ 1.69
Granted at fair value	93,054	* \$ 2.45	—	\$ —	6,700	* \$ 2.70
Exercised	—	\$ —	—	\$ —	—	\$ —
Forfeited	(4,630)	\$ 1.09	(2,060)	* \$ 2.51	(1,540)	* \$ 2.70
Outstanding at end of year	240,824	\$ 1.67	238,764	\$ 1.69	243,924	\$ 1.78
Exercisable at end of year	—	\$ —	—	\$ —	101,904	\$ 1.51

\* The weighted average exercise price of these grants and forfeitures are NIS 9.38 translated to US dollars using the year end exchange rates (NIS 3.83, NIS 3.73 and NIS 3.47 for the years ended December 31, 2011, 2012 and 2013, respectively)

In 2011, DSIT granted options to purchase 93,054 of its ordinary shares to senior management and employees of DSIT at an exercise price of NIS 9.38 per share and exercisable for a period of seven years. These options originally vested and became exercisable only upon the occurrence of an initial public offering of DSIT or a merger, acquisition, reorganization, consolidation or similar transaction involving DSIT (see below). In addition, DSIT also extended the expiration date of 147,770 previously granted options from December 31, 2013 to August 10, 2018. No other option terms were modified. In 2013, DSIT granted options to purchase 6,700 of its ordinary shares to an employee of DSIT at an exercise price of NIS 9.38 per share and exercisable for a period of approximately 5.1 years.

On July 1, 2013, DSIT modified the vesting terms of all options granted 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 or upon the grantee achieving 25 years of service with DSIT. As a result of the modified vesting terms, DSIT recorded stock-based compensation expense of \$160 (\$44 in Cost of sales and \$116 is Selling, general and administrative expense) during the year ended December 31, 2013.

Summary information regarding the options under the Plan outstanding and exercisable at December 31, 2013 is as follows:

Range of Exercise Prices	Outstanding		Exercisable		
	Number Outstanding  (in shares)	Weighted Average Remaining Contractual Life  (in years)	Weighted Average Exercise Price	Number Exercisable  (in shares)	Weighted Average Exercise Price
\$1.05 – \$1.26	147,770	4.6	\$ 1.18	81,068	\$ 1.20
\$2.70	96,154	4.6	\$ 2.70	20,836	\$ 2.70
	243,924		\$ 1.78	101,904	\$ 1.51

If all the options in the DSIT Plan are exercised, the Company's holdings in DSIT will be diluted from 88.3% to approximately 77.4% on an as converted basis (see Note 3(d)).



(i) DSIT Warrants

In August 2012, the warrant to purchase 10.0% of DSIT issued in August 2005 to the purchaser of the Company's former dsIT Technologies, Ltd. subsidiary expired.

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## (j) USSI Stock Option Plan

In connection with the USSI Purchase Agreement, the Company established a 2012 Stock Plan (the "USSI 2012 Stock Option Plan" or the "Plan") under which key employees, directors and consultants of USSI may receive options to purchase up to an aggregate of 1,180,000 shares of USSI Common Stock on such terms as the Plan provides and as determined by USSI's board of directors or by such committee designated by USSI's board to administer the Plan, if any. USSI granted options to purchase 637,375 and 50,000 of its common shares in 2012 and 2013, respectively, to senior management, employees, outside directors and a consultant of USSI under the Plan. 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. Upon exercise of all the options in the Plan, the Company's holdings in USSI will be diluted from 95.7% (on an as converted basis) to approximately 88.4% (see Note 3(b)). During the years ended December 31, 2012 and 2013, \$323 and \$133, respectively, was recorded as stock compensation expense with respect to the abovementioned options (\$80 and \$41 in Research and development expenses, net of credits and \$243 and \$92 in Selling, general and administrative expenses in 2012 and 2013, respectively). The purposes of the Plan for our USSI subsidiary are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to service providers and to promote the success of the business of USSI.

