ACORN ENERGY, INC.
Form 10-K
March 22, 2010

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, 2009 Commission file number: 0-19771

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

Delaware	22-2786081
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4 West Rockland Road, Montchanin, Delaware	19710
(Address of principal executive offices)	(Zip Code)

302-656-1707
Registrant’s telephone number, including area code

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

Title of Class	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 ¨ No ¨

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 ¨ Non-accelerated filer ¨ Smaller reporting company x

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 2009, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately $30.4 million based on the closing sale price on that date as reported on the NASDAQ Global Market. As of March 15, 2010 there were 14,219,148 shares of Common Stock, $0.01 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

None.

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Certain statements contained in this report are forward-looking in nature. These statements can be identified by the use of forward-looking terminology such as “believes”, “expects”, “may”, “will”, “should” or “anticipates”, or the nega 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™ is a trademark of our DSIT Solutions Ltd. subsidiary. CoaLogix™ and MetalliFix™ are trademarks of our CoaLogix subsidiary. Coreworx™ is a trademark of our Coreworx subsidiary.

PART I

ITEM 1. BUSINESS

OVERVIEW

Acorn Energy (the "Company") is a holding company focused on improving the efficiency and environmental impact of the energy infrastructure, fossil fuel and nuclear industries. Our operating companies leverage advanced technologies to transform the existing energy infrastructure. We aim to acquire primarily controlling positions in companies led by promising entrepreneurs, and we add value by supporting those companies with financing, branding, positioning, and strategy and business development.

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

SCR Catalyst and Management Services. We provide selective catalytic reduction ("SCR") catalyst and management services for coal-fired power plants through our CoaLogix Inc. ("CoaLogix") subsidiary. These services include SCR catalyst management, cleaning and regeneration as well as consulting services to help power plant operators optimize efficiency and reduce overall nitrogen oxides ("NOx") compliance costs through CoaLogix's SCR-Tech LLC subsidiary.

• Naval and RT 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 real-time and embedded hardware and software development and production through our DSIT Solutions Ltd. ("DSIT") subsidiary.

• Energy Infrastructure Software (EIS) Services. We provide energy infrastructure software services through our Coreworx Inc. ("Coreworx") subsidiary. Coreworx is a leading provider of integrated project collaboration and advanced document management solutions for the architecture, engineering and construction markets, particularly for large capital projects in the energy industry.

Entities in which we own equity interests are engaged in the following activities:

• GridSense Pty Ltd. ("GridSense") provides remote monitoring and control systems to electric utilities and industrial facilities worldwide.

• U.S. Sensor Systems, Inc. ("USSI") develops and produces fiber optic sensing systems for the energy and defense markets (See "Recent Developments").

During 2009, we had operations in three reportable segments: providing catalyst regeneration technologies and management services for SCR systems through our CoaLogix subsidiary (our CoaLogix segment); providing sonar and acoustic related solutions and other real-time and embedded hardware and software development and production for energy, defense and commercial markets through our DSIT subsidiary (our Naval & RT Solutions segment); and providing integrated project collaboration and advanced document management solutions for the architecture, engineering and construction markets through our Coreworx subsidiary (our EIS segment). Our "Other" segment represents IT and consulting activities at our DSIT subsidiary.

REVENUES BY COMPANY

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

	Year ended December 31, 2008	Year ended December 31, 2009	Three months ended December 31, 2008	Three months ended December 31, 2009
CoaLogix	$ 10,099	$ 18,099	$ 4,658	$ 5,338
DSIT Solutions	8,267	9,219	1,945	2,746
Coreworx	2,330	3,999	1,563	512
Total	$ 20,696	$ 31,317	$ 8,166	$ 8,596

COALOGIX

Through SCR-Tech, which is 100% owned by our 77% owned CoaLogix subsidiary, we offer a variety of services for coal-fired power plants that use SCR systems to reduce nitrogen oxides (“NOx”) emissions. NOx emissions are contributors to ground-level ozone (smog), particulate matter and acid rain. These services include SCR catalyst management, cleaning and regeneration, as well as consulting services to help power plant operators optimize efficiency and reduce overall NOx compliance costs.

Coal-fired power plants, in particular, continue to be a primary target for NOx reduction, and selective catalytic reduction remains the most widely used technology by plant operators to control NOx. With NOx removal efficiencies of up to 95%, SCR systems (also referred to as SCR reactors) are considered to be the most effective NOx reduction solution, and we expect it to remain the dominant technology choice for coal-fired power plants to meet increasingly stringent U.S. air quality regulations.

The average useful life of SCR catalyst used at coal-fired power plants is approximately 24,000 hours (equivalent to three years of year-round operation). Until 2003, the only solution in the U.S. for restoring activity and NOx reduction performance was to replace spent catalyst with costly new catalyst. Since 2003, SCR-Tech has offered U.S. power plant operators a more cost-effective alternative in the form of catalyst regeneration.

Regulatory Drivers

The 1990 Clean Air Act Amendments were implemented to improve air quality in the U.S., and are enforced by the U.S. Environmental Protection Agency (“EPA”). Under the Clean Air Act, the EPA limits how much of a pollutant can be in the air anywhere in the United States, with each state responsible for developing individual state implementation plans (“SIPs”) to meet the EPA’s set limits for various pollutants. Emissions of NOx from coal-fired power plants are included in the EPA’s criteria pollutants for which limits have been established. Operators of large power plants, particularly in the Eastern half of the U.S., have been required to significantly reduce their NOx emissions.

The original regulatory driver of SCR-Tech's business was the EPA's NOx SIP Call program which was designed to mitigate the regional transport of NOx and required energy producers and other industries operating large power plants in the Eastern half of the U.S. to reduce their NOx emissions substantially and to maintain them at reduced levels particularly during the five-month "ozone season" (May 1-September 30) in 19 Midwestern and Eastern states and the District of Columbia. This program has resulted in a dramatic increase in the number of SCR system installations at coal-fired power plants for the removal of NOx.

The Clean Air Interstate Rule ("CAIR") is another regulatory driver of our SCR service business. Phase I caps on NOx emissions took effect January 1, 2009, and are designed to permanently cap and achieve substantial reductions in emissions of NOx across 28 Eastern states and the District of Columbia that we believe will further increase the size of our addressable market. By 2015, CAIR is expected to significantly reduce NOx emissions in these states from 2003 levels by plants utilizing a cap-and-trade approach. This rule builds on the NOx SIP Call with the objective of further mitigating air pollution moving across state boundaries, and is designed to cut NOx emissions from power plants significantly with the 2009 Phase I caps and by the implementation of Phase II caps in 2015. CAIR's Phase I caps require year-round SCR system operation for many power plants (with increased NOx reduction required during ozone season) to meet the more stringent requirements. With year-round operation of SCRs needed by many power plants to comply with CAIR, coal-fired power plant operators will be required to replenish the catalyst used in SCR systems with new or regenerated catalyst on a much more frequent basis.

