ACORN ENERGY, INC.
Form 10-K
March 18, 2013
Table of Contents

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, 2012 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 x

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 x

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

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 ¨

Table of Contents

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. ¨

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 x 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 x

As of last day of the second fiscal quarter of 2012, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately $139.3 million based on the closing sale price on that date as reported on the NASDAQ Global Market. As of March 7, 2013 there were 18,071,560 shares of Common Stock, $0.01 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

None.

TABLE OF CONTENTS

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

AquaShield™ and PointShield™ are trademarks of our DSIT Solutions Ltd. subsidiary. GridSense™, HighV™, Grid InSite™, DemandIQ™, PowerMonic™, Line IQ®, Transformer IQ®, Bushing IQ®, and DistributionIQ® are trademarks of our GridSense subsidiaries. LazerLok™ is a trademark of our US Seismic Systems, Inc. subsidiary. SmartService™, OmniView™, OmniLink™, and OmniScope™ are trademarks of our OmniMetrix subsidiary.

Table of Contents

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 help their customers achieve greater productivity, reliability, security and efficiency-factors which can lead to greater profitability. Specifically, DSIT provides security solutions from underwater threats to marine based energy assets; GridSense provides monitoring for all critical points along the electricity delivery system; OmniMetrix remotely monitors emergency back-up power generation systems to increase their reliability; and USSI supplies fiber optic sensing solutions to increase oil and gas production and lower costs.

Through our majority or wholly-owned operating subsidiaries we provided the following services and products in 2012:

· 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.

· 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 worldwide.

During 2012, 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 activities in our OmniMetrix subsidiary. As OmniMetrix's activities were acquired in February 2012, there are no comparative results reported for these activities for periods prior to 2012.

Table of Contents

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. The financial results of OmniMetrix are included in our consolidated financial statements effective February 15, 2012. Accordingly, there are no comparative results reported for these activities for the periods ended December 31, 2010 and 2011.

	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)

	Year ended December 31, 2011					
	DSIT	OmniMetrix	GridSense	USSI	Acorn	Total
Revenues	$10,493	$—	$7,119	$1,316	$—	$18,928
Cost of Sales	6,809	—	3,792	1,414	—	12,015
Gross profit	3,684	—	3,327	(98)	—	6,913
Gross profit margin	35%		47%	(7)%		37%
R& D expenses, net of credits	568	—	1,370	1,057	—	2,995
Selling, general and administrative expenses	3,061	—	3,367	1,619	3,905	11,952
Operating income (loss)	$55	$—	$(1,410)	$(2,774)	$(3,905)	$(8,034)

	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
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)

	Three months ended December 31, 2011					
	DSIT	OmniMetrix	GridSense	USSI	Acorn	Total
Revenues	$3,807	$—	$2,435	$433	$—	$6,675
Cost of Sales	2,323	—	1,341	425	—	4,089
Gross profit	1,484	—	1,094	8	—	2,586
Gross profit margin	39%		45%	2%		39%
R& D expenses, net of credits	140	—	845	423	—	1,408
Selling, general and administrative expenses	686	—	802	461	1,394	3,343
Operating income (loss)	$658	$—	$(553)	$(876)	$(1,394)	$(2,165)

* Following further analysis of the recognition of certain revenues and costs of OmniMetrix, we have reclassified first, second and third quarter revenues and costs of sales to defer hardware revenues and cost of sales in accordance with the accounting for multiple elements and recognizing those costs over expected customer life rather than at the delivery of the monitoring unit.

Table of Contents

ENERGY & SECURITY SONAR SOLUTIONS – DSIT SOLUTIONS LTD.

DSIT Solutions Ltd., which is 84% owned by the Company, 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. During 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.

· 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 Acoustic Range ("MAR") – The MAR 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 $900,000 grant from the Israel-U.S. Binational Industrial Research and Development Foundation (“BIRD Foundation”). The grant was awarded for the joint development of the next generation integrated passive/active threat detection system for underwater site protection. The BIRD Foundation provides funding money for projects involving joint innovation and development between American and Israeli companies. The integrated passive/active underwater security system (PAUSS) that is the subject of this grant is potentially the most comprehensive system of its kind available. The advantages of combining the world's best passive and active sensors may lead to an underwater system that provides extremely efficient and effective coverage of all areas of a site. The combined system will be designed to provide a much greater probability

Table of Contents

of threat detection with a lower rate of false alarms for all types of threats. Work on the PAUSS project has begun, but continued development will require USSI to obtain certain export licenses from either the US Department of Commerce or State Department and whether such licenses can be obtained on a timely basis or terms cannot be determined.

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 systems for airborne and missile systems. DSIT is providing development and production services of hardware and embedded signal processing software with high quality control standards.

DSIT's other operations include IT 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 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, 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 currently negotiating with USSI a transfer of technology agreement whereby DSIT would receive from USSI an exclusive world-wide license to use USSI technology to provide systems, devices, installations and methods for monitoring ground sites, facilities, locations and perimeters and against land-based security threats for government and non-government customers for defense, security or military and safety applications. DSIT also 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. Whether the agreement with USSI can be concluded on acceptable terms and whether any necessary export licenses can be obtained in connection cannot be determined at this time. Further, we cannot determine the likelihood that we will be able to successfully commercialize products from these efforts.

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 (81% in 2012, 68% in 2011, 55% in 2010, 43% in 2009 and 15% in 2008). We expect this segment’s non-Israel based revenues to drop off in 2013 to levels seen in 2010 and 2011. This is due to the inclusion in 2012's revenues of $7.4 million from a $12.3 million order received in late 2011 for AquaShield™ and PointShield™ DDS systems with an Asian customer. DSIT continues to invest considerable efforts to penetrate European,

Table of Contents

Asian, South American, U.S. and other 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, Eastern Europe and the U.S.

We believe that in 2013, we will see an increased flow of orders for our AquaShield™ DDS and PointShield™ DDS systems generated by customers realizing the potential threat to their coastal and offshore critical facilities as well as vessels, canals and water intakes. DSIT is currently in discussions with numerous potential energy, commercial and governmental customers who have shown interest in the company's underwater security systems.

In 2012, two customers accounted for approximately 78% of segment revenues (61% and 17%). These two customers, The State Border Service, Republic of Azerbaijan ("SBS") and the Indian Navy accounted for 38% and 11% , respectively ($7.4 million and $2.0 million) of Acorn's consolidated revenues in 2012. One of these customers also represented approximately 37% (approximately $2.0 million) of Acorn's consolidated accounts receivable at December 31, 2012 which was received in the first quarter of 2013. 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 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.

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 2013.

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 19,000 square feet of space in the Tel Aviv metropolitan area under a lease that expired in August 2012. DSIT is currently continuing in these premises on a month-to-month basis and negotiating a lease extension with additional space for expanded production facilities. We believe that DSIT's premises will be sufficient to handle the anticipated increase in sales for the near future.

Table of Contents

SMART GRID DISTRIBUTION AUTOMATION – GridSense

In accordance with applicable accounting standards, we began consolidating the results of GridSense beginning May 12, 2010, the date we acquired the outstanding GridSense shares not previously owned by us. Prior to that date we accounted for our GridSense investment using the equity method.

GridSense develops and markets remote monitoring systems to electric utilities and industrial facilities worldwide. These systems, used in a wide range of utility applications including outage management, power quality monitoring, system planning, trouble shooting and proactive maintenance, and condition monitoring, provide transmission and distribution network operators with the intelligence to better and more efficiently conduct grid operations.

Due to increasing stresses on these systems, old and aging infrastructure and greater demands for power quality and reliability of supply, utilities are striving to modernize their electrical infrastructures with "SmartGrid" initiatives. Cost-effective and easily deployable, GridSense solutions provide critical components of the present and future grid. 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 has developed a range of offerings that addresses all the critical points of the electricity delivery system, including distribution and transmission lines, substations and transformers, and the point of electricity consumption.

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.

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, and power transformer bushings. GridSense also provides solutions for underground line monitoring, power quality analysis, and close-up inspection of energized, high-voltage assets. With GridSense solutions, utilities can minimize inconveniences and productivity losses for their consumers, optimize asset utilization, and reduce the costs of identifying and rectifying network outages and disturbances. GridSense offerings include:

- Transformer IQ® - 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.
- Bushing IQ® - The Bushing IQ® is a continuous online system for monitoring power factor in high voltage capacitive bushings in all types of weather.
- 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.

GridSense products under current development include:

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

6

Table of Contents

Customers and Markets

Strategically important markets include North America, South America, China and South Africa. Having invested heavily in an organization to support its customers in the U.S. and Canada, GridSense has grown its customer base from just a handful a few years ago to nearly 400 utility companies ranging from municipal utilities and cooperatives to large investor owned utilities. The penetration of this market in the relatively short time since GridSense established operations in the US has been made possible with the establishment of a manufacturer's representative network covering the region. Given the size of the North American utility market, sales from this territory are expected to grow, and we believe North America will eventually represent the largest portion of overall GridSense sales in the future. Unlike North America which is characterized by a large number of electricity suppliers over a vast geographic territory, the opportunities in South America, China and South Africa are focused on a small number of large electric utility operators. We are currently pursuing deployment opportunities in these aforementioned markets having already established relationships with local utilities and currently supporting pilots or evaluation trials.

GridSense has activities in other international markets but continues a measured and disciplined approach toward expansion. Validation of the market opportunity takes place before actual deployment of resources. GridSense mitigates its operational and financial risks by aligning itself with resellers that exhibit technical competency, established customer relationships and on-the-ground resources to support our offerings.

Within Australia where GridSense has an established sales team and support infrastructure, GridSense sells the PowerMonic™, Line IQ®, Transformer IQ® and Bushing IQ® range of products directly to electric utilities and industrial customers. Outside of Australia, GridSense utilizes a network of resellers, including rental companies, electrical engineering firms, distributors, independent manufacturers' representatives and agents. In North America, GridSense employs three sales professionals. 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. During 2012, GridSense entered into new pilot programs with 38 new customers. Currently, GridSense has over 45 ongoing pilot programs. Pilot programs consist of deployment of one or more products on a test basis. Such pilot programs generally last between three and eighteen months. We have no assurance that such pilot programs will ultimately result in large scale roll-out programs.

In 2012, GridSense also commercialized several new products including the LineIQ®60, LineIQ®35, HighV™Camera, DistributionIQ® and Grid InSite.™

In 2012, one customer (in Australia) accounted for approximately 15% ($0.5 million) of GridSense's total revenues (31% of Australian operations based revenues). Three customers accounted for approximately 30% ($0.6 million of GridSense's U.S. operations based revenues ($1.9 million)). The balance of GridSense's revenues in 2012 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 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 three Australian patents and three U.S. patents, and has one patent pending in both Australia and the U.S. In addition, GridSense owns three patents in Canada, two in Europe, two in South Africa and one in Great Britain. Some of GridSense's know-how and technology may not be patentable. To protect its rights, GridSense generally requires

Table of Contents

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 Sydney, Australia and Sacramento, CA. The leased facility in Sydney covers 8,100 square feet while the leased facility in Sacramento has approximately 11,900 square feet. 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.

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.

OmniMetrix develops and markets wireless remote monitoring systems and services for two markets - stand-by power generators and cathodic protection for the gas pipeline industry. OmniMetrix manages the customer data acquired by the remotely installed devices in its data center, thereby delivering a sophisticated monitoring solution to customers large and small, with a wide range of technical sophistication. The majority of the company's business is in the U.S., however, its products and services are global in design and functionality. The company has to date had limited foreign sales, but is exploring opportunities in certain foreign markets and is involved with small pilot projects in the Caribbean and Africa.

Products & Services

Within the defined Power Generation and pipeline industries, OmniMetrix sells industry-specific remotely installed devices along with the ongoing data management function. While the details of the remote devices, and the types of data are quite different between these markets, the core processes are very similar, and share much common firmware and database functionality.

In the Power Generation ("PG") market, the company 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. It offers features to extract performance data from the most recent generations of machinery, along with the ability to be wired to old legacy generators with no performance data availability. In all cases, the G8500 family provides the ability to identify whether an emergency generator is capable of operating as expected.

The G8500 family is available in Cellular (GSM & CDMA), Satellite (Iridium) and Ethernet versions, allowing global functionality according to the customers' specific needs. GSM Cellular technology is used in more than 90% of the company's installations, due to its global availability and installation simplicity. Satellite connectivity is used primarily for extremely remote locations, and coastal areas where hurricanes are considered to be a consequential risk.

In 2012, the company designed and gained approval from PTCRB and AT&T for a new 4G data radio module, replacing the 2G technology used since 2007. This radio assures a long installed lifetime on the AT&T networks that dominate the US GSM landscape, and simultaneously dramatically lowers the cost of the radio subsystems. 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. The company's 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. In this space, devices called Rectifiers apply a “protection voltage” to the metal pipe, causing metallic ions to be attracted to the pipe, and preventing iron ion migration off into the soil (corrosion). 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.

Table of Contents

The OmniMetrix Computer Automated Test Station (CATS) is also used to measure the protection effectiveness on the pipeline. While the RM measures the performance of the rectifier at the point where it applies voltage to the pipeline, the CATS measures the effectiveness in a distributed form, providing data points along the pipeline segment powered by the rectifier. These devices assure that the pipeline is adequately protected at long distances from the rectifier. The data delivered by the CATS is a key component in the corrosion management programs at our pipeline customers.

Customers and Markets

In the PG market, OmniMetrix works primarily with and through dealers and distributors of the most common brands of generators. The company's monitors may be found installed on generators from original equipment manufacturers ("OEMs") such as Caterpillar, Kohler, Generac, Cummins, MTU Energy and and other generator manufacturers. In this market, 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. Since they desire to be considered “experts in the field”, the availability of the operational data supports their positioning in the eyes of their customers. This early delivery of operational data 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.

From the machine owner's perspective, the OmniMetrix product provides a powerful tool to be used in their constant effort to avoid failures. In their world, a generator failure will likely never be due to a physical failure such as a broken crankshaft. Their failures come from consumables such as batteries and fuel; consumables that can be monitored. 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. This transition to prognostics sets OmniMetrix apart from its competitors, who are still in the failure reporting phase of application development.

Based on both published and industrial sources, we estimate that the U.S. emergency power generation marketplace consists of at least 100,000 industrial generators and 150,000 residential generators per year. These new machines join an installed base of approximately two million generators. While new generators provide more useful diagnostic data thanks to their computerized controls, older machines have an ever greater need for basic monitoring due to their aging systems. Some estimates place the world market for monitoring at over 10 million installed generators. OmniMetrix is beginning to explore the viability of certain international markets.

Historically, OmniMetrix viewed its hardware sales as a profit center and priced its units accordingly. Since our acquisition of OmniMetrix in February 2012, we expanded our sales staff and related activity with a goal towards increasing the number of monitors in the field. In the second half of 2012, we initiated an aggressive promotional campaign to sell its monitoring units to certain customers at minimal or no cost. Sales of OmniMetrix monitoring systems (both PG and CP) includes equipment, installation and monitoring services. Any revenues (and related costs) associated with sale of equipment and related installations are deferred until delivery, installation and customer acceptance is completed. Revenue and related costs with respect to the sale of equipment and related installations are then recognized over the estimated life of the customer relationship. Revenues from the prepayment of monitoring fees (generally paid 12 months in advance) are deferred when payment is received from the customer and is recognized as revenue over the monitoring service period. We expect that the cash flow impact of providing monitoring units at minimal or no cost will be somewhat offset by collecting up-front payment of first year monitoring fees which collectively generate a small cash flow gross profit. In subsequent years, upon renewal of the annual monitoring fee, we anticipate generating significant cash flows from such monitoring units.

In the CP segment, OmniMetrix sells through partner companies that are full-time cathodic protection specialists. These companies assist the pipeline owners with corrosion prevention methods and programs. They also sell other CP components and test equipment.

The spider web of pipelines constituting transmission and distribution systems is broken into electrically isolated Cathodic Protection Areas (CPAs), each with a rectifier providing protection voltage. These CPAs typically consist of about ten miles of pipe. In the transmission market, this could be ten miles of large pipe running along the same right of way as an overhead power line. In the distribution market, the pipes are commonly smaller, lower pressure lines, with many branches to residential and industrial gas meters. In both cases, the electrical segmentation of CPAs allows the pipeline companies to better isolate protection failures. Smaller CPAs would provide better pipeline management opportunity, but the design benefits must be balanced against the cost of isolation and protection of fewer miles of pipe per CPA.