A summary status of the USSI 2012 Stock Option Plan as of December 31, 2012 and 2013, as well as changes during the years then ended, is presented below :

	2012			2013		
	Number of Options  (in shares)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life  (in years)	Number of Options  (in shares)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life  (in years)
Outstanding at beginning of year	—	\$—		632,375	\$1.72	
Granted at fair value	637,375	1.72		50,000	1.72	
Exercised	—	—		—	—	
Forfeited	(5,000 )	1.72		(46,000 )	1.72	
Outstanding at end of year	632,375	1.72	6.7	636,375	1.72	5.7
Exercisable at end of year	322,337	\$1.72	6.7	460,619	\$1.72	5.7

## (k) Warrants

The Company has issued warrants at exercise prices equal to or greater than market value of the Company's common stock at the date of issuance. A summary of warrant activity follows:

	2011		2012		2013	
	Number of shares underlying warrants	Weighted Average Exercise Price	Number of shares underlying warrants	Weighted Average Exercise Price	Number of shares underlying warrants	Weighted Average Exercise Price
Outstanding at beginning of year	313,806	\$4.29	313,806	\$4.29	28,750	\$3.68
Granted	—	—	—	—	262,281	3.14
Exercised	—	—	(269,808 )	4.35	(5,750 )	3.68

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Forfeited or expired	—	—	(15,248 )	3.68	—	—
Outstanding and exercisable at end of year	313,806	\$4.29	28,750	\$3.68	285,281	\$3.18

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The warrants outstanding at December 31, 2013 have a weighted average remaining contractual life of 4.6 years .

The 262,281 warrants that were granted in connection with the October 2013 Capital Raises (see Note 17(d)) are exercisable for shares of the Company's Common Stock for five years at an exercise price of \$3.14 per share. The Company allocated \$482 to the value of the warrants based on a Black Scholes calculation using a five year expected life, an annual volatility of 62%, a discount rate of 1.4% and no dividends. The value allocated to the warrants was offset against additional paid-in-capital.

During the years ended December 31, 2012 and 2013, the Company received proceeds of \$1,050 and \$0 from the exercise of warrants. No warrants were exercised in 2011. During the year ended December 31, 2012, 36,502 warrants were exercised and 15,248 warrants were forfeited in connection with the cashless net exercise of 51,750 warrants at a weighted average exercise price of \$3.68 per share. During the year ended December 31, 2013, 2,954 warrants were exercised and 2,796 warrants were forfeited in connection with the cashless net exercise of 5,750 warrants at a weighted average exercise price of \$3.68 per share.

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NOTE 18—FINANCE INCOME (EXPENSE), NET

Finance income (expense), net consists of the following:

	Year ended December 31,		
	2011	2012	2013
Interest income	\$39	\$146	\$48
Interest expense	(198	) (104	) (108
Exchange gain, net	133	15	182
	\$(26	) \$57	\$122

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## NOTE 19—INCOME TAXES

(a) Composition of loss from continuing operations before income taxes is as follows:

	Year ended December 31,		
	2011	2012	2013
Domestic	\$ (7,053 )	\$ (20,167 )	\$ (29,357 )
Foreign	(515 )	(524 )	(1,476 )
	\$ (7,568 )	\$ (20,691 )	\$ (30,833 )

Income tax expense (benefit) consists of the following:

	Year ended December 31,		
	2011	2012	2013
Current:			
Federal	\$ 1,800	\$ (1,802 )	\$ —
State and local	2	2	2
Foreign	88	676	—
	1,890	(1,124 )	2
Deferred:			
Federal	(14,571 )	(1,434 )	—
State and local	—	—	—
Foreign	(86 )	(398 )	154
	(14,657 )	(1,832 )	154
Total income tax expense (benefit)	\$ (12,767 )	\$ (2,956 )	\$ 156

## (b) Effective Income Tax Rates

Set forth below is reconciliation between the federal tax rate and the Company's effective income tax rates with respect to continuing operations:

	Year ended December 31,			
	2011	2012	2013	
Statutory Federal rates	34	% 34	% 34	%
Increase (decrease) in income tax rate resulting from:				
Tax on foreign activities	2	2	2	
Other, net (primarily permanent differences)	(2 )	(1 )	(2 )	)
Valuation allowance	135	(21 )	(35 )	)
Effective income tax rates	169	% 14	% (1	)%

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## (c) Analysis of Deferred Tax Assets and (Liabilities)