On July 11, 2008, the D.C. Court of Appeals vacated CAIR and the associated Federal Implementation Plan. On December 23, 2008, the court subsequently re-instated CAIR to give the EPA an opportunity to fix flaws found by the court in its previous decision. The court did not provide a time limit for the EPA to complete the changes. The changes required by the court do not affect SCR usage or required emission caps or limits.

Market for SCR Catalyst and Management Services

Coal-fired plants represent approximately 50% of U.S. power generating capacity, and we believe they will continue to play an important role in the U.S. electricity generation market in the years ahead. Department of Energy (DOE) projections indicate that coal-fired electric power generation will grow gradually through 2035. The recent growth in SCR system installations in coal-fired power plants driven by the NOx SIP Call and CAIR has resulted in a large and growing U.S. market for SCR catalyst and management services. Based upon the substantial number of SCR systems that commenced operation between 2000 and 2006 combined with the CAIR Phase I caps which began on January 1, 2009, we expect the market for catalyst replenishment to increase dramatically, and result in a total addressable market for catalyst cleaning and regeneration estimated in excess of $100 million by 2011.

By offering customers more economical ways to operate and maintain their SCR units, along with a lower cost regeneration alternative to purchasing new catalyst, we believe SCR-Tech has the potential to play a significant role in the growing U.S. market for SCR catalyst and management services.

SCR-Tech's Service Offerings

Catalyst Cleaning, Rejuvenation and Regeneration

We offer proprietary and patented processes that can improve the NOx removal efficiency and restore the useful life of installed SCR catalyst, providing a compelling economic alternative to catalyst replacement. SCR-Tech's processes are capable of not only physically cleaning and rejuvenating the most severely plugged, blinded or poisoned catalyst, but of also chemically reactivating deactivated catalyst. Depending upon the state of the installed catalyst, SCR-Tech offers several alternatives for restoring its NOx removal efficiency and extending its life. The chemicals and raw materials used in the cleaning and regeneration processes are commonly and readily available.

SCR-Tech's regeneration process has several advantages over purchasing new catalyst by (i) offering cost savings, (ii) eliminating or reducing environmental related disposal issues, (iii) enhancing catalyst activity and (iv) reducing sulfur dioxide conversion.

SCR and Catalyst Management

We provide a broad array of customized SCR and catalyst management services, including guidance on effective SCR and catalyst management strategies, with the objective of assisting plant operators in optimizing the operation and performance of their SCR systems while reducing their operation and maintenance costs and achieving cost-effective NOx compliance. All SCR and catalyst management services are offered as either a complete package or "a la carte," allowing the flexibility to select and combine various services on an as-needed basis tailored to the individual SCR system.

Customers

Our SCR catalyst and management services business currently primarily serves the U.S. coal-fired power generation market. Our customer base ranges from large investor-owned utilities and independent power producers to smaller municipal power generators. As part of an ongoing growth and revenue diversification strategy, SCR-Tech continues to actively target SCR operators at coal-fired power plants throughout the United States, and the Eastern U.S. in particular, to further expand its customer base and broaden its reach in the marketplace. In 2009, two customers represented approximately 36% of SCR-Tech's revenue, and one of those customers, Alleghany Energy, comprised 14.0% of Acorn's sales for 2009 and the loss of Alleghany Energy as a customer would have a material adverse effect on Acorn and its subsidiaries taken as a whole. In 2008, three customers represented approximately 75% of SCR-Tech's revenue.

Competition

We are aware of one company, Evonik Energy Services LLC ("Evonik LLC"), which entered the U.S. catalyst regeneration market beginning in 2008, and has a regeneration facility in North Carolina. Evonik LLC, based in Charlotte, North Carolina, is a subsidiary of a large German company, Evonik Steag GmbH. We are currently involved in litigation with Evonik LLC. See Item 3. Legal Proceedings. Another company, Enerfab Inc. provides catalyst management, and also cleans and rejuvenates catalyst but does not regenerate catalyst (which involves reactivating catalyst with chemicals to restore the catalyst to its maximum efficiency). In addition, new catalyst replacement is the primary competition for SCR-Tech's regeneration process when a replenishment of catalyst activity is necessary. The basis of competition is often price as many projects are subject to competitive bidding. Quality and service can also be competitive factors.

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Production Facilities

SCR-Tech's business operations are located in Charlotte, North Carolina in a 126,000 square foot production facility for the cleaning and regeneration of SCR catalyst.

In anticipation of CoaLogix's need to increase production capacity in order to satisfy expected increased orders from customers, in April 2009 we entered into an agreement with EnerTech and CoaLogix senior management to invest approximately $11.5 million in CoaLogix. To date, $5.6 million has been invested by EnerTech, CoaLogix senior management and us in CoaLogix under the agreement.

In September 2009, we announced that SCR-Tech entered into an agreement to lease approximately 7.3 acres of land in Charlotte, North Carolina together with a building containing approximately 143,500 square feet of office and warehouse space. SCR-Tech entered into this lease to provide it with additional space for manufacturing, warehousing, research and development and administration. SCR-Tech is initially leasing 98,460 square feet through August 31, 2010, and will lease the balance of the 45,040 square feet on or before September 1, 2010. SCR-Tech is in the process of upfitting the space, and anticipates such upfit to be completed around mid-2010. We believe that our current production facility together with the new production facility (when ready) will provide sufficient capacity for cleaning and regeneration activities for the near future.

Intellectual Property

We use a combination of patents, trade secrets, contracts, copyrights and trademarks to protect the proprietary aspects of our core technologies, technological advances and innovations, including our cleaning and regeneration processes and other know-how, and we work to actively maintain protection of our proprietary technologies and processes over time through follow-on patent filings associated with technology and process improvements that we continually develop. A significant portion of our know-how is protected as trade secrets and supported through contractual agreements with our employees, suppliers, partners and customers.

We either own (exclusively or jointly) or hold exclusive license rights from third parties for six U.S. patents, three Canadian patents, one German patent and six pending U.S. applications. We anticipate that when our early patents expire, we will rely on subsequently filed and additional patents along with trade secrets and other know-how to protect the foundation technology and cleaning and regeneration processes. We plan to continue to file new patent applications as we gain knowledge and experience with our various processes and service offerings.

NAVAL & RT SOLUTIONS – DSIT SOLUTIONS LTD.

DSIT Solutions is a globally-oriented company 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, computerized vision for the semiconductor industry and command, control and communication management ("C3") we provide wide ranging solutions to both governmental and commercial customers.