Virtually all natural gas is transported via underground pipes. Historically, steel pipes have been used due to the high

Table of Contents

pressures involved in transport. These pipes are at risk to both natural (rust, earthquake, soil heaving, etc.) and human (backhoe) damage, and high pressure leaks can cause catastrophic results. The U.S. Department of Transportation is involved in the regulation of the pipelines, and part of that regulation is the requirement for corrosion prevention programs. While the regulations do not call for wireless monitoring of the protection process, they do require monitoring and data collection, even if by men in trucks. The OmniMetrix SmartService™ program is built entirely around the concept of “Use Data, Not Trucks”.

In 2012, one customer in its PG segment accounted for approximately 24% (approximately $220,000) of OmniMetrix's total revenues. The balance of OmniMetrix's revenues in 2012 were generally spread across a broad base of customers. The loss of 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.

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.

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. This level of technology and market commitment is completely unmatched. In 2013, OmniMetrix is planning the opening of its 24 x 7 Network Operation Center ("NOC"). With the NOC, OmniMetrix will couple its data analysis capabilities with an active call center environment, giving its customers a new level of support.

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.

(2) 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. They are also generally designed for the machine owners' use, in a reactive application. Deep Sea Electronics offers wireless devices to allow remote access to generators with some of their controls. Similarly, Cummins Power Generation offers a device that allows their machine owners to browse directly into the generator. This device is only valid for certain types of their generators.

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

Table of Contents

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 that 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 several patented devices and processes, and additional applications 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 6,000 square feet of office and production space in the Bristol Industrial Park located in Buford, Georgia under a lease that expires on December 31, 2013. OmniMetrix has entered into a lease at another location for its expected expansion located in Hamilton Mill Business Park in Buford, GA. This new space is approximately 21,000 square feet and will accommodate the anticipated growth in the business. The new lease will expire on the later of December 31, 2019 or six years after our move-in date. OmniMetrix expects to move its operations and activities in mid 2013.

ENERGY AND SECURITY SENSOR SYSTEMS - US SEISMIC SYSTEMS, INC.

In accordance with applicable accounting standards, we began consolidating the results of US Seismic Systems, Inc. ("USSI") beginning February 23, 2010, the date we effectively acquired USSI. USSI is a Delaware corporation based in Chatsworth, California which was established in October 2007. In a series of investments, option exercises and exchanges of shares beginning in November 2009 through February 2013, we acquired both common and preferred stock of USSI. We currently own approximately 95.0% 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 the energy market. In addition, USSI supplies similar systems to the security (both commercial and defense) markets. 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 provide its users with a competitive advantage over those relying on existing sensor technology. As further described below, primary product lines for which USSI is currently developing products include downhole fiber optic sensor systems for hydrofrac monitoring used in unconventional oil and gas exploration and recovery, and 4D seismic reservoir monitoring systems. USSI has demonstrated the highest performance down-hole seismic sensor system systems in the oil and gas industry. USSI's sensor systems provide the greatest sensitivity (improved signal to noise ratio), widest bandwidth (detects all signals of interest), lowest noise floor (detects quieter signals) and high temperature capable seismic sensors available today for use in the oil and gas industry. USSI delivers this leading-edge performance with its proprietary sensor designs and interrogator hardware/software package. Following successful oilfield demonstrations with multiple clients, USSI has received first time orders for systems from these clients and is in the process of producing initial systems for delivery in the first half of 2013. We believe that these initial systems are a prelude to much larger follow-on orders following an analysis period by the customer. USSI has also sold fiber optic perimeter security systems in Canada, Latin America and the Middle East.

Table of Contents

Hydrofrac (microseismic) monitoring. There is a fundamental shift underway within the oil and gas industry as 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. Out of over 20,000 wells fracked annually in the U.S., less than 3% are monitored using micro-seismic techniques in large part due to high cost, poor reliability and high temperature restrictions. Leading industry participants tell USSI that they will monitor 100% of frac jobs if equipment cost can be reduced by 75%, which we believe is achievable by utilizing USSI fiber optic sensor systems. According to a recent survey of decision makers within the petroleum operating companies engaged in hydraulic fracture and fracture mapping services by the well-known oilfield research firm Welling & Co., 73% of respondents dissatisfied with their frac jobs attributed it to a failure to understand the subsurface. We believe, there is only one way to improve understanding of the subsurface, that is via seismic monitoring with sensors specifically designed to detect and locate microseismic events. Potential market size for USSI is very large based upon $0.5 million to $1.0 million per monitoring system. USSI's fiber optic sensors can provide the ability to monitor the fracking process to improve production efficiency and minimize potential environmental damage at a fraction of the cost of competing technology.

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

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. The system utilizes sophisticated signal processing techniques to screen out false alarms, and will detect, pinpoint and notify any attempts to infiltrate a facility.

The USSI security sensing system features low noise, high sensitivity, and high dynamic range, providing a true reproduction of acoustic signals, and clearly defined, independent sensing zones. We believe the USSI buried fiber optic sensing system has the lowest noise floor of any competing fiber optic perimeter security system. This advantage enables the USSI system to detect in-ground disturbance signals that may be very weak or that occur at much larger distances. In addition, the USSI system is unique in its ability to detect and classify multiple simultaneous events on single or multiple zones. This capability is important in that it prevents a potential intruder from foiling the system by masking an intrusion attempt by simultaneously applying loud noise at an alternate location. Certain of these products are already in use by customers.

Customers and Markets

In the period since our acquisition of USSI in February 2010, it has recorded total revenues of approximately $3.2 million ($0.4 million in 2010, $1.3 million in 2011 and $1.5 million in 2012). Although the revenue to date remains small, USSI has received numerous initial orders for its products and services following successful proof-of-concept trial projects and is in the process of delivering these initial systems over the next six months. Each of these proof-of-concept trial projects are believed to have the potential for annual multi-million dollar follow-up orders.

Energy. USSI targets its products into the oilfield geophysics market, which has a $12 billion annual market size, of which approximately $10 billion is for seismic acquisition and processing activities, and approximately $2 billion is for equipment such as seismic sources and sensors. USSI's sensor systems fall into the oilfield geophysical equipment market, and its potential customers are primarily the oilfield service companies. The leading oilfield service companies are Schlumberger, Halliburton, Baker Hughes, CGG Veritas and BGP.

According to a recent report, three companies account for about 90% of the Oilfield Geophysical Equipment market. Sercel, S.A, a subsidiary of Compagnie Generale de Geophysique-Veritas (CGGVeritas) represents approximately 50% of the market, ION Geophysical Corporation represents approximately 30% and Oyo Geospace Corporation represents about 10%. The majority of their equipment is currently used for marine seismic and land (surface) seismic applications, with downhole seismic and microseismic making up only about 10%. USSI is initially pursuing the downhole seismic and microseismic market as these are the least mature, but the fastest growing markets. USSI believes the size of this market can grow to in excess of $1 billion as the microseismic monitoring percentage of unconventional oil and gas wells increases from today's 2-3% to 50%. After addressing these markets, USSI plans to pursue the larger, more mature marine and land seismic markets.

Table of Contents

Security. As a result of the attacks of September 11, the United States and many of its international partners have embarked on a massive, long-term effort to enhance the security of their homelands. Waging a cost effective campaign to enhance homeland security demands new, highly developed technologies. USSI's all fiber optic security systems are an example of one of those technologies. For these applications, what is needed is an unobtrusive sensor system that will allow military forces and/or border security personnel to monitor long stretches of territory from protected sites at extended standoff ranges.

According to Homeland Security Research Corporation ("HSRC"), a consulting firm, the U.S. Homeland Security-Homeland Defense market is larger and is growing faster than many realize. HSRC forecasts it to grow from $69 billion in 2010 to $85 billion by 2014. USSI's potential customers are the large and small commercial security system integrators, government organizations such as the U.S. Department of Homeland Security, and large government contractors such as Boeing, Northrop Grumman, Lockheed Martin, and Raytheon as well as leading commercial system integrators such as ADT Ltd. (a subsidiary of Tyco International Ltd.), Protection One, Inc., and Monitronics, International, Inc.

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 sensor arrays using existing technology cost $4M to $6M per system. The equivalent USSI downhole system sells for a fraction (typically one-third to one-fifth) 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 200°C 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.

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

Security Systems. USSI's competition in the security market comes from well established companies utilizing conventional (leaky-coax cable) technology and relatively new companies utilizing fiber optic technology. Both technologies can be mounted to a fence or buried around a perimeter. The leading competitors using conventional technology are Southwest Microwave Inc., and Magal Security Systems, Ltd. The leading fiber optic competitors are Future Fibre Technologies Pty Ltd., FiberSensys Inc., Sensoptics Ltd., and Senstar Corporation.

Existing conventional technology, which has been installed in tens of thousands of locations, has multiple drawbacks. These drawbacks include susceptibility to electromagnetic interference ("EMI"), radio frequency interference ("RFI") and lightning. The traditional geophones that are part of existing conventional technology consist of a moving coil of wires around a stationary magnet. If EMI from an outside magnetic field is introduced, it will interfere with the geophone's performance. If RFI from a radio (or cell phone, or other wireless device) is transmitting near a system that contains existing conventional technology, it could interfere with the system's performance as well. Furthermore, it is expensive to install and maintain the existing conventional technology, requiring multiple electronics boxes and unreliable batteries in the field. These problems with existing conventional technology led to the emergence of fiber optic-based security systems. The problems with the competing fiber optic security

Table of Contents

systems include an inability to detect multiple simultaneous events, low sensitivity (10 to 100 times less sensitive than USSI technology), and low signal fidelity (making it difficult to distinguish false alarms).

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 six U.S. patents and one U.S. trademark. Currently, there are 17 patent applications and two trademark applications pending with the US Patent and Trademark Office. Most of the patent applications have also been nationalized for examination in foreign countries.

Facilities

USSI's activities are conducted in approximately 21,000 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 April 2015. We believe USSI's facilities are sufficient for expected expanding production requirements over the next six to twelve months. However, 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.

BACKLOG

As of December 31, 2012, our backlog of work to be completed and the amounts expected to be completed in 2013 were as follows (amounts in millions of U.S. dollars):

	Backlog at December 31, 2012	Amount expected to be completed in 2013
DSIT Solutions	$9.6	$8.8
GridSense	1.2	1.2
OmniMetrix	1.7	1.2
USSI	1.0	1.0
Total	$13.5	$12.2

RESEARCH AND DEVELOPMENT EXPENSE, NET

Research and development expense recorded for the years ended December 31, 2010, 2011 and 2012 for each of our consolidated subsidiaries is as follows (amounts in thousands of U.S. dollars):

	Years ended December 31,		
	2010	2011	2012

DSIT Solutions	$323	$568	$1,048
GridSense *	259	1,370	1,624
OmniMetrix**	—	—	341
USSI ***	383	1,057	3,577
Total	$965	$2,995	$6,590

Table of Contents

* GridSense was acquired on May 12, 2010. Accordingly, the research and development expense recorded with respect to GridSense relates only to the period after its acquisition.

** 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.

*** USSI was effectively acquired on February 23, 2010. Accordingly, the research and development expense recorded with respect to USSI relates only to the period after its acquisition.

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

EMPLOYEES

At December 31, 2012, we employed a total of 218 employees, including 193 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, 2012				
	U.S	Australia	Israel	Europe	Total
DSIT Solutions	—	—	62	—	62
GridSense	34	22	—	—	56
OmniMetrix	27	—	—	—	27
USSI	43	—	—	—	43
Acorn*	4	—	—	1	5
Total	108	22	62	1	193

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

	Full-time employee count at December 31, 2012			
	Production, Engineering and Technical Support	Marketing and Sales	Management, Administrative and Finance	Total
DSIT Solutions	49	3	10	62
GridSense	42	9	5	56
OmniMetrix	13	8	6	27
USSI	37	1	5	43
Acorn*	—	—	5	5
Total	141	21	31	193

* Acorn's full-time employee count includes Richard Rimer, Vice-Chairman of the Board of Acorn who provided full-time consulting activities for the Company. See Item 11 EXECUTIVE COMPENSATION - Compensation of Directors.

We have no collective bargaining agreements with any of our employees. However, with regard to our Israeli activities, certain provisions of the collective bargaining agreements between the Israeli Histadrut (General Federation of Labor in Israel) and the Israeli Coordination Bureau of Economic Organizations (including the Industrialists Association) are applicable by order of the Israeli Ministry of Labor. These provisions mainly concern the length of the workday, contributions to a pension fund, insurance for work-related accidents, procedures for dismissing employees, determination of severance pay and other conditions of employment. We generally provide our Israeli employees with benefits and working conditions beyond the required minimums. Israeli law generally requires severance pay upon the retirement or death of an employee or termination of employment

Table of Contents

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 20 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.

Table of Contents

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.

Despite the gain on our sale of CoaLogix in 2011, we have a history of operating losses, and have used significant amounts of cash to fund our operating activities over the years. In 2010, 2011 and 2012, we had operating losses of $6.5 million, $8.0 million and $20.7 million, respectively. Cash used in operating activities of continuing operations in 2010, 2011 and 2012 was $6.3 million, $7.8 million and $22.2 million, respectively.

In addition, we may continue to pursue additional acquisitions and investment opportunities and expect to continue to support at least a portion of the financing needs of our subsidiaries. While we currently have enough cash on hand to fund our operations for the next 12 months, we may need additional funds to finance future investment and acquisition 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 investment/acquisition strategy in order to continue to pursue our corporate goals.
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. In order to position ourselves to take advantage of potential market expansion or complimentary acquisitions for our existing businesses, we are contemplating whether and on what terms we may offer additional securities for sale in the future. We currently expect that we may conduct such an offering sometime during 2013, the amount and terms of which cannot be determined at this time.

The ongoing instability in global credit and financial markets could materially and adversely affect our business and results of operations.

The ongoing global financial crisis may limit our ability to access the capital markets at a time when we would like, or need, to raise capital, which could have an impact on our ability to react to changing economic and business conditions. Accordingly, if the global financial crisis and current economic downturn continue or worsen, our business, results of operations and financial condition could be materially and adversely affected.

There can be no assurance that we will continue to declare cash dividends.

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 intend to continue to pay such dividends subject to capital availability and periodic determinations by our Board of Directors that cash dividends are in the best interest of our stockholders and are in compliance with all laws and agreements of Acorn applicable to the declaration and payment of cash dividends. Future dividends may be affected by, among other factors:

- our views on potential future capital requirements for investments in our subsidiaries;
- use of cash to consummate acquisition transactions;

- stock repurchase programs;
- changes in federal and state income tax laws or corporate laws; and
- changes to our business model.

Our dividend payments may change from time to time, and we cannot provide assurance that we will continue to declare dividends in any particular amounts or at all. A reduction in our dividend payments could have a negative effect on our stock price.

Table of Contents

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 and other key personnel. In particular, our success depends on the continued efforts of John A. Moore, our CEO, Benny Sela, CEO of DSIT, Lindon Shiao, CEO of GridSense, Deena Redding, CEO of OmniMetrix and Jim Andersen, CEO of USSI and other key management level employees. The loss of the services of any of these key employees 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. Although to date we have been successful in retaining the services of senior management and have entered into employment agreements with them, members of our senior management may terminate their employment agreements without cause and with various notice periods. We may also not be able to locate or employ on acceptable terms qualified replacements for our senior management or key employees if their services were no longer available.

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

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

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

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

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. Assuming the rules remain effective, we will be required to conduct specified due diligence activities for the 2013 calendar year, and provide our first report in May 2014. Recently, a challenge to the rules was 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. The outcome of such litigation cannot be determined, but if the rules remain in force in substantially their current form, we will have to determine
whether conflict minerals are necessary for the functionality of any of our products, and if so, undertake steps to determine their

Table of Contents

origin. We anticipate that fulfilling our compliance obligations with the rules will be both time consuming and potentially costly.

Although the exact amount cannot be determined at this time, commentators have suggested compliance could costs companies like ours as much as several hundreds of thousands of dollars per year. Although we anticipate that our costs will be substantially lower, we may also incur additional expenses related to any changes to our products we may decide are advisable based upon our due diligence findings, as well as increased supply costs as alternative supply sources may not be competitively priced.