	As of December 31,	
	2012	2013
Deferred tax assets consist of the following:		
Employee benefits and deferred compensation	\$1,386	\$1,981
Asset impairments	—	2,693
Other temporary differences	750	1,301
Net operating loss carryforwards	6,972	13,746
	9,108	19,721
Valuation allowance	(8,413	) (19,132
Net deferred tax assets	695	589

Valuation allowances relate principally net operating loss carryforwards related to the Company's consolidated tax losses as well as state tax losses related the Company's USSI, GridSense and OmniMetrix subsidiaries and book-tax differences related asset impairments and stock compensation expense of the Company. During the year ended December 31, 2012, the valuation allowance increased by \$4,570. During the year ended December 31, 2013, the valuation allowance increased by \$10,719. The increase in the valuation allowance in both 2012 and 2013 was primarily attributable to the net losses recorded in the Company's U.S. operations.

Deferred tax assets relate to primarily to employee benefits and other temporary differences at the Company's DSIT subsidiary.

## (d) Summary of Tax Loss Carryforwards

As of December 31, 2013, the Company had various net operating loss carryforwards expiring as follows:

Expiration	Federal*	State	Foreign
2021-2033	\$31,667	\$35,239	
Unlimited	—	—	3,000
Total	\$31,667	\$35,239	\$3,000

\* The utilization of a portion of these net operating loss carryforwards is limited to a total of approximately \$259 per year due to limits on utilizing the acquired net operating loss carryforwards under Internal Revenue Service regulations following a change in control.

## (e) Taxation in the United States

On October 22, 2004, The American Jobs Creation Act (the "Act") was signed into law. The Act includes a deduction of 85% of certain foreign earnings that are repatriated, as defined in the Act. The Company's foreign earnings are derived from the Company's Israeli and Australian subsidiaries. Due to Israeli tax and company law constraints and DSIT's own cash and finance needs as well as GridSense's cash needs, the Company does not expect any foreign earnings to be repatriated to the United States in the near future.

As a holding company without other business activity in Delaware, the Company is exempt from Delaware state income tax. Thus, the Company's statutory income tax rate on domestic earnings is the federal rate of 34%.

Following the acquisition of OmniMetrix in February 2012 (see Note 3(a), the Company began consolidating their results for tax purposes. As a result of the increased holdings in USSI during 2011 (see Note 3(b)), the Company began consolidating the results of USSI for tax purposes beginning in February 2011.

(f) Taxation in Israel

The income of the Company's Israeli subsidiaries are taxed at regular rates. Tax rates relevant to the Company's Israeli subsidiaries in the years 2011 - 2013 are as follows:

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- 2011 - 24%
- 2012 - 25%
- 2013 - 25%

On August 5, 2013, the Law for Changes in National Priorities (Legislative Amendments for Achieving Budget Objectives in the Years 2013 and 2014) - 2013 was published in the Official Gazette, by which, the corporate tax rate would be raised by 1.5% to a rate of 26.5% as from 2014.

## Taxation in Australia

The income of the Company's GridSense subsidiaries is taxed on their worldwide taxable income at the general corporate tax rate which currently stands at 30%.

## (h)Uncertain Tax Positions (UTP)

As of December 31, 2012 and 2013, \$0 interest or penalties were accrued on the balance sheet related to UTP.

Following is a reconciliation of the total amounts of the Company's unrecognized tax benefits for the period from January 1, 2012 to December 31, 2013:

	2012	2013
Balance at January 1	\$73	\$—
Increases (decreases) in unrecognized tax benefits and associated interest and penalties as a result of tax positions made during the prior period	—	—
Decreases in unrecognized tax benefits and associated interest and penalties as a result of tax positions taken during the current period	(73	) —
Balance at December 31	\$—	\$—

The Company is subject to U.S. Federal and state income tax, Australian income tax and Israeli income tax. As of January 1, 2014, the Company is no longer subject to examination by U.S. Federal taxing authorities for years before 2010, for years before 2009 for state income taxes, before 2009 for Israeli income taxes and before 2010 for Australian taxes.

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NOTE 20—RELATED PARTY BALANCES AND TRANSACTIONS

(a) The Company paid consulting and other fees to directors of \$249, \$541 and \$266 for each of the years ended December 31, 2011, 2012 and 2013, respectively, all of which are included in selling, general and administrative expenses.