Products and Services

DSIT's Naval and RT Solutions activities are focused on two areas – sonar and acoustic solutions for naval and security markets and other real-time and embedded hardware and software development and production.

Naval Solutions. Our naval 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, 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 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.

- Harbor Surveillance System ("HSS") – DSIT has developed an integrated HSS that incorporates DDS sensors with above-water surveillance sensors to create a comprehensive above and below water security system to coastal and offshore sites such as energy terminals, offshore rigs, nuclear power plants and ports. The system reliably detects, intercepts, and warns of intruders such as divers, swimmers, SDVs, submersibles, small surface vessels and mines.

- 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 ships and submarines. 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/attack 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.

- 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.).

Other Real-Time and Embedded Solutions

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

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- Applications - DSIT specializes in Weapon/ C&C Operating Consoles for unique air and naval 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 manufacture. 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 and data links - DSIT's PCMCIA Soft Modem card is a state of the art modem and an example of the advanced technology DSIT has achieved in performance and miniaturization of complex technologies. The design simplicity and flexibility allows customers to easily define and create a range of applications, and to design the card into a variety of OEM products, using the same, or slightly modified, hardware. The on-board processor enables and manages transfer of data over radio networks using different radio systems.

- 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 (SPA). Some customers designing and building their own sonar systems have purchased these building blocks from us.

Customers and Markets

All of this segment's operations (excluding sales and product delivery, set-up and service) take place in Israel. In 2008, approximately 15% of this segment's revenues were derived from outside of Israel. In 2009, approximately 43% of DSIT's revenues were derived from outside of Israel. We expect this trend of increasing sales generated from outside of Israel to continue in 2010. DSIT is continuing to invest considerable effort to penetrate European, Asian, U.S. and other markets in order to broaden its geographic sales base with respect to its sonar technology solutions. We have created significant customer relationships with some of Israel's largest companies in its defense and electronics industries.

The global war on terror has shifted the focus of governments and Homeland Security agencies to invest in situational awareness equipment to better protect their national infrastructure. For example, in March 2009, the U.S. Nuclear Regulatory Commission ("NRC") amended the security requirements for nuclear power reactors to require detection and assessment systems at all licensed U.S. nuclear power plants. In addition, commercial enterprises are also increasingly aware of the need to protect critical coastal and waterfront infrastructures. These critical infrastructures include naval ports, oil terminals, off-shore oil and gas rigs, liquid natural gas plants and terminals, nuclear plants, coal terminals and desalination plants. We believe there will be a growing demand by governmental agencies and commercial owners of these facilities for products and services such as our naval solutions described above.

We believe that in 2010, increased awareness as to the susceptibility of strategic coastal waterfront energy installations worldwide will result in increased orders of our AquaShield™ DDS systems. Furthermore, we have entered into a cooperation agreement with a U.S. based integrator to help us penetrate the U.S. market, particularly with respect to recent NRC security requirements.

Three customers accounted for 83% of segment sales in 2009 (38%, 32% and 13%, respectively) while in 2008, two customers accounted for 60% (49% and 11%, respectively) of segment sales. The loss of any one or more of these customers would have a material adverse effect on this segment.

Competition

Our Naval & RT Solutions segment faces competition from several competitors, large and small, operating in worldwide markets, (such as Sonardyne International Ltd., C-Tech Development Corp. and the Kongsberg group of companies) with substantially greater financial and marketing resources, particularly with respect to our Naval 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.

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. Our 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 ours to rely on patents, as the patent itself may disclose critical information.

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

Facilities

DSIT’s activities are conducted in approximately 18,000 square feet of office space in the Tel Aviv metropolitan area under a lease that expires in August 2012. We believe that DSIT’s current premises are sufficient to handle the anticipated increase in sales for the near future.

ENERGY INFRASTRUCTURE SOFTWARE SERVICES – COREWORX INC.

We acquired Coreworx, which is based in Kitchener, Ontario, Canada on August 13, 2008, and we currently own 100% of Coreworx. Coreworx is an Ontario, Canada corporation. Coreworx provides software that manages project information and work processes on an international scale to increase efficiency and reduce risks for owners and operators (“O/O”) and engineering and construction contractors (“E&C”) involved with major capital projects (“MCPs”).

Coreworx considers MCPs to be those that are more than $500 million in cost with a high level of complexity due to sophisticated engineering and design, international collaboration and often a higher level of regulation than is required for general building, such as projects involving offshore oil and gas, nuclear, hydroelectric and biochemical. The execution of a MCP can take from three to seven or more years and the capital costs run from half a billion dollars to tens of billions of dollars. Due to the scale, large number of stakeholders involved, and the complexity of MCPs, project information control and work process management are crucial to managing project execution risk.

Products & Benefits

Coreworx offers a variety of products in a secure web-based enterprise class software platform that provide information control and work process automation for the engineering, procurement, and construction phases of a global MCP.

During the construction of a typical MCP, multiple revisions of tens of thousands of documents and drawings will be exchanged by thousands of team members every month around the globe. With Coreworx, our customers are able to control and manage thousands of document-centric work processes and benefit specifically from improved control thereby mitigating commercial risk and reducing costs.

Coreworx's nuclear product is being used to manage licensing of new nuclear plants and return to service current fossil and nuclear plants.

Customers and Markets

Market Drivers and Trends

MCP activity is usually found within the following broad sectors: industrial and manufacturing; mining; oil and gas; power and utilities (generation and transmission); commercial and retail; and public infrastructure. Coreworx is focused on sales to large E&Cs and O/Os that execute MCPs in the oil and gas, mining and power generation sectors primarily in North America and Australia. Coreworx is also pursuing growing Latin and South America markets using local partners to advance opportunities.

Prior to the recent global economic downturn, spending for MCPs by governments, quasigovernmental entities, and private enterprise was on the rise in response to the global economic expansion. With the recent world economic downturn, marginal projects were shelved, and only well-funded owners are proceeding with MCPs.

Presently, as markets have begun to stabilize, commodity and construction material prices have also begun to stabilize and projects are being resumed in a more favorable cost environment. Over the long term, MCP spending in target sectors is expected to grow in line with global economic development and population growth in order to service the energy and commodity demands these forces create.

Information Technology Use in Major Capital Projects

O/Os, E&Cs, their subcontractors and suppliers have historically been late adopters of business process automation technology. Coreworx recognized the need for project information control in MCPs, and developed its Coreworx software in 2005 to assist E&Cs and O/Os in meeting the challenges involved with MCPs, including cost overruns involving rework, project schedule delays, and compliance with contract terms and applicable regulations.