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

Part of our business model includes the acquisition of new companies either as new platform companies such as OmniMetrix in February 2012 or complimentary companies for our subsidiaries. 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 our 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 our 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
- the difficulty of 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. Any significant acquisition by one or more of our operating companies could require substantial use of our capital and may require significant debt or equity financing. We 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.

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

From time to time in the ordinary course of our business, we may become involved in various legal proceedings, including commercial, product liability, employment, class action and other litigation and claims, as well as governmental and other regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Furthermore, 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 recorded in connection with our acquisitions is subject to mandatory annual impairment evaluations and as a result, we could be required to write off some or all of this goodwill, which may adversely affect our financial condition and results of operations.

In accordance with applicable accounting principles, goodwill is not amortized but is reviewed annually or more frequently for impairment and other intangibles are also reviewed if certain conditions exist. While we have not recorded an impairment of

Table of Contents

goodwill during the years ended December 31, 2012 or 2011, during the year ended December 31, 2010, we recorded a $5.0 million impairment of goodwill associated with our former Coreworx subsidiary following our decision to stop funding it and an impairment of $1.2 million associated with our GridSense segment. Any additional impairment of the value of goodwill 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 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

Table of Contents

agreements may be breached, and we may not have adequate remedies for any breach. Our trade secrets may also be known without breach of such agreements or may be independently developed by competitors.

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

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

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

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

As part of our business operations, we maintain insurance both as a corporate risk management strategy and to satisfy the requirements of many of our contracts. Insurance products are impacted by market fluctuations and can become expensive and sometimes very difficult to obtain. There can be no assurance that we can secure all necessary or appropriate insurance at an affordable price for the required limits. Our failure to obtain such insurance could lead to uninsured losses that could have a material adverse effect on our results of operations or financial condition, or cause us to be out of compliance with our contractual obligations.

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.

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 $27.0 million at December 31, 2012. 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 37% of the accounts receivable at December 31, 2012, were due from one customer which pays its 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 70% of the balance in unbilled revenue at December 31, 2012 was due from two

Table of Contents

customers that when billed, pay their trade receivables over usual credit periods. Credit risk with respect to the balance of unbilled revenue is generally diversified due to the number of entities comprising our customer base.

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

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

RISKS RELATED TO DSIT SOLUTIONS

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

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

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

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

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

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

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

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

DSIT is 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, 2012, DSIT had $2.6 million of performance and bank guarantees outstanding. In addition, DSIT had on deposit at two Israeli banks

Table of Contents

approximately $0.8 million collateralizing some of these guarantees. These deposits are restricted and, accordingly, DSIT cannot use these funds for operations until the guarantees which are being collateralized are released. At times, this can create cash flow difficulties which could have a material adverse effect on its operations.

In addition, DSIT may not always be able to supply such guarantees or restricted deposits without financial assistance from Acorn. If Acorn needs to provide financial guarantees for DSIT, Acorn may not have sufficient funds available to it to invest in other emerging ventures or take advantage of opportunities available to it in a timely manner.

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

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

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

A number of DSIT's suppliers provide it with major components for some of its 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 is negotiating with USSI a transfer of technology agreement whereby DSIT would receive from USSI an exclusive world-wide license to use USSI technology to provide systems, devices, installations and methods for monitoring ground sites, facilities, locations and perimeters and against land-based security threats for government and non-government customers for defense, security or military and safety applications.

DSIT is currently investing significant amounts of capital in creating the infrastructure to support the transfer of technology and any final agreement with USSI may involve significant payments to USSI for the license to use the USSI technology. We have no assurance that the transfer of technology will be completed within the expected time frame or budget currently anticipated, or that we will be able to obtain any necessary export licenses from the US authorities on acceptable terms or at all. We further have no assurance that following the completion of the transfer of technology, that DSIT will successfully be able to integrate it into its portfolio of products and be able to

commercialize the applications.

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.

Work on the PAUSS project has begun, but continued development will require USSI to obtain certain export licenses from either the U.S. Department of Commerce or State Department and whether such licenses can be obtained on a timely basis or terms cannot be determined. The BIRD Foundation grant is designated to cover 50% of the development costs of the 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. Furthermore, we have no assurance that the development of these systems will be completed within the

Table of Contents

expected time frame or budgets. We further have no assurance that if DSIT successfully develops these systems, that DSIT will successfully be able to commercialize the applications.

RISKS RELATED TO GRIDSENSE

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

GridSense incurred net losses for the years ended December 31, 2010, 2011 and 2012. We believe that GridSense will reduce its losses in 2013; however, we can provide no assurance that GridSense will generate sufficient revenues and cash flow to allow it to become profitable or to sustain profitability or to have positive cash flows.

GridSense will need additional financing to grow and finance its operations

In 2012, we invested $5.3 million in GridSense and GridSense signed a Loan and Security Agreement with a bank and received a $1.0 million line-of-credit. However, we expect that GridSense will continue to require working capital support in 2013 to finance its operations in 2013 as it works to grow its revenues (through March 1, 2013, we have invested an additional $450,000 (out of a committed 2013 investment of $1.5 million - see Liquidity and Capital Resources) in GridSense. We have no assurance whether and to what extent GridSense will have access to the entire $1.0 million facility given that the availability is subject to a calculated borrowing base as well as certain financial and other covenants.

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

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

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

GridSense's products are subject to regulatory approvals.

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

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

Sales to utilities are generally characterized by long sales cycles.

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

Table of Contents

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

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

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

GridSense's market is subject to rapidly changing technologies.

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

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

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

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

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

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

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 and used $2.2 million of cash in its operations. We believe that OmniMetrix will continue to report losses in 2013 and have negative cash from operations. We can

Table of Contents

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

OmniMetrix currently provides its PG monitoring units at minimal or no costs to certain customers in order to accelerate the penetration rate. Accordingly, it does not cover its hardware costs on these units and depends on these customers maintaining their monitoring service connections to fund the company's future working capital needs. This new business model has not yet been proven to be sustainable. If the pace of demand for these PG units is greater than our expectations, OmniMetrix will need additional working capital to finance its inventory requirements. 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.

OmniMetrix's rate of customer terminations, or average customer "churn" in the 2012 period since our acquisition of them was 1%. Our churn rate could increase in the future if customers are not satisfied with our service. Other factors, including increased competition from other providers, alternative technologies, and adverse business conditions may also influence our churn rate.

If we have an increase in our churn 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. If our churn rate increases, we will have to acquire even more new customers in order to maintain our existing revenues. We incur significant costs to acquire new customers, and those costs are an important factor in determining our net profitability. Therefore, if we are unsuccessful in retaining customers or are required to spend significant amounts to acquire new customers, our revenue could decrease and our operating results could be affected.

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

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

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

Since our acquisition of OmniMetrix in February 2012, we invested $2.5 million to support their growth and working capital needs. OmniMetrix is dependent on Acorn's ability and willingness to provide funding to support its business and growth strategy. We have committed to an additional investment of $3.0 million to OmniMetrix in 2013 (see Liquidity and Capital Resources). OmniMetrix will be competing with other Acorn subsidiaries for access to Acorn capital and credit support. 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 is currently in discussions with a bank to provide working capital financing. 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.

OmniMetrix is dependent on the services of certain key personnel.

OmniMetrix's success is largely dependent on the skills, experience and efforts of its senior management team and other key personnel. In particular, its success depends on the continued efforts of Deena Redding, its CEO, and Harold Jarrett, its CTO who is both a founder and its most experienced engineer. The loss of the services of either of these key employees could materially harm OmniMetrix's business, financial condition, future results and cash flow. OmniMetrix does not maintain “key person” life insurance policies on its employees other than for Mr. Jarrett. Although to date OmniMetrix has been successful in retaining the

Table of Contents

services of senior management and has entered into employment agreements with Ms. Redding and Mr. Jarrett, they may terminate their employment agreements without cause and with various notice periods. OmniMetrix may also not be able to locate or employ on acceptable terms qualified replacements for its senior management or key employees if their services were no longer available.

OmniMetrix has substantially increased its personnel count and related expense since our acquisition and whether sales can support the increased overhead cannot be determined.

Following Acorn's acquisition of OmniMetrix, the number of employees grew from 12 to 27 during 2012; in particular it increased the sales team to a total of 8 full time professionals. Although the sales team's compensation is partially commission-based, it still incurs fixed base compensation and both variable and fixed employee benefit expenses. Whether future operations can support the increased personnel costs cannot yet be determined and in the interim, operating expenses are expected to significantly out pace revenues.

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.

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.

Table of Contents

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 by such subcontractor following the placement of a large order 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.

Current OmniMetrix internal systems are not robust enough to sustain our anticipated growth and we will face challenges in implementing new systems and training users while maintaining our culture and product standards

Since we acquired OmniMetrix, the workforce has increased substantially and our product platform has expanded to include preventative analytics. We are in the process of moving into a new office and assembly facility and if our sales plans meet anticipated goals, both our hardware sales volume and customer monitoring contracts will increase, placing greater demands on both personnel and financial reporting systems. We have recently hired a chief information officer to help us expand and update the necessary information technology (IT) platform and we are working internally to refine our sales, procurement and customer service functions. Whether we will be able to successfully keep pace with anticipated growth cannot be determined, and our failure to properly execute on the infrastructure initiatives we have underway could materially and negatively impact our financial performance if we are unable to meet customer demands. While we believe our current financial reporting systems are adequate, we are also transitioning to more automated procedures and any failure during the transition or otherwise in implementing new accounting software could result in our inability to provide timely and accurate financial information.

RISKS RELATED TO USSI

USSI has a limited operating history.

USSI was formed in November 2007 and has a limited operating history. Many of its products are at a research and development stage and substantial time, effort and financial resources will be required before it can become profitable. 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 and security 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.

Since its inception, USSI has had annual operating losses. USSI expects to continue to have operating losses for the year ending December 31, 2013 and possibly beyond as a result of increased operating expenses required to commence manufacturing and production and to expand its sales and marketing operations. 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.

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 have invested $14.75 million directly in USSI. In February 2013, we committed to an additional investment of $5.0 million in USSI (see Recent Developments). While USSI has reached agreement with a bank for a $1 million line-of-credit in 2012, we have no assurance that USSI’s future capital needs will not exceed the amount of the credit line or the amounts of Acorn's new investment commitment

Table of Contents

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 have no assurance whether and to what extent USSI will have access to the entire $1.0 million bank facility given that the availability is subject to certain financial and other covenants. USSI may need to raise 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. If additional funds are raised through the direct issuance of equity or convertible debt securities to third parties, Acorn's percentage ownership of USSI may be reduced.

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

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

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

If USSI is unable to keep pace with technological change, USSI's results of operations, financial condition and cash flows may suffer.

Many of USSI's products are in the research and development stage. In addition, some of USSI's existing products may require additional engineering and upgrades in conjunction with market developments as well as specific customer needs. There can be no assurance that USSI 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.

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 the specifications required by the customers regarding quality. We believe that USSI's space and manufacturing capabilities at its current facilities in Chatsworth, California to be sufficient to handle a large increase in sales for the future. USSI has increased its production staff and has purchased automation, 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 any will exist on terms acceptable to USSI cannot be determined. Whether such systems and the personnel with the skills to effectively operate them can be put in place to meet customer orders on a timely and high quality basis can also not be determined. Failure to do so could result in delays or failures in meeting customer demand, resulting in a loss of customer confidence and orders. Such difficulties could materially and adversely affect the business, results of operations and financial condition of USSI.

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

USSI's products incorporate “state of the art” technologies. As such, in many cases there are a limited number of suppliers of key components. In particular, USSI currently relies on a single source for the development of its high-end interrogators for some of its technologically advanced product offerings. USSI has licensed very advanced technology from Northrop Grumman that was initially developed for U.S. Navy fiber optic sonar applications and intends to field its own high performance interrogator in 2013. While USSI is confident that it will be able to introduce the new interrogator in 2013, any development delays could materially and adversely affect USSI's business, results of operations and financial condition. Where possible, USSI attempts to develop secondary back-up suppliers for key components.

USSI’s targeted customers may be reluctant to try its alternative solution despite its increased reliability and lower cost.

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. The competition in USSI’s markets may have superior resources and marketing ability which could lead to potential customers selecting existing products over USSI’s products. 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

Table of Contents

place relative to the competition 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. When working on a fixed-price basis, USSI expects to undertakes 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 proposed exports of products and technical data by USSI to DSIT in connection with the PAUSS project and related projects will require either an EAR or ITAR license and it cannot be determined at this time if licenses will issue at all, on a timely basis or on acceptable terms.

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

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 limit 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 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 2012, our common stock has closed at prices as low as $6.35 and as high as $12.84 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;

Table of Contents

- 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 our dividend policy;
- changes in accounting rules;
- changes in investor perceptions; or
- changes in expectations relating to our products, plans and strategic position or those of our competitors or customers.

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

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

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

As of March 7, 2013, 18,071,560 shares of our common stock were issued and outstanding. As of that date we had 23,000 warrants outstanding and exercisable with a weighted average exercise price of $3.68 and 1,008,188 options outstanding and exercisable with a weighted average exercise price of $4.40 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 1, 2013, 324,670 options are outstanding, but have not yet vested and are not yet exercisable.

Table of Contents

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

Table of Contents

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 19,000 square feet of space in the Tel Aviv, Israel metropolitan area under a lease that expired in August 2012. DSIT is currently continuing in these premises on a month-to-month basis and negotiating a lease extension with additional space for expanded production facilities. The expanded facilities would cover approximately 22,000 square feet. The current annual rent is approximately $218,000. It is expected that under the new lease agreement, the annual rent would increase to approximately $276,000.

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 $116,000. The lease agreement expires in February 2016. The annual rent at the West Sacramento office increases 2% per year. The Sydney office occupies approximately 8,100 square feet of office, testing laboratory, production and warehouse space. The lease in Sydney expires in July 2013. The annual rent is approximately $90,000 and is subject to annual increases based on the Australian CPI index. For its Sydney office, GridSense expects to be able to negotiate new lease terms not materially different from the existing lease terms.

OmniMetrix's activities are currently conducted in approximately 6,000 square feet of office and production space in Bristol Industrial Park located in Buford, Georgia under a lease that expires on December 31, 2013. OmniMetrix has entered into a lease at another location for its expected expansion located in the Hamilton Mill Business Park in Buford, GA. This new space is approximately 21,000 square feet and will accommodate the anticipated growth in the business. The lease is for a seven year term which commenced on January 1, 2013 and provides for annual rent of approximately $24,000 in the first year (the first six months are rent-free) and annual rents ranging from approximately $97,000 to $109,000 in the second through seventh years. The new lease will expire December 31, 2019. OmniMetrix expects to move its operations and activities in mid 2013. The lease also provides for the landlord of the property leased to OmniMetrix to participate in up to $175,000 of tenant improvements to the property. OmniMetrix expects to expend approximately $350,000 for improvements to the property.

USSI's activities are conducted in approximately 21,000 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 April 2015. The annual rent at this facility is approximately $150,000.

Table of Contents

ITEM 3. LEGAL PROCEEDINGS

None.

Table of Contents

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Table of Contents

PART II

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

Market Information

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

	High	Low
2011:		
First Quarter	$4.37	$3.56
Second Quarter	4.16	3.46
Third Quarter	5.72	4.07
Fourth Quarter	6.30	4.64
2012:		
First Quarter	$10.87	$6.35
Second Quarter	12.84	8.00
Third Quarter	10.27	8.09
Fourth Quarter	8.99	7.24

As of March 7, 2013, the last reported sales price of our common stock on the Nasdaq Global Market was $6.74, there were 116 record holders of our common stock and we estimate that there were approximately 3,800 beneficial owners of our common stock.

Dividends

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

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

* Special dividend

36

Table of Contents

Our decision to pay similar dividends in the future will be affected by our future results of operations, financial position, business, changes to applicable tax laws and regulations, and the various other factors that may affect our overall business, including those set forth in "Risk Factors." Accordingly, we cannot assure you that in the future we will continue to pay comparable dividends, or any dividends at all.

We have adopted a Dividend Reinvestment Plan ("DRIP "). We have offered up to 600,000 shares of our common stock for purchase under the DRIP. The DRIP provides 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. We are currently issuing shares under the DRIP directly at a 5% discount from the market price. The DRIP is administered by the Company's stock transfer agent. Through December 31, 2012, we have issued 22,734 shares of common stock under the DRIP.