(b) The Company paid legal fees for services rendered and out-of-pocket disbursements to a firm in which a principal is the son-in-law of one of the Company's former Directors, of approximately \$309, \$264 and \$199 for the years ended December 31, 2011, 2012 and 2013, respectively. No amounts were owed to this firm as of December 31, 2012 and 2013, respectively.

(c) Effective January 2013, OmniMetrix hired Chris Gropp as its Chief Information Officer, at an annual salary of \$185 plus customary benefits afforded other OmniMetrix senior employees. Mr. Gropp also received a signing bonus of \$25. Mr. Gropp was selected for his position by OmniMetrix's President and CEO based upon his qualifications and interview results following a competitive recruitment process. His appointment was also ratified in February, 2013 by the OmniMetrix Board of Managers. Mr. Gropp is the brother-in-law of the Company's CEO, John Moore.

See Note 17(e) for information related to options and stock awards to directors and officers.

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NOTE 21—SEGMENT REPORTING AND GEOGRAPHIC INFORMATION

(a) General Information

As of December 31, 2013, the Company's operations are based upon four operating segments:

(1) 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.

(2) 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.

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

(4) Power Generation (PG) Monitoring. These products and services are provided by our OmniMetrix™, LLC ("OmniMetrix") subsidiary, acquired in February 2012. OmniMetrix's PG products and services deliver critical, real-time machine information to customers and provide remote diagnostics that give users real-time visibility of their equipment. As these activities were acquired in February 2012 (see Note 3(a)), there are no comparative results reported for these activities for the year ended 2011.

During 2013, 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 Cathodic Protection activities in our OmniMetrix subsidiary, that do not meet the quantitative thresholds and which may be combined for reporting under applicable accounting principles.

The Company's reportable segments are strategic business units, offering different products and services and are managed separately as each business requires different technology and marketing strategies. Similar operating segments are aggregated into one reportable segment.

(b) Information about Profit or Loss and Assets

The accounting policies of all the segments are those described in the summary of significant accounting policies. The Company evaluates performance based on net income or loss before taxes.

The Company does not systematically allocate assets to the divisions of the subsidiaries constituting its consolidated group, unless the division constitutes a significant operation. Accordingly, where a division of a subsidiary constitutes a segment that does not meet the quantitative thresholds of applicable accounting principles, depreciation expense is recorded against the operations of such segment, without allocating the related depreciable assets to that segment. However, where a division of a subsidiary constitutes a segment that does meet the quantitative thresholds, related depreciable assets, along with other identifiable assets, are allocated to such division.



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The following tables represent segmented data for the years ended December 31, 2013, 2012 and 2011:

	Energy & Security Sonar Solutions	GridSense	Oil & Gas Sensor Systems	Power Generation Monitoring	Other	Total
Year ended December 31, 2013:						
Revenues from external customers	11,815	5,026	1,468	1,671	1,776	21,756
Intersegment revenues	—	—	39	—	—	39
Segment gross profit (loss)	3,817	1,828	(2,347)	) 867	991	5,156
Impairment of goodwill and intangibles	—	—	—	5,341	1,390	6,731
Restructuring and related charges	—	594	—	—	—	594
Depreciation and amortization	247	342	385	252	128	1,354
Stock compensation expense	148	—	133	—	12	293
Segment net loss before income taxes	(243)	) (4,336)	) (9,646)	) (7,011)	) (1,266)	) (22,502)
Segment assets	11,219	6,400	8,081	2,300	870	28,870
Expenditures for segment assets	333	14	1,998	—	—	2,345
Year ended December 31, 2012:						
Revenues from external customers	\$ 12,229	\$ 3,662	\$ 1,464	\$ 502	\$ 1,562	\$ 19,419
Intersegment revenues	—	—	—	—	—	—
Segment gross profit (loss)	4,465	968	(1,021)	) 129	662	5,203
Depreciation and amortization	226	390	322	309	145	1,392
Stock compensation expense	—	—	323	—	—	323
Segment net income (loss) before income taxes	809	(5,378)	) (8,427)	) (1,033)	) (62)	) (14,091)
Segment assets	9,512	8,382	7,759	7,495	2,442	35,590
Expenditures for segment assets	144	140	224	—	29	537
Year ended December 31, 2011:						
Revenues from external customers	\$ 9,104	\$ 7,119	\$ 1,316	\$ —	\$ 1,389	\$ 18,928
Intersegment revenues	—	—	—	—	—	—
Segment gross profit (loss)	3,019	3,327	(98)	) —	665	6,913
Depreciation and amortization	220	375	224	—	28	847
Stock compensation expense	—	—	—	—	—	—
Segment net income (loss) before income taxes	(244)	) (1,448)	) (2,775)	) —	298	(4,169)
Segment assets	7,871	7,757	5,515	—	482	21,625
Expenditures for segment assets	103	74	276	—	22	475