Oil and Gas

The oil and gas sector continues to attract a large volume of capital investment resulting in initiation of MCPs. Analyst Wood Mackenzie expects national oil companies to spend more than $100 billion per year over the next five years developing MCPs. Global oil & gas exploration and production spending in 2009 amounted to $400 billion, based on Barclays Capital annual survey of 357 oil & gas companies. For 2010, the same survey found an increase in planned spending to $439 billion.

Mining

Weakened commodity prices, credit tightness and rising project costs applied downward pressure to mining projects in 2009 compared to the boom growth of previous years. However, markets and commodities prices have begun to stabilize and project activity is resuming as mining output in turn feeds other necessary projects. Many of the world’s largest mining companies are based in resource rich Latin America, Australia and Canada. In Canada alone, 136 projects worth more $53 billion have begun construction or are expected to begin between June 2009 and December 2010, according to Industrial Info Resources. Western Australia is also a significant area of mining MCP activity, and the country is the world’s second largest uranium producer after Canada, giving it a favorable position in supplying nuclear power projects around the world.

Power Generation

Continuing demand for electricity and the growth of developing economies in addition to refurbishment of aging existing infrastructure and development of renewable energy sources have lead to global increases in capital spending on new power generation and transmission projects. The International Energy Agency estimates that world nuclear capacity must grow 80% beyond current capacity by 2030, not only to meet growing electricity demand but also climate change regulations, and that $13.6 trillion must be spent on power generation projects between 2008 and 2030. In North America, 295 Canadian power projects worth more than $41 billion have begun construction or are expected to begin construction between June 2009 and December 2010, according to Industrial Info Resources. The Edison Electric Institute estimates that spending by U.S. power utilities will exceed $250 billion between 2009 and 2011.

Total Addressable Market

There are presently approximately 3,500 MCPs in the oil and gas, mining and power generation sectors either under construction or in the front-end engineering design stage with an estimated approximate value of $3.8 trillion. Of such MCPs we believe that the total addressable market for software such as Coreworx is approximately $2 billion.

Customers

Coreworx software is currently in use by global customers in 35 countries on more than 400 capital projects with tens of thousands of users. In the year ended December 31, 2009, Coreworx was dependent upon a few major customers such as USEC, Fluor Corporation, Chevron Corporation), J. Ray McDermott, Inc. and Husky Energy.

Competition

Many other vendors are attempting to address the MCP needs that are addressed by Coreworx from a variety of functional backgrounds such as plant design or project management. Most of our competitors are software companies that offer products that we believe address some, but not all, aspects of MCP information control addressed by Coreworx; however, a small number of companies such as Aconex, McLaren Engineering and Organice are viewed by our customers as direct competitors. Price is often a competitive determinant as many projects are awarded based on competitive bidding. Functionality and service can also be competitive factors.

Locations

Coreworx' corporate office is located at 22 Frederick Street, in Kitchener, Ontario, Canada in approximately 8,600 square feet of office space under a lease that expires in December 2010. We believe we will have to take more space in 2010 and 2011 to meet our near term growth expectations.

Intellectual Property

We use a combination of proprietary source code, trade secrets, and contracts with our employees, OEM suppliers, partners and customers, and trademarks to protect the proprietary aspects of our core technologies, technological advances and innovations and know-how. We work actively to maintain protection of our proprietary technologies and processes over time and process improvements that we continually develop.

GRID MONITORING SOLUTIONS - GRIDSENSE PTY LTD.

In 2009 we owned approximately 31% of GridSense Pty Ltd. (GridSense), and accounted for our investment under the equity method.

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

Due to increasing stresses on the system, an 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 future grid.

GridSense's patented 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 is headquartered in Sydney, Australia and operates from offices in the U.S. and Australia and has utility customers throughout the world, including the Americas, Asia, Australia, Africa, and the UK.

GridSense Offerings & Solutions

GridSense has a range of commercially proven offerings sold to customers worldwide. The success of GridSense's offerings is based on being able to provide identifiable and quantifiable value to its utility customers by minimizing inconveniences and productivity losses for their consumers, optimizing operations of existing assets, reducing costs of identifying and rectifying outages and disturbances on their networks, and providing them with the requisite information to make better capital expenditure decisions. GridSense’s offerings include:

- LineTrackerTM Systems - The LineTrackerTM provides real-time monitoring of electricity grids and captures important operational, maintenance, planning and regulatory reporting information such as current, temperature and power factor. The LineTrackerTM provides all these applications at a fraction of the cost of alternative solutions in the market.

- PowerMonic Systems - The PowerMonic range of outdoor power analyzers and analytical software allows electric utilities to monitor and investigate power quality problems in homes, offices, factories, and key points on the electricity distribution infrastructure.

- Transformer IQ – The Transformer IQ is a comprehensive monitoring system that consolidates all transformer monitoring functions onto a single platform using industry-proven hardware, and allows utilities to effectively predict nearly all the failure modes known to occur to transformers.

Customers and Markets

Within Australia where GridSense has an established sales team and support infrastructure, GridSense sells the PowerMonic, LineTracker and Transformer 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. By leveraging off this indirect sales network, GridSense has expanded into international territories with effectiveness while minimizing the risk and financial burden of maintaining a direct sales organization.

Strategically important markets outside of Australia include North America, UK and South Africa. In North America, sales activity has experienced promising growth in the last several years. GridSense continues to generate new orders with new customers as well as repeat orders from existing customers. With only a handful of customers just five years ago, GridSense now has over 200 customers in the U.S. and Canada. GridSense has activities in other international markets but continues a measured and disciplined approach toward expansion.

Production Facilities and Locations

GridSense is headquartered in Sydney, Australia in an 8,000 square foot leased facility and has a 2,950 square foot leased facility in Sacramento, California, both of which GridSense management deems sufficient to meet its needs for the foreseeable future. GridSense has successfully outsourced many production aspects to external parties. 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.

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. To avoid direct competition, GridSense focuses on robust niches where it can offer a differentiated product based on superior cost and performance. 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 heavily 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. However, some of GridSense’s know-how and technology may not be patentable. To protect its rights, GridSense requires employees, 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.

U.S. SENSOR SYSTEMS INC.

U.S. Sensor Systems Inc. ("USSI") is a Delaware corporation based in Northridge, California. In November, 2009 and February, 2010, we acquired an aggregate of approximately 10% of USSI with options that can increase our holdings to approximately 84% by May 2011.

USSI's primary focus is to develop and produce fiber optic sensing systems for the energy and defense markets. USSI’s fiber optic sensor systems 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 new fiber optic sensing systems provide its users with a competitive advantage over those relying on existing sensor technology. Primary product lines for which USSI is currently developing products include downhole fiber optic sensor systems for oilfield 4D seismic reservoir monitoring, fiber optic perimeter security systems (including commercial and military), and fiber optic pipeline/coal mine monitoring systems. USSI’s systems are currently being installed for evaluation by companies in North America, Asia, and Eastern Europe.