Table of Contents

PERFORMANCE GRAPH

The following stock price performance graph compares the cumulative total return of the Company's Common Stock during the period December 31, 2007 to December 31, 2012, 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, 2007.

Table of Contents

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2010, 2011 and 2012 and consolidated balance sheet data as of December 31, 2011 and 2012 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, 2008 and 2009 and the selected consolidated balance sheet data as of December 31, 2008, 2009 and 2010 has been derived from our unaudited 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.”

Table of Contents

Selected Consolidated Statement of Operations Data:

	For the Years Ended December 31,				
	2008	2009	2010	2011	2012
	(in thousands, except per share data)				
Revenues	$8,267	$9,219	$14,244	$18,928	$19,419
Cost of sales	5,600	5,264	8,200	12,015	14,216
Gross profit	2,667	3,955	6,044	6,913	5,203
Research and development expenses, net	236	457	965	2,995	6,590
Selling, general and administrative expenses	6,282	5,702	10,440	11,952	19,361
Impairments	3,664	81	1,166	—	—
Operating loss	(7,515)	(2,285)	(6,527)	(8,034)	(20,748)
Finance expense, net	(2,871)	(71)	(224)	(26)	57
Gain on early redemption of Convertible Debentures	1,259	—	—	—	—
Gain on sale of shares in Comverge	8,861	1,403	—	—	—
Gain (loss) on private placement of equity investments	7	—	—	—	—
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	—
Income (loss) from operations before taxes on income	(259)	(953)	(7,110)	(7,568)	(20,691)
Income tax benefit (expense)	(342)	719	(671)	12,767	2,956
Income (loss) from operations of the Company and its consolidated subsidiaries	(601)	(234)	(7,781)	5,199	(17,735)
Share of income (losses) in Paketeria	(1,560)	263	—	—	—
Share of losses in GridSense	(926)	(129)	—	—	—
Income (loss) from continuing operations	(3,087)	(100)	(7,781)	5,199	(17,735)
Gain on the sale of discontinued operations, net of income taxes	—	—	—	31,069	—
In-process research and development expense recorded in acquisition of discontinued operation	(2,444)	—	—	—	—
Loss from discontinued operations, net of income taxes	(2,612)	(6,076)	(17,969)	(1,948)	—
Non-controlling interest share of loss from discontinued operations	248	626	67	540	—
Net income (loss)	(7,895)	(5,550)	(25,683)	34,860	(17,735)
	—	(206)	595	549	1,024

Net (income) loss attributable to non-controlling interests					
Net income (loss) attributable to Acorn Energy, Inc. shareholders	$(7,895)	$(5,756)	$(25,088)	$35,409	$(16,711)
Basic net income (loss) per share attributable to Acorn Energy, Inc. shareholders:					
Income (loss) from continuing operations	$(0.48)	$(0.02)	$(0.48)	$0.33	$(0.93)
Discontinued operations	(0.21)	(0.48)	(1.20)	1.70	—
Net income (loss) per share attributable to Acorn Energy, Inc. shareholders	$(0.69)	$(0.50)	$(1.68)	$2.03	$(0.93)
Weighted average number of shares outstanding attributable to Acorn Energy, Inc shareholders - basic	11,374	11,445	14,910	17,462	17,891
Diluted net income (loss) per share attributable to Acorn Energy, Inc. shareholders:					
Income (loss) from continuing operations	$(0.48)	$(0.02)	$(0.48)	$0.32	$(0.93)
Discontinued operations	(0.21)	(0.48)	(1.20)	1.67	—
Net income (loss) per share	$(0.69)	$(0.50)	$(1.68)	$1.99	$(0.93)
Weighted average number of shares outstanding attributable to Acorn Energy, Inc shareholders - diluted	11,374	11,445	14,910	17,743	17,891

Table of Contents

Selected Consolidated Balance Sheet Data:

	As of December 31,				
	2008	2009	2010	2011	2012
	(in thousands, except per share data)				
Working capital	$13,838	$16,220	$14,599	$60,217	$35,958
Total assets	51,055	48,735	59,785	85,805	67,336
Short-term and long-term debt	3,591	635	1,610	818	153
Total Acorn Energy, Inc. shareholders' equity	33,448	30,777	33,373	69,651	51,659
Non-controlling interests	2,675	5,321	8,504	(84)	286
Total equity	36,123	36,098	41,877	69,567	51,945
Cash dividends paid per share	—	—	—	0.035	0.190

Table of Contents

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

RECENT DEVELOPMENTS

Acorn investment in USSI

On February 28, 2013, we entered into a new Stock Purchase Agreement (the 2013 USSI Purchase Agreement) with USSI pursuant to which we made a payment to USSI of $2.5 million to purchase additional shares of USSI Preferred Stock. The USSI Preferred Stock is the same class of shares that we acquired in 2012 and 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 us for the purchase price of our USSI Preferred Stock. Thereafter, we would receive a further payment for such shares ratably with all other USSI Common Stock holders as though our shares of USSI Preferred Stock were the same number of shares of USSI Common Stock.

Following the February 28, 2013 payment to USSI, we owned approximately 95.0% of USSI on an as converted basis. The 2013 USSI Purchase Agreement contemplates that the Company may make an additional investment of $2.5 million later this year in exchange for more shares of USSI Preferred Stock. If we fully fund that investment, we will own approximately 95.6% of USSI on an as converted basis (which amount would be diluted to approximately 87.9% if all options which could be awarded under USSI's 2012 Stock Purchase Plan were awarded and exercised).

Acorn Dividend

On February 7, 2013, the Board of Directors approved a dividend of $0.035 per share to be paid on March 4, 2013 to common stockholders of record on February 20, 2013. The dividend is a continuation of our policy to pay a regular quarterly per share dividend of $.035 per quarter. On March 4, 2013, the total dividend payment was $633,000 of which $516,000 was in cash and $117,000 (net of the DRIP discount of $6,000) was in common stock (representing 18,976 shares of common stock) in accordance with the DRIP.

GridSense Employee Incentive Plan

On January 14, 2013, our GridSense subsidiaries adopted the GridSense Employee Incentive Plan. The plan is intended to incent officers, employees, directors and consultants of GridSense to grow the value of GridSense by granting them awards in a bonus pool. Such pool will consist of 17% of the consideration received upon the sale of all or substantially all of the assets or securities of one or more of the GridSense entities, net of transaction expenses and agreed-upon returns to Acorn of, and on, our invested capital in such entities.

Table of Contents

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: Energy & Security Sonar Solutions (through our DSIT subsidiary), GridSense, Power Generation (PG) Monitoring through our newly acquired OmniMetrix subsidiary and USSI. 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 20 to our Consolidated Financial Statements included in this report.

DSIT Solutions

In 2012, DSIT continued its increased focus on marketing and developing its energy and security sonar solutions and products; particularly its products related to underwater security for energy and other strategic sites. Revenue of our DSIT subsidiary increased by $3.1 million, or 30%, from $10.5 million in 2011 to $13.6 million in 2012. The increase was due to increased revenue in the Energy & Security Sonar Solutions segment (from $9.1 million in 2011 to $12.2 million in 2012) while certain IT and consulting revenue which is included in our "Other" segment was unchanged in 2012 as compared to 2011. Fourth quarter 2012 revenue for DSIT was $3.6 million reflecting a slight decrease (5%) compared to fourth quarter 2011 revenue of $3.8 million. Fourth quarter 2012 revenues were also above (10%) third quarter 2012 revenues ($3.3 million).

The increase in 2012 revenues was a direct result of DSIT's receipt of its largest order ever ($12.3 million) for underwater security systems in late 2011 (the "SBS project"). The contract calls for the delivery and installation of a large number of AquaShield™ Diver Detection Sonar (DDS) and PointShield™ Portable Diver Detection Sonar (PDDS) systems to protect offshore oil platforms, coastal energy terminals and high value vessels against underwater intrusion and sabotage. DSIT began delivery of the systems in the fourth quarter of 2011 and in 2012 this order accounted for $7.4 million or approximately 55% of DSIT's revenue for the year. The decrease in fourth quarter 2012 revenues compared to fourth quarter 2011 revenues was due to a decrease in non-Naval project revenue in the 2012 quarter. The increase in fourth quarter 2012 revenues as compared to third quarter 2012 revenues was a result of increased progress on existing non-DDS Naval projects and the receipt of new non-Naval projects.

Gross profit in DSIT in 2012 was $5.1 million which reflects an increase of $1.4 million or 38% from $3.7 million in 2011. The increase in the year-on-year gross profit was attributable to both increased revenues and gross margins in DSIT’s Energy & Sonar Security projects. DSIT’s gross profit of $1.4 million during the fourth quarter of 2012 was virtually unchanged from DSIT’s gross profit in the fourth quarter of 2011 as the increased revenues were offset by a slight decrease in gross margin. Fourth quarter 2012 gross profit also reflected an increase of $0.3 million above third quarter 2012 gross profit ($1.1 million). The increase in fourth quarter 2012 gross profit as compared to third quarter 2012 gross profit was also driven by increased revenues and gross margins in DSIT’s Energy & Sonar Security projects.

DSIT's gross margin in 2012 was 37%, up from 2011’s gross margin of 35%. The increase in gross margin in 2012 was attributable to the relatively high margin revenue associated with the SBS project. Fourth quarter 2012 gross margin was 40% as compared to 39% in the fourth quarter of 2011 and 35% in the third quarter of 2012. The increased gross margins in the fourth quarter of 2012 as compared to the third quarter of 2012 was due to increased margins in DSIT's non-Naval projects.

During 2012, DSIT recorded approximately $1.0 million of Research and Development (R&D) expense, an increase of approximately $0.5 million compared to 2011. R&D expense was $0.3 million and $0.1 million during the fourth quarters of 2012 and 2011, respectively. The increase is primarily attributable in part to 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 products to include land-based security fiber-optic solutions. DSIT anticipates that its R&D costs will continue at or above above its current levels for the foreseeable future.

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 anticipates receipt of approximately 60% of the grant based on the expected allocation of project costs between DSIT and USSI. The first advance

Table of Contents

payment from the BIRD Foundation of approximately $110,000 was received in October 2012. 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 2012, DSIT recorded approximately $3.2 million of selling, general and administrative ("SG&A") expense as compared to approximately $3.1 million recorded during 2011. Fourth quarter 2012 SG&A of $1.0 million represents an increase of $0.3 million compared to fourth quarter 2011's SG&A of $0.7 million. The increase in DSIT SG&A expense for the quarter-on-quarter periods is primarily attributable to increased marketing costs associated with product demonstrations in Southeast Asia.

DSIT recorded a net income of $0.5 million in 2012 ($0.1 million in 2011 and $1.1 million in 2010). The increase of $0.4 million from 2011 to 2012 was due to the increased gross profit ($1.4 million - which resulted from both increased revenues and gross margins) which was offset by increased developments costs ($0.5 million) and SG&A expenses ($0.2 million) as well as increased income tax expenses ($0.4 million). DSIT’s project backlog at December 31, 2012 was approximately $9.6 million of which it expects to recognize approximately $8.8 million in 2013. DSIT expects to show modest revenue growth in 2013 compared to 2012 due to revenue it based upon its existing backlog and additional orders it expects to receive during 2013. DSIT's level of profitability in 2013 will be affected by anticipated increased development and marketing costs as DSIT looks to expand its product portfolio and its marketing activities and its ability to receive significant new orders for its DDS and PDDS and other Naval solution products during the year.

Energy & Security Sonar Solutions

During 2010, 2011 and 2012, revenues from our Energy & Security Sonar Solutions segment in our DSIT subsidiary were $10.2 million, $9.1 million and $12.2 million, respectively, accounting for approximately 89% , 87% and 90% of DSIT’s revenues for 2010, 2011 and 2012, respectively. The balance of DSIT’s revenues of $1.3 million, $1.4 million and $1.4 million for the years ending December 31, 2010, 2011 and 2012 were derived from DSIT’s other IT and consulting activities which are included in Acorn's Other segment activities.

This segment’s revenues increased by $3.1 million or 34% in 2012 as compared to 2011. In 2011, this segment’s revenues decreased by $1.1 million or 11% as compared to 2010. The increase in revenues in 2012 was due to the receipt of the order for the SBS project in late 2011 and subsequent progress during 2012.

Segment gross profit increased in 2012 as compared to 2011 to $4.5 million from $3.0 million following a decrease in 2011 from 2010 from $4.4 million in 2010 to $3.0 million in 2011. The increased gross profit in 2012 as compared to 2011 was due to increased revenues of our energy and sonar solutions products combined with improved gross margins which increased from 33% in 2011 to 37% in 2012. The improved margins in 2012 were attributable to the previously mentioned SBS project.

We anticipate modest growth in revenue in 2013 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 2013. We do not anticipate recording significant revenues from land based security solutions in 2013.

GridSense

In 2012, GridSense continued to focus on delivering solutions that address the power quality and reliability needs of utilities. Each of GridSense's main product lines (the Line IQ®, Cable IQ®, PowerMonic™ and Transformer IQ®) addresses different aspects of the power delivery system. In addition to its existing product range, GridSense continues to invest in new technology which may lead to the commercialization of new products and revenue drivers for the business. GridSense intends to expand its transformer monitoring capabilities and is expected to launch derivative products related to the TransformerIQ™ in future periods.

In accordance with applicable accounting standards, we began consolidating the results of GridSense beginning May 12, 2010, the date we acquired the outstanding GridSense shares not previously owned by us. Accordingly, full year results for 2010 were not included in Acorn's consolidated financial statements. In 2012, GridSense recorded revenues of $3.7 million, a decrease of $3.5 million from the $7.1 million revenue recorded in 2011. In 2011, GridSense revenues of $7.1 million which more than doubled 2010's full year revenues of $3.3 million.

In 2012, GridSense's U.S. operations contributed approximately $1.9 million to GridSense's total revenue compared to approximately $3.7 million in 2011, a decrease of $1.8 million or 48%. The decrease in revenues is attributable to the June 2011

Table of Contents

order GridSense received from a leading electric utility in the Southeastern USA to use its Transformer IQ® to monitor over 2,000 transformers. The order was completed in 2011. In 2011, this customer provided GridSense with $2.4 million of revenue as compared to $0.2 in 2012. Australia operations contributed approximately $1.7 million of revenues in 2012 compared to $3.4 million in 2011, a decrease of $1.7 million or 49%. The decrease was primarily attributable to approximately $0.9 million of revenue recorded from a single customer in 2011 which provided negligible revenue in 2012. In addition, there were limited sales from three major utility customers in New South Wales due to a restructuring by the State government to bring these three entities under a single new state owned corporation. Management expects spending from these three utilities to return to historical levels in 2013.

GridSense's full year revenues by main product lines for 2010, 2011 and 2012 are as follows:

	2010*	2011	2012
	(in thousands of U.S dollars)		
PowerMonic™	$1,386	$2,891	$1,376
Line IQ®	1,116	1,187	995
Transformer IQ®	89	2,696	693
Other	724	345	598
Total	$3,315	$7,119	$3,662

* 2010 revenues include revenues for the period prior to Acorn's acquisition of GridSense in May 2010.

Sales across all major product lines decreased in 2012 compared to 2011. The decline in revenue in the three major product categories is related to specific events. The decline in PowerMonic™ sales is related to a restructuring by the Australian government bringing three separate power utilities under a single state owned utility. This event delayed purchases in 2012. We expect sales to return to 2011 levels in 2013. The Line IQ® was a product in transition during 2012. The redesigned product was released at the end of 2012 pushing sales into 2013. We expect the volume of Line IQ® sales in 2013 to exceed 2012. Sales of the Transformer IQ® also declined in 2012 as compared to 2011. The main factor was that 2011 included a large deployment of 2,000 units. In 2012, we received an order for over 600 units, but that order did not ship until the first quarter of 2013. During 2012 we continued to track multiple pilot projects representing over a thousand units. These pilots are with customers who have the potential need for tens of thousands of units. While follow-on orders from these pilots did not close in 2012 and the timing of these pilots depend on a number of variables, should our current opportunities become successful in 2013 we would expect sales to exceed 2011 levels.