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(c) The following tables represent a reconciliation of the segment data to consolidated statement of operations and balance sheet data for the years ended and as of December 31, 2011, 2012 and 2013:

	Year ended December 31,		
	2011	2012	2013
Revenues:			
Total consolidated revenues for reportable segments	\$17,539	\$17,857	\$19,980
Other operational segment revenues	1,389	1,562	1,776
Total consolidated revenues	\$18,928	\$19,419	\$21,756
	Year ended December 31,		
	2011	2012	2013
Income (loss):			
Total net loss before income taxes for reportable segments	\$(4,467 )	\$(14,029 )	\$(21,236 )
Other operational segment net income (loss) before income taxes	298	(62 )	(1,266 )
Total segment net income (loss) before income taxes	(4,169 )	(14,091 )	(22,502 )
Unallocated net cost of corporate headquarters*	(3,891 )	(5,114 )	(5,016 )
Unallocated net cost of DSIT headquarters	—	(14 )	(53 )
Unallocated net cost of OmniMetrix headquarters	—	(1,472 )	(3,262 )
Gain on sale of HangXing (see Note 6)	492	—	—
Consolidated net loss before tax	\$(7,568 )	\$(20,691 )	\$(30,833 )

\* Includes \$458, \$532, and \$926 of stock compensation expense for the years ending December 31, 2011, 2012 and 2013, respectively.

	As of December 31,		
	2011	2012	2013
Assets:			
Total assets for reportable segments	\$21,625	\$35,590	\$28,870
Unallocated assets of DSIT headquarters	6,181	6,156	5,519
Unallocated assets of OmniMetrix headquarters	—	1,072	640
Assets of corporate headquarters *	57,999	24,518	15,927
Total consolidated assets	\$85,805	\$67,336	\$50,956

\* In 2013, includes \$15,829 of unrestricted cash. In 2012, includes \$22,676 of unrestricted cash. In 2011, includes \$33,666 of unrestricted cash, \$18,000 of short-term deposits and \$5,961 of funds held in escrow.

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Other Significant Items	Segment Totals	Adjustments	Consolidated Totals
Year ended December 31, 2013			
Depreciation and amortization	\$1,354	\$102	* \$1,456
Stock compensation expense	293	926	1,219
Expenditures for assets	2,345	1,121	** 3,466
Year ended December 31, 2012			
Depreciation and amortization	\$1,392	\$14	* \$1,406
Stock compensation expense	323	532	855
Expenditures for assets	537	147	** 684
Year ended December 31, 2011			
Depreciation and amortization	\$847	\$4	\$851
Stock compensation expense	—	458	458
Expenditures for assets	475	27	502

\* Includes \$100 and \$11 of unallocated depreciation and amortization with respect to OmniMetrix for the years ended December 31, 2013 and 2012.

\*\* Includes \$985 and \$106 of unallocated expenditures for assets with respect to OmniMetrix for the years ended December 31, 2013 and 2012.

Other reconciling items are primarily corporate headquarters data, which are not included in the segment information. None of the other adjustments are significant.