BACKLOG

As of December 31, 2009, our backlog of work to be completed and the amounts expected to be completed in 2010 were as follows (amounts in millions of U.S. dollars):

	Backlog at December 31, 2009	Amount expected to be completed in 2010
CoaLogix	$ 9.2	$ 8.3
DSIT Solutions	7.6	6.5
Coreworx	1.1	1.1
Total	$ 17.9	$ 15.9

RESEARCH AND DEVELOPMENT EXPENSE

Research and development expense recorded for the years ended December 31, 2008 and 2009 for each of our consolidated subsidiaries is as follows (amounts in thousands of U.S. dollars):

	Years ended December 31,	
	2008	2009
CoaLogix	—	86
DSIT Solutions	237	457
Coreworx	932*	26**
Total	$ 1,169	$ 569

* Coreworx was acquired on August 13, 2008. Accordingly, the research and development expense recorded with respect to Coreworx relates only to the period after its acquisition.

** In 2009, the amount recorded is net of credits of $1,016.

EMPLOYEES

At December 31, 2009, we employed a total of 190 employees, including 166 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:

	Employee count at December 31, 2009			
	U.S	Canada	Israel	Total
CoaLogix	59	—	—	59
DSIT Solutions	—	—	50	50
Coreworx	8	48	—	56
Acorn	1	—	—	1
Total	68	48	50	166

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

	Employee count at December 31, 2009			
	Production, Engineering and Technical Support	Marketing and Sales	Management, Administrative and Finance	Total
CoaLogix	46	3	10	59
DSIT Solutions	40	2	8	50
Coreworx	37	13	6	56
Acorn	—	—	1	1
Total	123	18	25	166

We have no collective bargaining agreements with any of our employees. However, with regard to our Israeli activities, certain provisions of the collective bargaining agreements between the Israeli Histadrut (General Federation of Labor in Israel) and the Israeli Coordination Bureau of Economic Organizations (including the Industrialists Association) are applicable by order of the Israeli Ministry of Labor. These provisions mainly concern the length of the workday, contributions to a pension fund, insurance for work-related accidents, procedures for dismissing employees, determination of severance pay and other conditions of employment. We generally provide our Israeli employees with benefits and working conditions beyond the required minimums. Israeli law generally requires severance pay upon the retirement or death of an employee or termination of employment without due cause. Furthermore, Israeli employees and employers are required to pay specified amounts to the National Insurance Institute, which administers Israel's social security programs. The payments to the National Insurance Institute include health tax and are approximately 5% of wages (up to a specified amount), of which the employee contributes approximately 70% and the employer approximately 30%.

ADDITIONAL FINANCIAL INFORMATION

For additional financial information regarding our operating segments, foreign and domestic operations and sales, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 21 to our Consolidated Financial Statements included in this Annual Report.

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 could cause actual results to differ from our expectations, statements or projections.

GENERAL FACTORS

The ongoing crisis 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.

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

We have a history of operating losses, and have used significant amounts of cash to fund our operating activities over the years. In 2008 and 2009, we had operating losses of $12.4 million and $8.2 million, respectively. Cash used in operations in 2008 and 2009 was $3.3 million and $5.4 million, respectively.

In addition, we continue to pursue additional acquisitions and investment opportunities and may need to support the financing needs of our subsidiaries. Following our recent capital raise (see "Recent Developments"), we currently have enough cash on hand to fund our operations for the next 12 months. However, 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 or sell some of our assets in order to continue to pursue our corporate goals.

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, William J. McMahon, CEO of CoaLogix/SCR-Tech, Benny Sela, CEO of DSIT, Ray Simonson, CEO of Coreworx 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 our 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. Most of our significant employees are bound by confidentiality and non-competition agreements. Our future success also depends on our continuing ability to identify, hire, train and retain other highly qualified technical and managerial personnel. If we fail to attract or retain highly qualified technical and managerial personnel in the future, our business could be disrupted.

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

A portion of our total compensation program for our executive officers and key personnel has historically included the award of options to buy our common shares 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, 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.

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.

On March 2, 2010, Coreworx and Acorn Energy entered into a definitive agreement for Coreworx to acquire Decision Dynamics Technology Ltd. (see “Recent Developments”), and we plan to close on our acquisition of GridSense in the second quarter of 2010. Any failure to effectively integrate Decision Dynamics or GridSense’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 expand in the future, including through acquisitions. Integrating acquisitions is often costly, and we may not be able to successfully integrate our acquired companies with our existing operations without substantial costs, delays or other adverse operational or financial consequences. Integrating our 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.

If any of our acquired companies suffers customer dissatisfaction or performance problems, the same could adversely affect the reputation of our group of companies and could materially and adversely affect our business, financial condition, future results and cash flow.

Moreover, any significant acquisition 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. Both the Sarbanes-Oxley Act of 2002 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 these rules and regulations to further increase our legal and financial compliance costs and to make compliance and other activities more time-consuming and costly. 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 are currently involved in litigation and may in the future may become involved in litigation that may materially adversely affect us

We are currently parties to two litigation matters which are described under “Item 3. Legal Proceedings.” Also, 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 at least annually or more frequently, if certain conditions exist. Any reduction in or impairment of the value of goodwill will result in a charge against earnings which could materially adversely affect our reported results of operations and financial position in future periods.

The financial soundness of our customers could affect our business and operating results.

As a result of the disruptions in the financial markets and other macro-economic challenges currently affecting the economy of the United States and other parts of the world, our customers may experience cash flow concerns. As a result, if customers’ operating and financial performance deteriorates, or if they are unable to make scheduled payments or obtain credit, customers may not be able to pay, or may delay payment of, accounts receivable owed to us. Any inability of current and/or potential customers to pay us for services may adversely affect our financial condition, results of operations and cash flows.

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 issue 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.

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

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

In recent years, there has been significant litigation involving patents and other intellectual property rights in many technology-related industries and we believe that the industries that 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. 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. We are currently pursuing one such claim as described under “Item 3 – Legal Proceedings” and may find it necessary to commence such litigation in the future to protect our rights and future business opportunities. We can offer no assurance as to the outcome of any such litigation.

Concentrations of credit risk

Financial instruments, which potentially subject us to concentrations of credit risk, consist principally of cash and cash equivalents and trade receivables. The counterparty to a majority of our cash equivalent deposits is a money market of a major financial institution which invests only in U.S. Treasury bills. We do not believe there is significant risk of non-performance by this counterparty. Approximately 56% of the trade accounts receivable at December 31, 2009 was due from four 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.