The Line IQ® product family has introduced a newly redesigned advanced sensor which improves both the functionality and price of its predecessor product. This new sensor was made available to customers in the second half of during 2012. Due to the improved 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.

The Transformer IQ® was commercially introduced during 2010. During 2011, GridSense was awarded a sizeable order by a U.S. utility to monitor a fleet of over 2,000 transformers, validating the technology and market demand. Since fulfillment of this large order, GridSense has generated traction with other utility customers involving various applications of transformer monitoring. Management expects growth from new customers as a number of prospective utility customers are in various stages of evaluating TransformerIQ® in pilots or trials. In addition, increased marketing and sales efforts is expected to expand GridSense's market penetration. During 2012 GridSense was awarded an order of 800 Transformer IQ® units from another U.S. investor owned utility. This order was partially fulfilled in 2012 and is a significant part of GridSense's backlog at December 31, 2012. While this order is significant, GridSense expects large follow on orders as the utility deploys the Transformer IQ® across its entire fleet of

transformers. As GridSense continues to identify and develop new application and uses for the Transformer IQ® platform, the company expects our use base to increase as it expands it pilot program for each of its applications.

While GridSense sees a general improvement in the overall business environment in the utility industry and expects utility spending to continue 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 to over 45 around the globe. We expect that many of these paid pilot projects could result in substantial commercial rollouts in 2013.

Table of Contents

During 2012, gross profit was $1.0 million compared with 2011's gross profit of $3.3 million representing a decrease of $2.4 million or 71% from 2011 to 2012. The decrease in gross profit was attributable to a decrease in both revenues and gross margin. Gross margin decreased in 2012 to 26% compared to 47% in 2011. The decrease in gross margin is attributable to a combination of a number of factors. 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. In addition, 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. In future periods, we expect the gross margin percentage to rebound to historical levels or greater.

During 2012, GridSense recorded $1.6 million of R&D expense as compared to $1.4 million during 2011. Fourth quarter 2012 R& D expense was $0.5 million compared to $0.8 million in the fourth quarter of 2011 and $0.4 million in the third quarter of 2012. During 2012, GridSense added to its engineering team in order to accelerate the development of some key projects that GridSense believes will lead to the generation of new revenues. We expect that R&D expenses going forward will remain consistent with prior years.

During 2012, GridSense recorded approximately $4.6 million of SG&A expense representing an increase of approximately $1.2 million (35%) compared to 2011 SG&A expense of $3.4 million. Fourth quarter SG&A expense of $1.0 million reflects an increase of $0.2 million from the fourth quarter of 2011, but a decrease from the $1.3 million recorded in the third quarter of 2012. The increased quarter-on-quarter SG&A are primarily due to increased salary costs associated with additional sales, marketing, administrative and accounting staff as well as increased advertising and marketing related expenses, increased facility expenses and increased professional fees. The decrease in SG&A in the fourth quarter of 2012 as compared to the third quarter of 2012 was due to a reduction of our headcount in our staff in Australia during the third quarter whose benefits were realized during the fourth quarter. We do not expect SG&A costs to change significantly in coming periods.

We expect that GridSense will continue to require working capital support while it focuses on increasing its sales. Acorn continues to provide funds for GridSense's working capital needs and expects to do so in the future. In the year ending December 31, 2012, Acorn provided GridSense $5.3 million for its working capital needs and an additional $450,000 (out of a committed 2013 investment of $1.5 million - see Liquidity and Capital Resources) in the first two months of 2013. On August 20, 2012, GridSense signed a Loan and Security Agreement with a bank to provide it with up to a $1.0 million revolving line of credit (subject to a calculated borrowing base). GridSense recently made its first draw on the line of credit ($150,000) in February 2013. The line-of-credit is subject to certain financial and other covenants. The availability and amount of any additional investment 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 no comparative results reported for OmniMetrix for the three or twelve month periods ended December 31, 2011. During the period following our acquisition, we reported revenues of $661,000 ($273,000 in the fourth quarter) and an operating loss of $2.6 million ($1.0 million in the fourth quarter) with respect to OmniMetrix activities.

Following further analysis of the recognition of certain revenues and costs of OmniMetrix, we have reclassified first, second and third quarter revenues and costs of sales to defer hardware revenues and cost of sales in accordance with the accounting for multiple elements and recognizing those costs over expected customer life rather than at the delivery of the monitoring unit.

When we acquired OmniMetrix, it had 1,958 PG units generating revenue while at the end of 2012 it had 3,421 PG units generating revenue. Since our acquisition, OmniMetrix has engaged in developing a major marketing and promotion program to increase the penetration rate of its PG monitoring products into the market. We anticipate that this promotion program, under which OmniMetrix provides its PG monitoring units to certain customers below cost and/or provides monitoring services at discounted prices, will provide sufficient monitoring cash flow to cover the working capital requirements of subsidizing PG monitoring units by the end of 2014. This promotional program began in the second half of 2012 and is expected to accelerate rapidly in 2013.

During 2012, OmniMetrix recorded approximately $340,000 of research and development costs. We anticipate that these costs will increase as we expand our product offering and develop solutions for other markets.

During 2012, OmniMetrix recorded approximately $2.5 million of SG&A costs of which approximately $0.8 million was related to sales and marketing. We anticipate that our SG&A costs will increase significantly in 2013 as further develop our

Table of Contents

infrastructure to accommodate expected growth and expand our market presence. OmniMetrix has hired additional personnel since our acquisition growing from 12 employees (one of which was in sales) to 34 employees at February 28, 2013, 12 of which are sales and marketing personnel. While we anticipate continued personnel growth, we expect that the pace of personnel growth will taper off in the coming months.

OmniMetrix currently has no other sources of financing other than its internally generated sales and investments by Acorn. To support OmniMetrix's marketing and promotion program, Acorn has invested $2.5 million into OmniMetrix over the course of 2012 and has committed to investing an additional $3.0 million in 2013 to be used in particular to grow its inventory of PG monitoring units in anticipation of increased deliveries of PG units to customers as a result of its marketing and promotion program.

As of February 28, 2013, OmniMetrix had cash on hand of approximately $65,000. We have no assurance that OmniMetrix will not need additional financing for working capital after we complete our $3.0 million additional investment. Additional financing for OmniMetrix may be in the form of a bank line, new investment by others, a loan or investment by Acorn, or a combination of the above. OmniMetrix has begun discussions with a bank to provide working capital financing: however, there is no assurance that such financing from the 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 investment from us in OmniMetrix may be limited by the working capital needs of our corporate activities and other operating companies.

USSI

During 2012, USSI reported revenues of $1.5 million, an increase of $0.1 million (11%) compared to 2011 revenues of $1.3 million. The increased 2012 revenues compared to 2011 revenues was attributable to the revenue recognized in 2012 on ten different projects, six of which were energy related proof-of-concept projects, whereas in 2011, USSI recognized revenue on just five different projects, only two of which were energy related. In addition, USSI continues to work on a $1.0 million proof-of-concept project for SR2020 Inc., an independent services and technology company dedicated to the application of advanced borehole seismic methods. The SR2020 project is for a one-hundred level Ultra-High Sensitivity fiber optic based sensor system to be used for down-hole seismic imaging and monitoring in the oil and gas industry. The system will be used to provide improved down-hole seismic imaging of both conventional and unconventional oil and gas fields with bottom hole temperatures up to 200 degrees Celsius throughout the United States and Canada.

The revenue recognized in 2012 included two large proof of concept projects: 1) a commercial high temperature down-hole fiber-optic seismic array (40 - level array) which is designed for monitoring wells that use the latest unconventional oil and gas extraction technique known as hydrofracking, and 2) an Ultra-High Sensitivity fiber-optic based marine seismic array for oil and gas exploration to an international service provider for use as a marine array to aid in the collection and interpretation of data in the hostile environment of deep sea oil and gas operations. These two contracts contributed approximately $840,000 to USSI's 2012 revenue.

USSI revenue continues to be erratic due to the number and size of projects that USSI is able to complete and deliver during the quarterly periods. Fourth quarter 2012 revenues of $147,000 reflects a $286,000 decrease compared to fourth quarter 2011 revenues of $433,000. The decrease in revenues is primarily attributable to technical difficulties in the SR2020 project which did not allow for delivery during the quarter. Those technical difficulties have been cleared and delivery is expected in the first half of 2013.

USSI's full year revenues by main markets for 2010, 2011 and 2012 are as follows:

	2010*	2011	2012

	(in thousands of U.S dollars)		
Oil & Gas	$120	$955	$1,197
Commercial Security	106	226	267
Defense	219	135	—
Total	$445	$1,316	$1,464

* 2010 revenues include revenues for the period prior to Acorn's effective acquisition of USSI in February 2010.

Table of Contents

During 2012, gross profit continued to be negative ($1.0 million) as it was during 2011 ($98,000). The negative gross profit and its increase from 2011 is primarily due to large amounts of up front NRE that accompanied the production of the first commercial high temperature down-hole fiber-optic seismic array (40 - level array). Similar NRE accompanied USSI's other proof of concept projects in 2012. USSI's recorded negative gross profit in the fourth quarter of 2012 was $249,000 as compared to third quarter 2012 negative gross profit of $167,000. The increase in USSI's negative gross profit was attributable to NRE associated with proof-of-concept orders delivered in the fourth quarter.

USSI is continuing to work to develop cost cutting measures for the manufacturing of its commercial products, including investment in equipment that will make manufacturing more efficient and improving the production process and product designs that will ultimately result in less man-hours required for each product sold. We cannot at this time determine when the impact of these improved production processes and product designs will ultimately produce improved gross margins as each of our proof-of-concept projects has its own unique NRE design costs associated with it. We believe that upon receipt of a follow-up order on one of our proof-of-concept projects, we will realize significantly greater efficiencies in production for that product.

During 2012, USSI recorded approximately $3.6 million of research and development ("R&D") expense as compared to $1.1 million during 2011. During the fourth quarter of 2012, USSI recorded approximately $0.9 million of R&D expense as compared to $0.4 million in the fourth quarter 2011. The increased R&D expense is due to an increase in engineering headcount as well as an increase in R&D materials used in product development. R&D expense levels during 2012 were consistently at approximately $0.9 million per quarter. We expect R&D expense to continue at current levels as USSI continues to internally develop more efficient production versions of its current products and to continue its development of multiple product offerings.

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 anticipates receipt of approximately 40% of the grant based on the expected allocation of project costs between DSIT and USSI. The first advance payment from the BIRD Foundation of approximately $70,000 was received in October 2012. 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 2012, USSI recorded approximately $3.8 million of SG&A expense representing an increase of approximately $2.2 million (136%) compared to 2011. Fourth quarter 2012 SG&A expense ($1.2 million) also reflects an increase of $0.8 million over fourth quarter 2011 SG&A expense of $0.5 million. The increased SG&A costs are due to increased sales and marketing activities combined with the costs of additional administrative personnel. In addition, SG&A costs of 2012 include approximately $0.3 million of non-cash stock compensation expense associated with USSI's stock option plan ($0.1 million in the fourth quarter of 2012). Excluding non-cash stock compensation costs, we expect near term SG&A costs to approximate those for the third quarter of 2012.

As at December 31, 2012, USSI's backlog of projects was approximately $1.0 million which is comprised of its SR2020 proof-of-concept project. USSI anticipates recognizing the revenue associated with this projects over the next two quarters. Actual revenue recognition for this project may be over a longer period of time depending upon USSI's ability to obtain delivery of raw materials with long lead times on a timely basis from its suppliers and control NRE costs. 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 2012 and prior years as well as follow-on projects from our current "proof-of-concept" projects. We believe that each of these

proof-of-concept projects has the potential for annual multi-million dollar follow-up orders as early as the second half of 2013. In 2012, we grew our employee base from 28 full-time employees (inclusive of consultants) at the end of 2011 to 43 full-time employees (inclusive of consultants) as of February 28, 2013. We also anticipate a leveling off of our growing personnel costs as the pace of our personnel growth is expected to slow down.

We expect that 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 2012 we invested $10.25 million in USSI to support its working capital requirements and invested an additional $2.5 million in February 2013 under our 2013 USSI Purchase Agreement (see "Recent Developments"). We anticipate that we will purchase an additional $2.5 million in USSI Preferred Stock in rhe next few months. 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. While USSI has reached agreement with a bank for a $1 million line-of-credit in 2012, and USSI has in February 2013 USSI has accessed $500,000 of that line-of-credit, we have no assurance that USSI's future capital needs will not exceed the amount of the credit line or the amounts of Acorn's investment commitment 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 have no assurance whether and to what extent USSI will have access to the entire $1.0 million

Table of Contents

bank facility given that the availability is subject to certain financial and other covenants. USSI may need to raise 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. If additional funds are raised through the direct issuance of equity or convertible debt securities to third parties, Acorn's percentage ownership of USSI may be reduced.

In addition, should additional funds be needed, there can be no assurance that additional financing will be available on terms acceptable to USSI. If funds are not available, or are not available on acceptable terms, USSI may not be able to fund its growth, 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.

Corporate

Corporate general and administrative expense in 2012 reflected a $1.3 million increase to $5.3 million as compared to $3.9 million of expense in 2011. The increase is due primarily to increased investor relation activities and personnel costs and bonuses as well as professional fees and costs incurred associated with our acquisition of OmniMetrix (approximately $300,000) in February 2012.

Fourth quarter 2012 corporate general and administrative expense was $1.2 million reflecting a decrease of approximately $0.2 million compared to the fourth quarter of 2011. The decrease in fourth quarter 2012 corporate general and administrative expense compared to fourth quarter 2011's balance was due primarily to bonuses paid in the fourth quarter of 2011 with respect to the sale of CoaLogix partially offset by increased investor relation costs in the fourth quarter of 2012. Fourth quarter 2012 corporate general and administrative expense was virtually unchanged compared to the third and second quarter 2012 corporate general and administrative expense (approximately $1.3 million in each quarter). We expect our corporate general and administrative costs to decrease slightly from its current levels as we expect to incur less investor relation expenses going forward.

In 2012, Acorn recorded an income tax benefit of approximately $3.2 million ($0.6 million with respect to the fourth quarter of 2012) with respect to a net operating loss carryback of its expected consolidated tax loss in 2012.

Table of Contents

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, 2012, we no longer have cost or equity basis investments.

In the year ending December 31, 2010, we began consolidating the results of USSI effective February 23, 2010 following the signing of option agreements with USSI and certain shareholders of USSI whereby we received options to acquire approximately 87% of the company (see Note 3(c) to our Consolidated Financial Statements). We began consolidating the results of GridSense on May 12, 2010 following our acquisition of the approximately 70% of the company we did not previously own (see Note 3(b)(i) to our Consolidated Financial Statements). 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 December 17, 2010, we ceased consolidating the results of Coreworx following the sale of all of our common stock in the company to a management buyout group consisting of Coreworx management and certain employees and other investors (see Note 5(b) 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 Note 4 to our Consolidated Financial Statements). The results of CoaLogix and Coreworx are presented as discontinued operations for all the periods since our acquisition of them in November 2007 and August 2008, respectively.

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.

Table of Contents

Goodwill and Intangibles

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

Our goodwill at December 31, 2012 was approximately $6.6 million representing approximately 10% of our total assets. Our goodwill is allocated to our segments as follows: Energy & Security Sonar Solutions – approximately$0.5 million, GridSense – approximately $2.8 million, USSI – approximately $1.4 million, Power Generation - $1.5 million and Cathodic Protection (which is included in our "Other" segment) - approximately $0.4 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, 2012 was approximately $9.6 million representing approximately 14.2% of our total assets. The composition of our intangible assets at December 31, 2012 consisted of Naval Technologies in our Energy & Security Sonar Solutions segment ($0.2 million, net of accumulated amortization), Software and Customer Relationships in our GridSense segment ($1.9 million, net of accumulated amortization) and Sensor Technologies and an acquired license in our USSI segment ($2.3 million, net of accumulated amortization), Technologies, customer relationships and non-compete agreements in our Power Generation segment ($4.1 million, net of accumulated amortization) and Technologies and customer relationships related to our Cathodic Protection activities which are included in our "Other" segment ($1.1 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, USSI 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 is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011, and early adoption is permitted. As discussed more fully in Note 11 to the Consolidated Financial Statements, we early 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.

Table of Contents

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

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

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

For 2012, 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 2012 goodwill impairment test for each of our USSI, Energy & Security Sonar Solutions, Power Generation and Cathodic Protection (which is included in our "Other" segment) 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.