	December 31,		
	2011	2012	2013
Revenues based on location of customer:			
United States	\$4,856	\$3,344	\$5,866
Israel	4,268	3,773	8,164
Asia	6,280	10,010	5,908
Oceania	3,190	1,734	1,589
Other	334	558	229
	\$18,928	\$19,419	\$21,756
	December 31,		
	2011	2012	2013
Long-lived assets located in the following countries:			
United States	\$350	\$602	\$1,850
Israel	235	282	582
Australia	50	43	—
	\$635	\$927	\$2,432

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## (d) Revenues from Major Customers

Customer	Segment	Consolidated Revenues		2012		2013			
		2011	% of	Revenues	% of	Revenues	% of	Revenues	% of
		Revenues	Total		Total		Total		Total
			Revenues		Revenues		Revenues		Revenues
A	Energy & Security Sonar Solutions	89	—	% 309	2	% 2,948	14	%	
B	Energy & Security Sonar Solutions	2,094	11	% 1,504	8	% 361	2	%	
C	Energy & Security Sonar Solutions	2,155	11	% 7,434	38	% 2,336	11	%	
D	GridSense	2,436	13	% 187	1	% 87	—	%	

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NOTE 22—FINANCIAL INSTRUMENTS

Fair values of financial instruments included in current assets and current liabilities are estimated to approximate their book values, due to the short maturity of such instruments.

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## NOTE 23—FAIR VALUE MEASUREMENTS

Financial items measured at fair value are classified in the table below in accordance with the hierarchy established in applicable accounting principles.

	As at December 31, 2013			Total
	Level 1	Level 2	Level 3	
Restricted deposits – current and non-current	\$ 306	—	—	\$ 306
Derivative liabilities	—	—	—	—
Total	\$ 306	\$ —	\$ —	\$ 306

	As at December 31, 2012			Total
	Level 1	Level 2	Level 3	
Restricted deposits – current and non-current	\$ 814	\$ —	\$ —	\$ 814
Derivative liabilities	112	—	—	112
Total	\$ 926	\$ —	\$ —	\$ 926

Derivative liabilities are forward contracts for the purchase of NIS for which market prices are readily available. Unrealized gains or losses from forward contracts are recorded in Finance income (expense), net.

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## NOTE 24—SUMMARY QUARTERLY FINANCIAL DATA (Unaudited)

The following table sets forth certain of the Company's unaudited quarterly consolidated financial information for the years ended December 31, 2012 and 2013.

	2012				2013			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(in thousands, except per share amounts)							
Revenues	\$4,183	\$5,727	\$4,713	\$4,796	\$5,716	\$5,233	\$4,982	\$5,825
Cost of sales	2,983	4,241	3,225	3,767	3,591	3,961	3,923	5,125
Gross profit	1,200	1,486	1,488	1,029	2,125	1,272	1,059	700
Research and development expenses, net	1,318	1,699	1,754	1,819	2,001	2,116	2,219	1,839
Selling, general and administrative expenses	4,229	4,390	5,272	5,470	5,256	4,970	4,995	4,595
Impairment of goodwill and intangibles	—	—	—	—	—	1,116	5,615	—
Restructuring and related charges	—	—	—	—	—	594	772	23
Operating loss	(4,347 )	(4,603 )	(5,538 )	(6,260 )	(5,132 )	(7,524 )	(12,542 )	(5,757 )
Finance income (expense), net	(23 )	130	(160 )	110	14	75	(9 )	42
Income (loss) before taxes on income	(4,370 )	(4,473 )	(5,698 )	(6,150 )	(5,118 )	(7,449 )	(12,551 )	(5,715 )
Income tax benefit (expense)	(75 )	1,064	1,487	480	(69 )	(16 )	(143 )	72
Net income (loss)	(4,445 )	(3,409 )	(4,211 )	(5,670 )	(5,187 )	(7,465 )	(12,694 )	(5,643 )
Net (income) loss attributable to non-controlling interests	256	205	276	287	212	291	382	390
Net income (loss) attributable to Acorn Energy, Inc	\$(4,189)	\$(3,204)	\$(3,935)	\$(5,383)	\$(4,975)	\$(7,174)	\$(12,312)	\$(5,253)
Basic and diluted net loss per share attributable to Acorn Energy, Inc. shareholders:								
Total attributable to Acorn Energy, Inc. shareholders.	\$(0.24 )	\$(0.18 )	\$(0.22 )	\$(0.30 )	\$(0.28 )	\$(0.40 )	\$(0.68 )	\$(0.24 )
Weighted average number of shares outstanding attributable to Acorn Energy, Inc. – basic and diluted	17,680	17,912	17,934	18,038	18,077	18,091	18,091	21,450