RISKS RELATED TO COALOGIX

SCR-Tech has incurred significant net losses since inception and may never achieve sustained profitability.

SCR-Tech has incurred net losses of $2.7 million and $1.4 million for the years ended December 31, 2009 and 2008, respectively. We believe that SCR-Tech will improve its operating results in 2010; however, we can provide no assurance that SCR-Tech will generate sufficient revenues to allow it to become profitable or to sustain profitability.

The size of the market for SCR-Tech's business is uncertain.

SCR-Tech offers SCR catalyst cleaning, rejuvenation and regeneration, as well as SCR system management and consulting services. The size and growth rate for this market will ultimately be determined by a number of factors, including environmental regulations, the growth in the use of SCR systems to reduce NOx and other pollutants, the length of operation of SCR systems, the adoption of regeneration versus replacement, the expansion of warranty coverage from SCR catalyst OEMs, the cost of new SCR catalyst, and other factors, most of which are beyond the control of SCR-Tech. There is limited historical evidence in the United States as to the cycle of replacement, cleaning and regeneration of SCR catalyst so as to accurately estimate the potential growth of the business. In addition, the number of times a catalyst can be regenerated is unknown, which also may affect the demand for regeneration in lieu of purchasing new catalyst. Any delay in the development of the market could significantly and adversely affect our results of operations and financial condition.

SCR-Tech may be subject to vigorous competition with very large competitors that have substantially greater resources and operating histories.

We are aware of one company, Evonik Energy Services, LLC, formerly known as Steag ("Evonik LLC"), which entered the U.S. catalyst regeneration market in 2008. Evonik LLC has currently built a regeneration facility in North Carolina. Evonik LLC, based in Kings Mountain, North Carolina, is a subsidiary of a German power producer, Evonik Steag GmbH ("Evonik GmbH"). Evonik GmbH is very large and has substantially greater resources than SCR-Tech or us. Competition from Evonik may have a material adverse effect on our operations, including a potential reduction in operating margins and a loss of potential business.

We are also aware of at least one other company, Enerfab, Inc. that provides SCR catalyst management, rejuvenation and cleaning services. We are aware of certain companies, including Cormetech and Babcock-Hitachi, who have indicated an interest in offering catalyst cleaning and regeneration, and it is possible that manufacturers of new catalyst and other companies may enter the business of SCR catalyst regeneration. There also are a number of SCR catalyst manufacturers with substantial parent companies that may seek to maintain market share by significantly reducing prices of new SCR catalyst which will put pressure on our operating margins. These companies include Cormetech Inc. (owned by Mitsubishi Heavy Industries and Corning, Inc.), Argillon Group (owned by Johnson Matthey), CERAM, Haldor-Topsoe, Inc. and Babcock-Hitachi. Further, if the SCR catalyst regeneration market expands as we expect, additional competitors could emerge. In addition, if our intellectual property protection is weakened, competition could more easily develop.

SCR-Tech's lawsuit against Evonik Energy Services LLC, et al. may not be successful, and the counterclaims of Evonik Energy Services LLC against SCR-Tech may be successful. We will incur significant expenses in pursuing our lawsuit against Evonik and in defending against Evonik's counterclaims.

SCR-Tech's lawsuit against Evonik Energy Services, LLC and other defendants as described in Item 3, Legal Proceedings, is associated with certain significant risks. The lawsuit will require the time and attention of senior management of SCR-Tech, and could divert attention from other business matters. Expenses of the lawsuit may cause a diversion of significant funds needed by SCR-Tech to fund operations for other aspects of the business.

Due to the nature of litigation, it is not possible to predict the outcome of the lawsuit. We anticipate that the Evonik LLC defendants will vigorously defend themselves, and that Evonik LLC will vigorously pursue its counterclaims against SCR-Tech. In the event SCR-Tech is unsuccessful in the lawsuit and Evonik LLC prevails in its counterclaims, Evonik LLC may be awarded substantial damages against SCR-Tech. SCR-Tech has not reserved funds for any loss contingency or legal fees associated with this litigation. In addition, if SCR-Tech is unsuccessful, Evonik LLC will remain a competitor of SCR-Tech.

CoaLogix may not prevail in the lawsuit filed against it by Environmental Energy Systems, Inc.

The lawsuit brought by Environmental Energy Services, Inc. ("EES") against CoaLogix is associated with certain significant risks. The lawsuit will require the time and attention of senior management of CoaLogix, and could divert attention from other business matters. Expenses of the lawsuit have and may continue to cause a diversion of significant funds needed by CoaLogix to fund operations for other aspects of the business.

Due to the nature of litigation, it is not possible to predict the outcome of the lawsuit. In the event CoaLogix is unsuccessful in defending the lawsuit and EES prevails in its claims, EES may be awarded substantial damages against CoaLogix including costs, interest and attorneys' fees. CoaLogix has not reserved funds for any loss contingency or legal fees associated with this litigation.

SCR-Tech's business is subject to customer concentration.

SCR-Tech offers SCR catalyst cleaning, rejuvenation and regeneration, as well as SCR system management and consulting services to coal-fired power plants. Some of the utilities operating these plants are exceptionally large and operate a number of such power plants. Thus, one or more large utilities could provide a very large order or orders to SCR-Tech which likely would result in one or two such utilities providing most of the orders and revenues for SCR-Tech for a particular quarterly or annual period. During 2009, two customers represented about 36% of CoaLogix' revenue. During 2008, three customers represented about 75% of CoaLogix' revenue. Although large orders are beneficial to SCR-Tech by providing a large and consistent source of orders and revenues without the additional cost associated with marketing to a larger number of smaller customers, SCR-Tech is dependent on a relatively small number of large utilities for its business. The loss of one of these customers would have a much greater adverse effect on SCR-Tech than the loss of a smaller customer. This may also result in significant swings in orders and revenues on a quarterly basis as well as impacting on our cash flows.

SCR-Tech's business may be impacted by changes in government regulation and environmental legislation.

Our business is significantly dependent on the nature and level of government regulation of emissions. For instance, the Environmental Protection Agency's (EPA) Clean Air Interstate Rule (CAIR) was vacated by the District of Columbia Court of Appeals in July 2008, and was subsequently re-instated in December 2008 by the same court just days before the vacature became effective. We expect the EPA to revise CAIR or replace it with other clean air regulations, but we cannot at this time to predict the nature of such revisions or replacement regulations. Without government regulation of coal-fired power generation, SCR catalyst would not be used by utilities, there would be no need for utilities to acquire, clean or regenerate SCR catalyst, and SCR-Tech would have no business purpose. Further, changes in or adverse interpretations of governmental accounting or rate-based emissions regulations also could have a material adverse effect on our business. Although government regulation of emissions has become increasingly stringent in recent years, the growing costs associated with such regulations and the economic downturn in the U.S. may limit the level of increase and scope of emissions requirements, which could limit the potential growth of our target markets. Any easing, delay or deferral of governmental emissions requirements or the growth rate of such requirements could have a material adverse effect on our business.