For our GridSense reporting unit, we quantitatively evaluated the goodwill for impairment and determined that the fair values of the 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 approximately $1.1 million or 17%. Should certain assumptions used in the development of the fair values of our reporting unit change in the coming quarters, we may be required to recognize future goodwill impairment.

Revenue Recognition

Revenue from time-and-materials service contracts, maintenance agreements and other services is recognized as services are provided.

In the year ended December 31, 2012, we recorded approximately $13.6 million of revenues representing approximately 70% of our consolidated revenues in our DSIT subsidiary. In 2012, DSIT derived approximately $12.0 million or 88% 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 2012, GridSense recorded approximately $3.7 million of revenue representing approximately 19% 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, when all significant contractual obligations have been satisfied and collection is reasonably

Table of Contents

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 2012, USSI recorded approximately $1.5 million of revenue representing approximately 8% 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 2012, OmniMetrix recorded approximately $0.7 million of revenue representing approximately 3% or our consolidated revenue for the year. Of the $0.7 million of 2012 revenue, $0.2 million or 27% represents the revenue from the sales of monitoring units and $0.5 million or 73% represents the revenue recognized from the monitoring fees.

Sales of OmniMetrix monitoring systems may 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) once delivery, installation and customer acceptance is completed. 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, 2012, 70% of our consolidated revenues (55% and 80% in the years ended December 31, 2011 and 2010 respectively) came from our DSIT subsidiary while 9% of our consolidated revenue in the year ended December 31, 2011 (18% and 11% in the years ended December 31, 2011 and 2010, 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 and 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 2012 was based on the historical volatility of the market price of the Company's common stock over a period equal to the estimated weighted average life 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. 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

Table of Contents

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 administrated 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.

For each of the years ended December 31, 2012, 2011 and 2010, we incurred stock compensation expense with respect to options of approximately $0.9 million, $0.4 million and $0.7 million, respectively.

See Note 16(e) to the consolidated financial statements for the assumptions used to calculate the fair value of share-based employee compensation.

Table of Contents

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,									
	2008		2009		2010		2011		2012	
Revenues	100	%	100	%	100	%	100	%	100	%
Cost of sales	68		57		58		63		73	
Gross profit	32		43		42		37		27	
Research and development expenses	3		5		7		16		34	
Selling, general and administrative expenses	76		62		73		63		100	
Impairments	44		1		8		—		—	
Operating loss	(91	)	(25	)	(46	)	(42	)	(107	)
Finance expense, net	(35	)	(1	)	(2	)	—		—	
Gain on early redemption of convertible debentures	15		—		—		—		—	
Gain on sale of shares in Comverge	107		15		—		—		—	
Gain on investment in GridSense	—		—		9		—		—	
Distributions received from EnerTech	—		—		1		—		—	
Gain on sale of HangXing	—		—		—		3		—	
Loss on sale of EnerTech	—		—		(13	)	—		—	
Income (loss) from operations before taxes on income	(3	)	(10	)	(50	)	(40	)	(107	)
Income tax benefit (expense)	(4	)	8		(5	)	67		15	
Income (loss) from operations of the Company and its consolidated subsidiaries	(7	)	(3	)	(55	)	27		(91	)
Share of income (losses) in Paketeria	(19	)	3		—		—		—	
Share of losses in GridSense	(11	)	(1	)	—		—		—	
Income (loss) from continuing operations	(37	)	(1	)	(55	)	27		(91	)
In-process research and development expense recorded in acquisition of discontinued operation	(30	)	—		—		—		—	
Loss from discontinued operations, net of income taxes	(32	)	(66	)	(126	)	(10	)	—	
Gain on the sale of discontinued operations, net of income taxes	—		—		—		164		—	
Non-controlling interest share of loss from discontinued operations	3		7		—		3		—	
Net income (loss)	(96	)	(60	)	(181	)	184		(91	)
Net income (loss) attributable to non-controlling interests	—		(2	)	4		3		5	
Net income (loss) attributable to Acorn Energy, Inc.	(96	)	(62	)	(177	)	187		(86	)

The following table sets forth certain information with respect to revenues and profits of our reportable business segments for the years ended December 31, 2012, 2011 and 2010, including the percentages of revenues attributable to such segments. (See Note 20 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.

Table of Contents

	Energy & Security Sonar Solutions	GridSense	USSI	Power Generation Monitoring	Other	Total
	(in thousands, except percentages)					
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
Year ended December 31, 2010:						
Revenues from external customers	$10,179	$2,382	$405	$—	$1,278	$14,244
Percentage of total revenues from external customers	71 %	17 %	3 %	— %	9 %	100 %
Segment gross profit	4,380	1,172	23	—	469	6,044
Impairments	—	1,166	—	—	—	1,166

* includes the impairment charge of $1,166

Table of Contents

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) 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.

Table of Contents

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.

2011 COMPARED TO 2010

Revenues. Revenues increased by $4.7 million or 33% to $18.9 million in 2011 as compared to revenues of $14.2 million in 2010. DSIT’s revenue decreased $1.0 million (8%) from $11.5 million to $10.5 million. GridSense's revenue for 2011 was $7.1 million compared to $2.4 million in 2010 since we began consolidating results in May 2010. USSI's revenue for 2011 was $1.3 million compared to $0.4 million in 2010 since we began consolidating its results in February 2010.

The decrease in DSIT's Energy & Security Sonar Solutions revenues was due to decreased revenue from DSIT's AquaShield™ projects which resulted from a project which was completed in late 2010. GridSense's increased revenue was attributable to increased revenue in both its U.S and Australian operations. The increased revenue in its U.S. operations was due to an order GridSense received in June 2011 from a leading electric utility in the Southeastern USA to use GridSense's TransformerIQ® to monitor over 2,000 transformers in one metropolitan county of its service territory. The increased revenues in its Australian operations was attributable to the adoption of new products such as a new PowerMonic™ version capable of remote communications which was launched during the year. USSI's increase in revenues was attributable to its receipt and delivery on several "proof-of-concept" projects for its major product lines (4D reservoir & shale gas monitoring, fiber optic perimeter security systems and underwater security systems for diver detection) throughout 2011.

Gross profit. Gross profit in 2011 increased by $0.9 million or 14%, to $6.9 million from $6.0 million in 2010. DSIT recorded decreased gross profits (approximately $1.2 million or 24%). GridSense's gross profit for 2011 was $3.3 million compared to $1.2 million in 2010 since we began consolidating its results in May 2010. USSI's gross profit for 2011 was a negative $98,000 compared to a marginal gross profit of $23,000 in 2010 since we began consolidating its results in February 2010.

The decrease in DSIT gross profits was attributable to both decreased revenues and a decrease in consolidated gross margins from 42% in 2010 to 35% in 2011. DSIT's decline in gross margins was due to the slow-down of work on an AquaShield™ DDS project which caused deterioration in the gross margin associated with that project as well as decreased margins in a number of non-Naval projects in our Energy & Sonar Security Solutions segment which encountered technological difficulties to bring those projects to completion. GridSense's increase in gross profits was wholly attributable to its increased revenues as its gross margin declined slightly from 49% in 2010 to 47% in 2011. GridSense's decreased gross margin is due to non-recurring production set up costs related to large initial production batch runs of certain products. USSI's negative gross profit in 2011 is due to negative margins incurred as it works through its “proof-of-concept” contracts and as it transitions from development to production.

Research and development expenses (“R&D”). R&D of $3.0 million in 2011 reflects an increase of $2.0 million or 210% as compared to 2010's R&D of $1.0 million. Our R&D reflects significant increases by both GridSense and USSI who recorded R&D of $1.4 million and $1.1 million, respectively, in 2011 compared to $0.3 million and $0.4 in

2010 in the period after our acquisition of them.

Selling, general and administrative expenses ("SG&A"). SG&A increased by $1.5 million from $10.4 million in 2010 to $11.9 million in 2011. DSIT's SG&A costs in 2010 increased by $0.1 million to $3.1 million in 2011. Corporate general and administrative costs decreased by $0.4 million in 2011 compared to 2010 to $3.9 million. In addition, our 2011 SG&A includes full year SG&A costs by GridSense and USSI ($3.4 million and $1.6 million, respectively) whereas 2010's SG&A costs ($2.3 million and $0.8 million, respectively) were only for the period following our acquisition of them.

DSIT's increased SG&A costs primarily reflect increased marketing costs. Decreased corporate general and administrative costs primarily reflect decreased professional fees associated with certain 2010 activities as well as decreased compensation costs primarily attributable to reduced stock compensation expense in 2011. SG&A costs at GridSense were relatively unchanged on a pro-rata basis, while increased SG&A costs at USSI were primarily driven by the growth of the company's infrastructure to handle anticipated sales growth.

Table of Contents

Gain on sale of HangXing. In March 2011, we sold our 25% interest in HangXing International Automation Engineering Co. Ltd. (“HangXing”) back to the majority owner, China Aero-Polytechnology Establishment for $492,000. Our investment of approximately $250,000 in HangXing was made in 1995. The investment was entirely written-off in 1999.

Income tax benefit (expense). In 2011, the $12.8 million of income tax benefit recorded is primarily due to the release of a valuation allowance on previously reserved deferred tax assets of approximately $14.6 million of deferred tax assets as a result of the current period taxable gain on the sale of CoaLogix. The deferred tax assets were primarily related to recognition of previous years’ net losses. This was offset by current tax expense of approximately $1.8 million.

Loss from discontinued operations, net of income taxes. In December 2010, we entered into an agreement to sell all of our common stock in Coreworx to a management buyout group consisting of Coreworx’ management and certain employees and other investors. As a result, all of Coreworx’s activity for 2010 (a net loss of $19.5 million) is presented as a loss from discontinued operations, net of income taxes as is the $1.8 million gain we recorded on the deconsolidation of Coreworx. In addition, as a result of the sale of all of our common stock in CoaLogix, all of CoaLogix’ activity for 2011 (a net loss prior to attribution to non-controlling interests) of $1.9 million and $0.3 million for the years ended December 31, 2011 and 2010, respectively, are also presented as a loss from discontinued operations, net of income taxes.

Gain on the sale of discontinued operations, net of income taxes. In August 2011, we completed the sale of our majority owned CoaLogix Inc. subsidiary 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 million (subject to certain adjustments) in cash. We received approximately $61.9 million in consideration for our CoaLogix shares, of which approximately $6.3 million was deposited into various escrow accounts, of which approximately $0.3 million was released in the fourth quarter of 2011 and the balance was released in the third quarter of 2012. During the fourth quarter of 2011, we recorded an additional gain on the sale of CoaLogix of approximately $0.5 million following our receipt of an additional $0.5 million as part of a working capital adjustment. In connection with the sale of our shares of the common stock of CoaLogix, we recorded a net gain of approximately $31.0 million (a gain of $47.0 million net of income taxes of $16.0 million).

Net income (loss). We had net income of $35.4 million in 2011 compared with net loss of $25.1 million in 2010. Our net income in 2011 attributable to gains of $31.0 million and $0.5 million recorded on the sales of CoaLogix and HangXing, respectively. Those gains were offset by losses from our operating companies, corporate operating and tax expenses and losses recorded with respect to discontinued operations of our former CoaLogix subsidiary. GridSense and USSI losses for the year were $1.4 million and $2.8 million, respectively. In addition we recorded corporate operating expenses of $3.9 million and losses from discontinued operations of $1.9 million. Those losses were partially offset by an income tax benefit of $12.8 million, DSIT's income of $0.1 million, the non-controlling interest share of our subsidiary losses of $0.5 million and the non-controlling interest share of CoaLogix losses of $0.5 million.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2012, we had working capital of $36.0 million, including $26.1 million of cash and cash equivalents, and current restricted deposits of $0.7 million. Net cash and cash equivalents decreased during the year

ended December 31, 2012 by $8.1 million. Approximately $22.2 million was used in operating activities of our continuing operations during the year.

The primary use of cash in operating activities during 2012 was the cash used in operations by our subsidiaries ($8.7 million, $5.2 million, $2.2 million and $1.5 million used by USSI, GridSense, OmniMetrix and DSIT, respectively) in their operations combined with the $4.6 million of cash used in our corporate operating activities.

Cash provided by investment activities of $16.5 million was due to the net cash provided from our short-term deposits ($18.0 million), the cash received following the release of the escrow deposit related to our sale of CoaLogix in 2011 ($6.0 million) and by the release, net of approximately $1.7 million of restricted deposits during 2012. These cash receipts were partially offset by the cash used in the acquisition of OmniMetrix ($7.8 million), the acquisition of property and equipment and a license ($0.8 million) and amounts used to fund severance liabilities ($0.5 million).

Net cash of $2.5 million was used in financing activities, primarily from the payment of dividends during 2012 ($3.2 million) and the repayment of short and long-term debt ($0.7 million) which was partially offset by the proceeds from the exercise of options ($1.3 million).

Table of Contents

At December 31, 2012, DSIT had approximately $963,000 of unrestricted cash in banks and NIS 4.0 million (approximately $1.1 million) in Israeli credit lines available to it from two Israeli banks (approximately $535,000 from each bank), none of which was then being used. The lines-of-credit are subject to maintaining certain financial covenants. At December 31, 2012, DSIT was in compliance with its financial covenants.
As at December 31, 2012, DSIT also had an outstanding term loan from an Israeli bank in the amount of approximately $144,000. The loan is denominated in NIS and bears interest at the rate of the Israeli prime rate per annum plus 0.9%. The loan is to be repaid in equal payments of approximately $12,000 per month (principal and interest) through December 2013.
As collateral for the term-loan, DSIT has deposited with an Israeli bank approximately $43,000 as a current restricted deposit. In addition to this restricted deposit, DSIT has also deposited with two Israeli banks approximately $770,000 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.
During the period from May 1, 2012 to October 31, 2012, Acorn advanced $2.0 million to DSIT in contemplation of an investment agreement for a planned expansion of its marketing and development programs. On February 28, 2012, DSIT had approximately $2.8 million of cash of which approximately $0.8 million was restricted ($0.7 million current and $0.1 million non-current) and was not utilizing any of its lines-of-credit. DSIT and Acorn are currently negotiating an agreement pursuant to which Acorn would converted a prior loan and accrued interest into additional ordinary (common) shares of DSIT. Acorn would also convert $2.8 million of loans and advances and make a further investment in DSIT of $2.2 million to purchase shares the DSIT Preferred Stock. 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, continued utilization of its lines-of-credit, the expected investment from Acorn and its operating results.

We expect that GridSense will continue to require working capital support while it focuses on increasing its sales. Acorn continues to provide funds for GridSense's working capital needs and expects to do so in the future. In the period from January 1 to December 31, 2012, Acorn provided GridSense $5.3 million for its working capital needs. On February 26, 2013, we committed to fund an additional $1.5 million to GridSense (the "GridSense Commitment"), of which $450,000 has already been funded in 2013 through February 28, 2013. The GridSense Commitment will be funded in increments as we deem necessary during the balance of 2013.

On August 20, 2012, GridSense signed a Loan and Security Agreement with a bank to provide it with up to a $1.0 million revolving line of credit (subject to a calculated borrowing base). GridSense made its first draw on the line of credit in February 2013 ($150,000). 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, 2012) or 6.5%. The line-of-credit is also subject to certain financial covenants.

On February 28, 2013, GridSense had cash on hand of approximately $35,000. We have no assurance that GridSense will increase its sales or reduce its need for additional financing to support its working capital needs following the remaining funding by us under the GridSense Commitment. Additional working capital support may be in the form of an additional or expanded bank line, new investment by others, additional investment or 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 investment from us in GridSense may be limited by the working capital needs of our corporate activities and other operating companies.

We expect that USSI will continue to require working capital support as it continues to work on transitioning from development to production and as it continues to work on refining its manufacturing capabilities. USSI currently has no other sources of financing other than its internally generated sales and investments by Acorn. Acorn continues to

provide funds for USSI's working capital needs and expects to do so in the future. During 2012, we invested a total of $10.25 million in USSI; $5.0 million of which was a purchase of USSI Preferred Stock in accordance with the USSI Purchase Agreement and an additional $5.0 million purchase of USSI Preferred Stock in accordance with the Summer USSI Purchase Agreement. On February 26, 2013, we agreed to purchased an additional $5.0 million of USSI Preferred Stock in accordance with the 2013 USSI Purchase Agreement (see Recent Developments) of which $2.5 million was immediately funded. Following this investment, on February 28, 2013, USSI had cash on hand of approximately $2.6 million.