In addition, the coal industry is subject to regular enactment of new or amended federal, state and local environmental and health and safety statutes, regulations and ballot initiatives, as well as judicial decisions interpreting these requirements. These requirements may impose substantial capital and operating costs and operational limitations on us and may adversely affect our business. The requirements may also affect our customers' decisions to utilize our services which may materially adversely affect our business.

SCR-Tech's business is subject to potential seasonality.

Prior to the January 1, 2009 effective date of Phase I of CAIR, some utilities and IPPs operated their SCR units only during the "ozone season" (May 1 — September 30). Because of this, SCR-Tech's business was more limited than if SCR units were required to operate on a continual basis. During non-ozone season periods, most operators had limited (if any) requirements to run their SCR systems. Given that Phase I of CAIR effectively requires operators run their SCR systems on a continual basis beginning January 1, 2009, we expect less concentration of SCR-Tech's business during the ozone season each year. However, utilities and IPPs may continue to schedule outages and down time for maintenance during periods beyond our control, resulting in seasonality of SCR-Tech's business. These potential fluctuations in revenues and cash flow during a year may be significant and could materially impact our quarterly earnings and cash flow. This may have a material adverse effect on the perception of our business and the market price for Acorn's common stock.

SCR-Tech does not own its regeneration facilities and it is subject to risks inherent in leasing the site of its operations.

SCR-Tech does not own its regeneration site; instead it leases it from Clariant Corporation, the U.S. subsidiary of a Switzerland-based public company ("Clariant"). Although we believe the lease terms are favorable, the dependence on Clariant and the site could subject SCR-Tech to increased risk in the event Clariant experiences financial setbacks or loses its right to operate the site. This risk is heightened because the site is a Federal Superfund site (under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), which increases the risks that the site ultimately could be shut down or that Clariant will be financially unable to continue its ownership of the site. It may be difficult to relocate to another site on a timely or cost-effective basis, and SCR-Tech's business could be negatively impacted by any problems with continuing to conduct its operations at its current site.

Furthermore, SCR-Tech does not own its second regeneration site which is under construction; instead it leases it from Fat Boy Trading Company (Fat Boy), an independent owner of the site. The dependence of SCR-Tech on Fat Boy at the second site could subject SCR-Tech to increased risk in the event Fat Boy experiences financial setbacks or is unable to operate the site under the terms of the lease.

SCR-Tech could be subject to environmental risks as a result of the operation of its business and the location of its facilities.

The operation of SCR-Tech's business and the nature of its assets create various environmental risks. SCR-Tech leases its site for operations at a property listed on the National Priority List as a Federal Superfund site (the Clariant site). Five CERCLA Areas (those areas of concern identified under the CERCLA program) are identified on the property, and while SCR-Tech does not lease any property identified as a CERCLA Area, one such CERCLA Area has resulted in contamination of groundwater flowing underneath one of the buildings leased by SCR-Tech. Although SCR-Tech has indemnification from Clariant for any environmental liability arising prior to the operation of SCR-Tech's business at the site, we can provide no assurance that such indemnification will be sufficient or that SCR-Tech would be protected from an environmental claim from the nature of the site. In addition, the operation of SCR-Tech's business involves removal of hazardous wastes from catalyst and the use of significant chemical materials. As a result, SCR-Tech could be subject to potential liability resulting from such operations. To date, neither Acorn nor SCR-Tech has been identified as a potential responsible party to such environmental risks, nor have any amounts been recorded to accrue for these potential exposures.

We will be required to make significant capital expenditures to expand SCR-Tech's production facilities or for other purposes; we may require additional capital for such purposes.

In order to meet anticipated demand for increased orders for SCR regeneration services in 2010 and beyond, we expect to incur substantial capital expenditure costs over the next year to construct a second SCR regeneration plant at the Fat Boy site. Because of necessary permitting, site search, time for construction and equipment purchases, we can provide no assurance that SCR-Tech could meet the demands from a rapid increase in orders in a timely manner. Any failure to timely fulfill such orders could have an adverse impact on SCR-Tech's business.

If we incur the expected capital expenditures to expand the capacity of SCR-Tech, but the market does not develop as we expect or increased competition results in loss of significant business, we may not generate enough additional revenue from such expenses. This could adversely impact our results of operations and financial position. Moreover, other unanticipated expenses for SCR-Tech, such as litigation or other costs for protecting intellectual property rights or as a result of a significant corporate transaction could result in the need for additional capital. These additional funding requirements may be significant, and funds may not be available when required or may be available only on terms unsatisfactory to us.

Our cash requirements will depend on many factors, including but not limited to the market acceptance of our product and service offerings, the ability of SCR-Tech to generate significant cash flow, the rate of expansion of our sales and marketing activities, the rate of expansion of our production capacity, our ability to manage selling, general and administrative expenditures and the timing and extent of SCR-Tech related research and development projects.

In addition, we continue to actively pursue possible business opportunities, including but not limited to, mergers, acquisitions or other strategic arrangements. Such strategic opportunities could require the use of additional cash, or could require additional equity or debt financing. The nature and amount of any such financing or the use of any capital in any such transaction cannot be predicted and will depend on the terms and conditions of the particular transaction.

Certain of SCR-Tech's capital equipment are unique to our business and would be difficult and expensive to repair or replace.

Certain of the capital equipment used in the services performed by SCR-Tech has been developed and made specifically for us and would be difficult to repair or replace if it were to become damaged or stop working. In addition, certain of our equipment is not readily available from multiple vendors. Consequently, any damage to or breakdown of our equipment at a time when we are regenerating large amounts of SCR catalyst at SCR-Tech may have a material adverse impact on our business.

SCR-Tech is dependent on third parties to perform certain testing required to confirm successful regeneration.

In connection with the regeneration of SCR catalyst, SCR-Tech generally must have an independent company provide testing services to determine the level of success of regeneration. Currently there are a limited number of companies providing this service. If SCR-Tech is unable to obtain this service on a cost-effective basis, SCR-Tech may not be able to perform its regeneration services. In addition, if the testing cannot be completed in a timely manner, there may be a slowdown of operations which can negatively impact the profitability and financial condition of the Company.

Significant price increases in key materials may reduce SCR-Tech's gross margins and profitability of regeneration of SCR Catalyst.