On November 8, 2012, USSI signed a Loan and Security Agreement with a bank to provide it with up to a $1.0 million non-formula revolving line of credit. The Loan and Security Agreement expires on November 7, 2013. In February 2013, USSI withdrew $500,000 on the non-formula revolving line of credit. Advances from the line-of-credit bear interest at a variable annual

Table of Contents

interest rate equal to the greater of 1.0% above the Prime Rate in effect (3.25% at December 31, 2012) or 6.5%. The line-of-credit is also subject to certain financial covenants.

We have no assurance that USSI will not need additional financing from time-to-time to finance its working capital needs. Additional financing for USSI may be in the form of an additional or expanded bank line, new investment by others, a loan or investment by Acorn, or a combination of the above. While USSI's cash needs cannot be determined at this time, we anticipate the need to make on-going investments in order to support USSI's operations through the end of 2013. 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 the financing requirements of our other operating companies.

OmniMetrix currently has no other sources of financing other than its internally generated sales and investments by Acorn. To support OmniMetrix's marketing and promotion program, Acorn has invested $2.5 million into OmniMetrix during 2012. On February 26, 2013, we committed to fund an additional $3.0 million to OmniMetrix, payable in increments as we deem necessary during the balance of 2013. As of February 28, 2013, OmniMetrix had cash on hand of approximately $65,000. OmniMetrix has begun discussions with a bank to provide working capital financing; however, there is no assurance that such financing from the bank or any other party will be available in sufficient amounts, in a timely manner or on acceptable terms. We have no assurance that OmniMetrix will not need additional financing for working capital after we complete our $3.0 million investment under the OmniMetrix Commitment. Additional financing for OmniMetrix may be in the form of a bank line, new investment by others, a loan or investment by Acorn, or a combination of the above. There is no assurance that such support will be available from such sources in sufficient amounts, in a timely manner or on acceptable terms. The availability and amount of any additional investment from us in OmniMetrix may be limited by the working capital needs of our corporate activities and other operating companies.

As of December 31, 2012, the Company had approximately $8.9 million of unrestricted cash and cash equivalents held in banks outside the United States ($8.8 million in banks in Israel, of which $7.1 million belongs to Acorn Energy and $1.7 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 $8.9 million of unrestricted cash and cash equivalents held in banks outside the United States were to be repatriated, we would expect that approximately $1.7 million of that cash to be subject to additional taxation upon repatriation.

As at February 28, 2013, the Company's corporate operations (not including cash at any of our subsidiaries) had a total of approximately $18.9 million in cash and cash equivalents reflecting a $3.8 million decrease from the December 31, 2012 balance of $22.7 million. The decrease in corporate cash is primarily due to the $2.5 million invested in USSI under the 2013 USSI Purchase Agreement, $450,000 transferred to GridSense under the GridSense Commitment and corporate expenses.

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. In order to position ourselves to take advantage of potential market expansion or complimentary acquisitions for our existing businesses, we are contemplating whether and on what terms we may offer additional securities for sale in the future. We currently expect that we may conduct such an offering sometime during 2013, the amount and terms of which cannot be determined at this time.

Contractual Obligations and Commitments

The table below provides information concerning obligations under certain categories of our contractual obligations as of December 31, 2012.

Table of Contents

CASH PAYMENTS DUE TO CONTRACTUAL OBLIGATIONS

	Years Ending December 31, (in thousands)				
	Total	2013	2014-2015	2016-2017	2018 and thereafter
Bank and other debt, utilized lines-of-credit and capital leases	$153	$153	$—	$—	$—
Operating leases	2,380	880	904	354	242
Potential severance obligations (1)	4,491	—	1,498	—	2,993
Minimum royalty payments (2) (3) (4)	450	50	100	100	200
Purchase commitments (5)	—	—	—	—	—
Total contractual cash obligations	$7,474	$1,083	$2,502	$454	$3,435

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, 2012, we accrued a total of $4.5 million for potential severance obligations to our Israeli employees of which approximately $3.2 million was funded.

(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) One of the employees of GridSense is entitled to a royalty of 6% of the sales of a particular product in excess of cumulative product sales of $4.0 million. To date, cumulative sales of this product stand at approximately $2.2 million. The above table does not include any royalties that may be paid under this arrangement.

(5) OmniMetrix has an agreement with a third party equipment assembler, pursuant to which it commits on a quarterly basis to purchase a specified amount of product based upon its quarterly submitted forecasted needs. The table above does not reflect OmniMetrix's obligations under the agreement as these amount cannot be determined.

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, 2012, such guarantees totaled approximately $2.6 million and were due to expire

in 2013 and 2014. As security for a portion of these guarantees, DSIT has deposited approximately $0.8 million which is shown as restricted cash on our Consolidated Balance Sheets ($0.7 million as current restricted cash and $0.1 million as non-current restricted cash). 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 2013 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 ($1.1 million available) and long-term debt incurred ($143,000 balance at December 31, 2012) to finance our operations in Israel. Such lines-

Table of Contents

of-credit and loan bear interest at interest rates that are linked to the Israeli prime rate (3.25% at December 31, 2012 and 4.25% at December 31, 2011).

Our non-US dollar monetary assets and liabilities (net liabilities of approximately $0.4 million at December 31, 2012) 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 2013, we expect an increasing 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 2012 the appreciation of the NIS against the dollar was 2.3% while in 2011 the dollar appreciated against the NIS by 7.6%.

As of December 31, 2012, 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. DSIT purchases forward contracts to attempt to reduce its exposure to currency fluctuations.

In addition, our non-US dollar assets and liabilities (net liability of approximately $0.1 million at December 31, 2012) 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 2012, the Australian dollar appreciated against the U.S. dollar by 2.2%. In 2011 the Australian dollar was virtually unchanged against the U.S. dollar.

Table of Contents

SUMMARY QUARTERLY FINANCIAL DATA (Unaudited)

The following table sets forth certain of our unaudited quarterly consolidated financial information for the years ended December 31, 2011 and 2012. This information should be read in conjunction with our Consolidated Financial Statements and the notes thereto.

	2011				2012			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter*	Second Quarter*	Third Quarter*	Fourth Quarter
	(in thousands, except per share amounts)							
Revenues	$3,095	$4,107	$5,051	$6,675	$4,183	$5,727	$4,713	$4,796
Cost of sales	1,921	2,760	3,244	4,090	2,983	4,241	3,225	3,767
Gross profit	1,174	1,347	1,807	2,585	1,200	1,486	1,488	1,029
Research and development expenses, net	490	384	713	1,408	1,318	1,699	1,754	1,819
Selling, general and administrative expenses	2,743	2,724	3,142	3,343	4,229	4,390	5,272	5,470
Operating loss	(2,059)	(1,761)	(2,048)	(2,166)	(4,347)	(4,603)	(5,538)	(6,260)
Finance income (expense), net	(117)	(100)	262	(71)	(23)	130	(160)	110
Gain on sale of HangXing	492	—	—	—	—	—	—	—
Income (loss) before taxes on income	(1,684)	(1,861)	(1,786)	(2,237)	(4,370)	(4,473)	(5,698)	(6,150)
Income tax benefit (expense)	(65)	26	12,111	695	(75)	1,064	1,487	480
Net income (loss) from continuing operations	(1,749)	(1,835)	10,325	(1,542)	(4,445)	(3,409)	(4,211)	(5,670)
Gain on the sale of CoaLogix, net of income taxes	—	—	30,683	386	—	—	—	—
Loss from discontinued operations, net of income taxes	(836)	(568)	(544)	—	—	—	—	—
Non-controlling interests share of loss from discontinued operations	232	157	151	—	—	—	—	—
Net income (loss)	(2,353)	(2,246)	40,615	(1,156)	(4,445)	(3,409)	(4,211)	(5,670)
Net (income) loss attributable to non-controlling interests	136	167	181	65	256	205	276	287
Net income (loss) attributable to Acorn Energy, Inc	$(2,217)	$(2,079)	$40,796	$(1,091)	$(4,189)	$(3,204)	$(3,935)	$(5,383)
Basic net income (loss) per share attributable to Acorn Energy, Inc. shareholders:								
From continuing operations	$(0.10)	$(0.10)	$0.60	$(0.08)	$(0.24)	$(0.18)	$(0.22)	$(0.30)
From discontinued operations	(0.03)	(0.02)	1.73	0.02	—	—	—	—
Total attributable to Acorn Energy, Inc. shareholders.	$(0.13)	$(0.12)	$2.33	$(0.06)	$(0.24)	$(0.18)	$(0.22)	$(0.30)
Diluted net income (loss) per share attributable to Acorn Energy, Inc. shareholders:								
From continuing operations	$(0.10)	$(0.10)	$0.59	$(0.08)	$(0.24)	$(0.18)	$(0.22)	$(0.30)
From discontinued operations	(0.03)	(0.02)	1.70	0.02	—	—	—	—
	$(0.13)	$(0.12)	$2.29	$(0.06)	$(0.24)	$(0.18)	$(0.22)	$(0.30)

Total attributable to Acorn Energy, Inc. shareholders.								
Weighted average number of shares outstanding attributable to Acorn Energy, Inc. – basic	17,449	17,489	17,508	17,521	17,680	17,912	17,934	18,038
Weighted average number of shares outstanding attributable to Acorn Energy, Inc. – diluted	17,449	17,489	17,810	17,521	17,680	17,912	17,934	18,038

* Following further analysis of the recognition of certain revenues and costs of OmniMetrix, we have reclassified first, second and third quarter revenues and costs of sales to defer hardware revenues and cost of sales in accordance with the accounting for multiple elements and recognizing those costs over expected customer life rather than at the delivery of the monitoring unit.

Table of Contents

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 2012 the NIS strengthened in relation to the U.S. dollar by 2.3%. In 2012 the Australian dollar strengthened relative to the U.S. dollar by 2.2%. 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, 2012, a 10% weakening of the U.S. dollar against the NIS and against the Australian dollar would have increased stockholders' equity by approximately $470,000 (arising from a CTA adjustment of approximately $520,000 and net exchange losses of approximately $50,000). These hypothetical changes are based on adjusting the December 31, 2012 exchange rates by 10%.

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, 2012, DSIT had entered into monthly forward contracts (through June 2013) to sell U.S. dollars ($315,000 per month at exchange rates ranging from 3.92 to 4.00) in order to mitigate risk to its NIS denominated expenses.

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. Fair value for long-term debt and long-term deposits are estimated based on the current rates offered to us for debt and deposits with similar terms and remaining maturities. The fair value of our long-term debt and non-current restricted deposits are not materially different from their book values.

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 32% of the trade accounts receivable at December 31, 2012 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 71% of the balance in unbilled revenue at December 31, 2012 was due from two customers that when billed, pay their trade receivables over usual credit periods. Credit risk with respect to the balance of unbilled revenue is generally diversified due to the number of entities comprising our customer base.

65

Table of Contents

Interest Rate Risk

In the normal course of business, we are exposed to fluctuations in interest rates on our lines-of-credit ($1.1 million available, none of which was being utilized at December 31, 2012) and long-term debt incurred ($143,000 balance at December 31, 2012) 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 (3.25% at December 31, 2012 and 4.25% at December 31, 2011). In addition, the lines-of-credit at our GridSense and USSI subsidiaries ($1.0 million available for each, none of which was being utilized at December 31, 2012) bear interest at interest rates that are linked to the Prime Rate - 3.5% at December 31, 2012.

Table of Contents

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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

Table of Contents

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

None.

Table of Contents

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 has excluded OmniMetrix from its assessment of internal control over financial reporting as of December 31, 2012, because ownership was acquired during 2012. OmniMetrix represented approximately 16% of Acorn's consolidated total assets and approximately 3% of Acorn's consolidated net revenue as of, and for the year ended, December 31, 2012.

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 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. Based on our evaluation, management has concluded that our internal control over financial reporting was effective as of December 31, 2012. 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, 2012, 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.

Table of Contents

ITEM 9B. OTHER INFORMATION

None.

Table of Contents

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	61	Director, Chairman of the Board, Chairman of our Nominating Committee and member of our Compensation Committee
John A. Moore	47	Director, President and Chief Executive Officer
Richard J. Giacco	60	Director, Chairman of our Compensation Committee and member of our Audit Committee
Mannie L. Jackson	73	Director and member of our Audit Committee
Richard Rimer	47	Director and Vice-Chairman of the Board
Samuel M. Zentman	68	Director, Chairman of our Audit Committee and member of our Nominating Committee
Jim Andersen	57	Chief Executive Officer and President of USSI
Deena Redding	44	Chief Executive Officer and President of OmniMetrix
Benny Sela	65	Chief Executive Officer and President of DSIT
Lindon Shiao	38	Chief Executive Officer and President of GridSense
Michael Barth	52	Chief Financial Officer of the Company and DSIT
Heather K. Mallard	49	Vice President, General Counsel & Secretary

Christopher E. Clouser was appointed to the Board on November 16, 2011 and was elected Chairman of the Board on November 13, 2012. He is also Chairman of our Nominating Committee and serves on our Compensation Committee. 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 also serves as Chairman of the International Tennis Hall of Fame and Museum in Newport, Rhode Island. 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 served as Chairman of the Board from March 2009 until November 2012. Mr. Moore also served as a director of Comverge from March 2006 through January 2008. Mr. Moore was the President and a co-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 is currently a member of the Board of Directors of Voltaix, Inc., a leading provider of

specialty gases to the solar and semiconductor industries. 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 to Sterling Capital. Mr. Moore serves as a director on the board of directors or managers for each of our subsidiaries. Mr. Moore is also a director of USEED LLC, an organization providing fundraising solutions for entrepreneurial projects originating at colleges and universities.

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

Table of Contents

and the energy technology industry which is beneficial to the Board. Mr. Moore's service as a director and as the CEO of the Company 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.

Richard J. Giacco was elected to the Board in September 2006 and currently serves as Chairman of our Compensation Committee and as a member of our Audit Committee. Mr. Giacco has been President of Empower Materials, Inc., a manufacturer of carbon dioxide based thermoplastics, since January 1999. Mr. Giacco was the Managing Member of Ajedium Film Group, LLC, a manufacturer of thermoplastic films from its inception until its sale in 2008. Mr. Giacco served as Associate General Counsel of Safeguard Scientifics, Inc. from 1984 to 1990.

Key Attributes, Experience and Skills. Mr. Giacco brings strong operational and strategic background and valuable business, leadership and management experience to our Company. Mr. Giacco’s experience helping to lead the growth and ultimate sale of a family business provides strategic vision and insights as the Company implements its growth strategies. Mr. Giacco also brings legal experience to the Board.

Mannie L. Jackson was elected to the Board in September 2012 and serves as a member of our Audit 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 Inc.'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 currently 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.

Richard Rimer was elected to the Board in September 2006 and was appointed Vice-Chairman of the Board effective January 1, 2012. Mr. Rimer is a principal of Top Quartile Partners, an investment fund and served as a consultant to Acorn in 2012. From 2001 to 2006, Mr. Rimer .was a Partner at Index Ventures, a private investment company. He formerly served on the boards of Direct Medica, a provider of marketing services to pharmaceutical companies, and Addex Pharmaceuticals, a pharmaceutical research and development company. Prior to joining Index Ventures, Mr. Rimer was the co-founder of MediService, the leading direct service pharmacy in Switzerland and had served as a consultant with McKinsey & Co.

Key Attributes, Experience and Skills. Mr. Rimer brings to the Board broad business experience, and a deep understanding of capital markets. As a successful entrepreneur, Mr. Rimer founded a company in Holland which he successfully sold and went on to found MediService – one of Europe’s leading mail service pharmacies (sold to Galenica GALN-SW). While at Index Ventures, Mr. Rimer led work on multiple deals including sourcing, due diligence, deal structuring and negotiation, monitored growth of portfolio companies, syndicated subsequent financings, supported exit negotiations as well as helped with key recruits. These experiences enable Mr. Rimer to bring valuable resources to the Company in addition to Mr. Rimer’s leadership, analytical skills and broad familiarity with international and cross-border transactions. As in Mr. Moore's case, Mr. Rimer provides additional management insight to the Board.

Samuel M. Zentman has been one of our directors since November 2004 and currently serves as Chairman of our Audit Committee and as a member of the Nominating 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. 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, in particular our DSIT subsidiary. Dr. Zentman also brings leadership and oversight experience to the Board.

Table of Contents

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 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.

Deena Redding serves as CEO and President of OmniMetrix, LLC, a position she has held since November 2009. She began her career more than twenty years ago as a manager responsible for more than a billion dollars of insurance reserves for UPS and Ryder Integrated Logistics. Ms. Redding later partnered with Remote Business Management, LLC during the pioneer era of Digital Video Recording and led her company to a successful multi-million dollar venture with a publicly traded South Korean satellite technology company. Her accomplishments led her to the appointed position of President of Kyros, LLC, a distributor of high tech video and camera security products, where her role guided a successful acquisition.

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 from Stanford University, and an MBA.

Lindon Shiao serves as CEO and President of GridSense, a position he has held since 2006. Mr. Shiao was a co-founder and principal of Prime Powered Holdings LLC and a main shareholder of Prime Energy Partners Ltd. As an integral member of a team from AES-New Energy, Mr. Shiao co-led the spin-off and growth management of Catalyst PowerPartners LLC as a principal and key member of the operating team. Prior to Catalyst Power, Mr. Shiao led M&A teams at Arthur Andersen supporting buy-side transactions across different industries, including manufacturing, consumer marketing and distribution, healthcare services, and real estate. Mr. Shiao earned a B.S. from the Haas Business School at the University of California at Berkeley, and is a C.P.A.

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.

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 with the law firm Womble Carlyle Sandridge & Rice, LLP. Ms. Mallard is a seasoned corporate and business lawyer, with a practice that has spanned a variety of industries.

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, Richard J. Giacco and Mannie L. Jackson. Joseph Musanti resigned from the Audit Committee in December 2012, prior to his election as Chief Operating Officer at GridSense and as Chief Financial Officer at both GridSense and USSI. 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 Mr. 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 2012 our executive officers and directors complied with the filing requirements of Section 16(a) except: Messrs. Barth and Andersen each filed a late Form 4 and Mr. Jackson filed two late Form 4s and a late Form 3.

Table of Contents

We have implemented measures to assure timely filing of Section 16(a) reports by our executive officers and directors in the future.

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

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.

Table of Contents

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, 2012 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”) which was formed in October, 2011. The members of the Committee in 2012 were Richard Giacco (Chairman), Joseph Musanti (through December 13, 2012) and Christopher E. Clouser (beginning December 13, 2012), 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. Until July, 2012, our Board of Directors administered the Company's stock option plans. 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 2012. Changes in each named executive officer's base compensation for 2012, 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. Mr. Moore worked under an extension of his former employment agreement throughout 2012 pursuant to which we paid him a base salary of $375,000. We awarded him 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

Table of Contents

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 2011financial 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 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.

Michael Barth. Mr. Barth's base compensation for 2012 decreased by approximately $5,000 due to currency exchange rates and contractual cost of living adjustments. In addition, Mr. Barth received a discretionary bonus from the Compensation Committee of the Board of Directors of Acorn Energy, Inc. of $90,000 for 2011. He is also due to receive 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.

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 decreased by approximately $5,000. This decrease was comprised of an increase of approximately $7,000 due to the aforementioned increase in annual compensation offset by a decrease of approximately $12,000 due to currency exchange rates and contractual cost of living adjustments. He is also due to receive a cash bonus of $90,125 for 2012 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.

Lindon Shiao. Mr. Shiao received no increase in his base compensation for 2012, although he became an employee of GridSense in May, 2012. He had previously provided his services through a separate company in which he is a principal. He was not entitled to a bonus from us under the terms of either his consulting or employment agreements.

Heather K. Mallard. Ms. Mallard received no increase in her base compensation during 2012 and was not entitled to a bonus from us under the terms of her employment agreement.

Chief Executive Officer compensation determination for 2013. 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:

Table of Contents

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)

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 to express their views on executive compensation matters.

Table of Contents

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)	All Other Compensation ($)	Total ($)
John A. Moore						
President and CEO	2012	375,000	—	196,655 (1)	27,000 (2)	598,655
	2011	325,962	596,890	124,232 (3)	12,000 (4)	1,059,084
	2010	364,904	—	—	12,000 (4)	376,904
Michael Barth						
CFO and CFO of DSIT	2012	183,192	13,305	88,308 (5)	61,654 (6)	346,459
	2011	188,529	90,000	—	74,944 (6)	353,473
	2010	181,106	—	25,644 (7)	67,758 (6)	274,508
Benny Sela						
CEO and President of DSIT	2012	205,549	90,125	—	81,963 (6)	377,637
	2011	210,509	67,168	—	87,657 (6)	365,334
	2010	195,432	85,995	25,644 (7)	80,633 (6)	387,704
Heather K. Mallard Vice President, General Counsel and Secretary of Acorn	2012	205,962 (8)	—	185,032 (9)	—	390,994
Lindon Shiao Chief Executive Officer and President of GridSense	2012	240,000	—	—	—	240,000
	2011	240,000	—	—	—	240,000
	2010	153,863 (10)	—	—	18,253 (11)	172,116

(1) 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 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%.

(2) 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.

(3) 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 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.

(4) Consists of automobile expense allowance.

(5)

(5) 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%.

(6) Consists of contributions to severance and pension funds and automobile fringe benefits. Contributions to severance and pension funds are made on substantially the same basis as those made on behalf of other Israeli executives.

(7) Represents the grant date fair value calculated in accordance with applicable accounting principles with respect to 10,000 stock options granted on December 27, 2010 with an exercise price of $4.09.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 2.02% (ii) an expected term of 6.3 years (iii) an assumed volatility of 67% and (iv) no dividends.

(8) Represents salary from February 1, 2012.

(9) Represents the grant date fair value calculated in accordance with applicable accounting principles with respect to 50,000 stock options granted on February 1, 2012 with an exercise price of $6.49.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 1.41% (ii)

Table of Contents

an expected term of 6.7 years (iii) an assumed volatility of 58% and (iv) an annual rate of quarterly dividends of 2.16% and the grant date fair value with respect to 10,000 stock options granted on December 13, 2012 with an exercise price of $7.57.The fair value of these 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%.

(10) Represents Mr. Shiao's salary from the period from May 12, 2010 (the date of our acquisition of GridSense) to December 31, 2010.

(11) Represents a housing allowance of $2,600 Australian dollars per month from the period from May 12, 2010 (the date of our acquisition of GridSense) to December 31, 2010.

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	December 13, 2012	50,000 (1)	$7.57	$196,655
Michael Barth	December 13, 2012	25,000 (2)	$7.57	$88,308
Benny Sela	—	—	—	—
Heather K. Mallard	February 1, 2012	50,000 (3)	$6.49	$149,709
	December 13, 2012	10,000 (4)	$7.57	$35,323
Lindon Shiao	—	—	—	—

(1) The options vest 2,500 each on March 13, June 13, September 13 and December 13 of each year 2013 through 2017.

(2) The options vest 8,333, 8,333 and 8,334 on December 13, 2013, 2014 and 2015, respectively.

(3) The options vest 16,667, 16,667 and 16,666 on February 1, 2013, 2014 and 2015, respectively.

(4) The options vest 3,333, 3,333 and 3,334 on December 13, 2013, 2014 and 2015, respectively.

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.

Table of Contents

` Under the terms of the 2013 Agreement, Mr. Moore's initial base salary is $425,000 per annum, increasing 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. 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. Assuming agreement by the parties, the grant will be reflected in a separate contract executed between Mr. Moore and us. 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 2011financial 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.

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 effective August 1, 2009. According to the new employment terms, Mr. Barth was entitled to a salary increase from $150,000

to $175,000 per annum retroactive to 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 $186,000. The cost of Mr. Barth's total compensation (excluding bonuses) is shared by an arrangement between Acorn (75%) and DSIT (25%). Each of Acorn and DSIT separately determine any bonus (if any) to be paid to Mr. Barth. Mr. Barth did not receive any bonus for 2010 . 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.

Table of Contents

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.

Under the employment agreement, Ms. Mallard was awarded 50,000 options to purchase Acorn common stock at an exercise price of $6.49 per share, vesting equally over a three year period following the first anniversary of the date of grant, exercisable through February 1, 2019. The employment agreement provides for an additional award of 10,000 options to purchase Acorn common stock on each anniversary of her employment.

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 new base salary, which is still denominated in NIS and linked to the Israeli CPI, is currently equivalent to approximately $226,000 per annum. 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 $85,995, $67,168 and $90,125 for the year's ended December 31, 2010, 2011 and 2012, respectively.

Lindon Shiao has served as CEO and President of GridSense since 2006. Mr. Shiao’s employment terms are based on an employment agreement signed June 11, 2012. The agreement has no fixed term and the employment is on an “at-will” basis. For 2012, Mr. Shiao’s annual salary was $240,000 and is unchanged for 2013. Mr. Shiao was entitled to a bonus payment of 4% of the amount by which the actual gross profit of GridSense for the 2012 calendar year exceeded 105% of GridSense gross profit earned in 2011. Mr. Shiao did not receive a bonus for 2012.

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 or 2012.

Deena Redding has served as CEO and President of OmniMetrix since 2009, prior to which she was the controller for the period from 2008 to 2009. She is party to an at-will employment agreement that commenced with our acquisition and has no fixed term. Ms. Redding is entitled to receive a base salary of $200,000 per annum and is eligible to receive up to a 30% bonus based on performance goals established by the OmniMetrix board of managers each year. The agreement further provides for a car allowance and company paid life insurance. She also received a one-time payment of $50,000 in connection with the termination of her prior employment agreement in effect at the time we acquired OmniMetrix. Ms. Redding did not receive a bonus for 2012.

Table of Contents

Outstanding Equity Awards at 2012 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, 2012.

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
	—	50,000 (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
	—	25,000 (2)	7.57	December 13, 2019
Benny Sela	10,000	—	4.09	December 28, 2017
Heather K. Mallard	—	50,000 (3)	6.49	February 1, 2019
	—	10,000 (4)	7.57	December 13, 2019
Lindon Shiao	—	—	—	—

(1) The options vest 2,500 each on March 13, June 13, September 13 and December 13 of each year 2013 through 2017.
(2) The options vest 8,333, 8,333 and 8,334 on December 13, 2013, 2014 and 2015, respectively.
(3) The options vest 16,667, 16,667 and 16,666 on February 1, 2013, 2014 and 2015, respectively.
(4) The options vest 3,333, 3,333 and 3,334 on December 13, 2013, 2014 and 2015, respectively.

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	—	16,774	1.05	August 10, 2018
Benny Sela	—	47,600	1.26	August 10, 2018
	—	19,336	2.51	August 10, 2018

Heather K. Mallard	—	—	—	—
Lindon Shiao	—	—	—	—

All options to purchase DSIT Solutions Ltd. common stock vest only upon an exit transaction by Acorn.

Table of Contents

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	—	—	—	—
Benny Sela	—	—	—	—
Heather K. Mallard	—	—	—	—
Lindon Shiao	—	—	—	—

Option and Warrant Exercises

None of Messrs. Moore, Barth, Sela or Shiao, nor Ms. Mallard, exercised any options held by them in Acorn, DSIT or USSI during 2012. On February 9, 2012, Mr. Barth exercised a warrant to acquire 1,645 shares of Acorn common stock at an exercise price of $4.50 per share.

Table of Contents

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, 2012.

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	—	36,077 (1)	19,087 (2)	—	295,291 (3)
Benny Sela	—	33,706 (1)	76,174 (2)	—	733,393 (3)
Heather K. Mallard	—	—	—	—	—
Lindon Shiao	—	—	—	—	—

(1) Represents a contribution to a manager's insurance policy. Such amount is included in the "All Other Compensation" column of the Summary Compensation Table.

(2) Represents the dollar value by which the aggregate balance of the manager's insurance policy as of December 31, 2012 is less than the sum of (i)the balance of the manager's insurance policy as of December 31, 2011, and (ii) the employer and employee contributions to the manager's insurance policy during 2012.

(3) Represents the aggregate balance of the manager's insurance policy as of December 31, 2012. 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 Prior 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 have ceased, except that Mr. Moore would have received 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 have been exercisable in accordance with the terms of the applicable stock option plan and agreements, provided that Mr. Moore would have had only three months to exercise such previously vested options. All options that had not vested as of the date of termination would have expired.

In the event that within three months prior to or one year following a change of control (as defined in the agreement), either (i) the Company had terminated the employment of Mr. Moore, other than for cause, or (ii) Mr. Moore had terminated for good reason (as defined in the Prior Agreement), Mr. Moore would have received the following

additional amounts (except to the extent that any payment would have constituted an “excess parachute payment” under the IRS Code): (i) an amount equal to (A) 24 months of then-current base salary and (B) two times his most recent annual bonus; (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 had terminated the employment of Mr. Moore (including a non-renewal of his agreement at the end of the three-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 had terminated for good reason, other than in connection with a change of control, Mr. Moore would have received the following additional amounts (except to

Table of Contents

the extent that any payment would have constituted an “excess parachute payment” under the IRS Code): (i) an amount equal to (A) 12 months of then-current base salary and (B) his most recent annual bonus; (ii) reimbursement of all previously unreimbursed expenses; (iii) accelerated vesting of all unvested options that otherwise would have vested 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 have vested and remained exercisable until their respective expiration dates.

The term of the Prior Agreement would have ended 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, 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
Compensation:						
Base salary	$—	$375,000	(1)	$750,000	(4)	$—
Bonus	—	150,000	(2)	300,000	(2)	—
Benefits and perquisites:						
Perquisites and other personal benefits	—	9,156	(3)	9,156	(3)	—
Total	$—	$534,156		$1,059,156		$—

(1) The $375,000 represents 12 months of Mr. Moore’s base salary as at December 31, 2012. Effective January 1, 2013, Mr. Moore's base salary increased to $425,000 per annum.
(2) Under the Prior Agreement, Mr. Moore would have been eligible to be paid either his most recent annual bonus or twice such amount.
(3) The $9,156 represents 12 months of health insurance payments.
(4) The $750,000 represents 24 months of Mr. Moore’s base salary.

The 2013 Agreement's termination clauses are substantially the same as those in the Prior Agreement except that (a) the bonus payment due to Mr. Moore in connection with a termination related to a change of control will be two times the amount of his target bonus for the year in which the termination occurred (rather than twice his latest bonus payment received), which target equals 100% of his then-current annual salary, and (b) in the case of termination other than upon a change of control, death, disability or for cause or by Mr. Moore for good reason, the bonus payment due to Mr. Moore will be the amount of his target bonus for the year in which the termination occurred (rather than his latest bonus payment received), which target equals 100% of his then-current annual salary.

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, 2012, the unfunded portion of these payments was $108,558. 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.

Table of Contents

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, 2012, 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	$31,061	(1)	$93,182	(2)	$—	$93,182	(2)
Benefits and perquisites:							
Perquisites and other personal benefits	125,324	(3)	251,319	(4)	—	251,319	(4)
Total	$156,385		$344,501		$—	$344,501	

(1) The $31,061 represents a lump sum payment of two months' salary due to Mr. Barth.

(2) The $93,182 represents a lump sum payment of 6 months' salary due to Mr. Barth upon termination without cause or by death or disability.

(3) Includes $136,014 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 ($28,592), car benefits ($2,000) and payments for pension and education funds ($6,718) less $48,000 of benefits waived in support of DSIT's operations in 2007.

(4) Includes $244,572 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 $244,572 due Mr. Barth, we have funded $136,014 in an insurance fund. Also includes accumulated, but unpaid vacation days ($28,592), car benefits ($6,000) and payments for pension and education funds ($20,155) less $48,000 of benefits waived in support of DSIT's operations in 2007.

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, 2012, the unfunded portion of these payments was $267,880. 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.

Payments and benefits	Circumstances of Termination						
	Voluntary resignation		Termination not for cause		Change of control	Death or disability	
Compensation:							
Base salary	$112,987	(1)	$169,481	(2)	$—	$169,481	(2)

Benefits and perquisites:							
Perquisites and other personal benefits	673,347	(3)	685,567	(4)	—	685,567	(4)
Total	$786,334		$855,048		$—	$855,048	