The prices of various chemicals used to regenerate SCR catalyst can be volatile. If the long-term costs of these materials were to increase significantly, we would attempt to reduce material usage or find substitute materials. If these efforts were not successful or if these cost increases could not be reflected in our price to customers, then our gross margins and profitability of regenerating SCR Catalyst would be reduced and our ability to operate SCR-Tech profitably could be compromised.

There are risks associated with our purchase of used SCR catalyst.

SCR-Tech's primary business involves the cleaning and regenerating of customer-owned SCR catalyst. In certain instances, however, SCR-Tech may purchase used or "spent" catalyst from utilities for regeneration, as when, for example, a utility wishes to avoid the costs and potential hazardous waste issues associated with the disposal of used or "spent" catalyst. SCR-Tech may purchase SCR catalyst for a nominal sum and then regenerate such catalyst for immediate sale, or may purchase spent SCR catalyst on an opportunistic basis for future regeneration and sale. The purchase of spent SCR catalyst involves potential risks to SCR-Tech. For example, spent SCR catalyst includes significant hazardous waste, and unlike the regeneration of customer-owned SCR catalyst, the purchase of spent SCR catalyst requires SCR-Tech to take ownership or "title" to the SCR catalyst, which may potentially increase SCR-Tech's environmental risk exposure. Furthermore, if SCR-Tech cannot find a customer to purchase the regenerated catalyst, then SCR-Tech must either store the spent catalyst, subject to the inherent risk of holding catalyst which has not been regenerated and contains hazardous waste, or incur significant costs to dispose of the spent catalyst in a manner which complies with the strict requirements of applicable environmental laws. In addition, the sale of SCR catalyst may expose SCR-Tech to risks not inherent in the cleaning and regeneration of SCR catalyst, including product liability claims. It is unclear as to the amount of SCR catalyst which SCR-Tech may purchase, but it is possible such purchases ultimately may be substantial, and may significantly increase the risk profile of SCR-Tech's business.

Many of the risks of our business have only limited insurance coverage and many of our business risks are uninsurable.

Our business operations are subject to potential environmental, product liability, employee and other risks. Although we have insurance to cover some of these risks, the amount of this insurance is limited and includes numerous exceptions and limitations to coverage. Further, no insurance is available to cover certain types of risks, such as acts of God, war, terrorism, major economic and business disruptions and similar events. In the event we were to suffer a significant environmental, product liability, employee or other claim in excess of our insurance or a loss or damages relating to an uninsurable risk, our financial condition could be negatively impacted. In addition, the cost of our insurance has increased substantially in recent years and may prove to be prohibitively expensive, thus making it impractical to obtain insurance. This may result in the need to abandon certain business activities or subject ourselves to the risks of uninsured operations.

New technologies could be developed which make SCR catalyst obsolete.

SCR-Tech's business is dependent upon the needs of coal-fired power plants to replace or regenerate SCR catalyst. It is possible that at some point in the future new technology may be developed which replaces SCR catalyst as the preferred solution for removing NOx from the power plant exhaust. In such event, SCR-Tech's business would be materially and adversely affected.

RISKS RELATED TO DSIT SOLUTIONS

Failure to accurately forecast costs of fixed-priced contracts could reduce our margins.

When working on a fixed-price basis, we undertake 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 our 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, our costs are substantially higher than expected, we may incur losses on fixed-price contracts.

Hostilities in the Middle East region may slow down the Israeli hi-tech market and may harm our Israeli operations; our Israeli operations may be negatively affected by the obligations of our personnel to perform military service.

Our software consulting and development services segment is currently 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 significant deterioration of the results of our Israeli operations. In addition, an increase in hostilities in Israel could cause serious disruption to our Israeli operations if acts associated with such hostilities result in any serious damage to our offices or those of our customers or harm to our personnel.

Exchange rate fluctuations could increase the cost of our Israeli 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. While the dollar value of the revenues of our operations in Israel will increase if the dollar is devalued in relation to the NIS, the net effect of such devaluation is that DSIT's costs in dollar terms increase more than our revenues.

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. 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 2009 the NIS strengthened in relation to the U.S. dollar by 0.7%.

As of December 31, 2009, a 10% weakening of the U.S. dollar against the NIS would have increased stockholders' equity by approximately $0.5 million (arising from a CTA adjustment of approximately $0.3 million and net exchange gains of approximately $0.2 million). These hypothetical changes are based on adjusting the December 31, 2009 exchange rates by 10%.

DSIT currently 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.

We are 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 2009, 60% of DSIT's revenues were concentrated in two customers. Both of these customers are expected to continue to make up a significant portion of DSIT's revenues and cash flow for 2010. 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.

We are dependent on meeting milestones to provide cash flow for operations.

Our present operations, as we are currently structured, place a great reliance on our meeting project milestones in order to generate cash flow to finance our operations. Should we encounter difficulties in meeting significant project milestones, resulting cash flow difficulties could have a material adverse effect on our operations.

If we are unable to keep pace with rapid technological change, our results of operations, financial condition and cash flows may suffer.

Some of our solutions are characterized by rapidly changing technologies and industry standards and technological obsolescence. Our competitiveness and future success depends on our 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 our competitive position. Our failure to react to changes in existing technologies could materially delay our 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 we fail to keep pace with technological change, our revenues and financial condition could be materially adversely affected.

We must at times provide significant guarantees in order to secure projects.

Some of the projects we perform require significant performance and/or bank guarantees. In DSIT's current financial condition, it may not always be able to supply such guarantees 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 us in a timely manner.

We are dependent on a number of suppliers who provide us with components for some of our products.

A number of our suppliers provide us with major components for some of our products for our Naval & RT solutions. Some of these components are long-lead items. If for some reason, the suppliers cannot provide us with the component when we need it and we cannot easily find substitute suppliers on similar terms, we 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 we are constantly attempting to develop secondary and tertiary suppliers for these components, we can provide no assurance that we will be successful in doing so on terms acceptable to us.

We are dependent on one bank for most of our financing needs and we may not be able to obtain necessary financing to continue growing the Company.

While DSIT has recently received a term-loan of NIS 2 million (approximately $530,000) and has lines-of-credit of NIS 2 million, DSIT needs additional financing from time to time due to the timing of large milestone payments and the need to set aside cash deposits as security for some of its projects. Due to historical losses, DSIT has found it difficult to find a suitable secondary bank to support its financing needs. If we cannot increase our sources of financing, we may not be able to sustain our recent growth and invest in expanding our portfolio of products.

We are a relatively small company with limited resources compared to some of our current and potential competitors, which may hinder our ability to compete effectively.

Some of our current and potential competitors have longer operating histories, significantly greater resources and broader name recognition than we have. As a result, these competitors may have greater credibility with our 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 we can to ours, which would allow them to respond more quickly than us to new or emerging technologies or changes in customer requirements.

RISKS RELATED TO COREWORX

Coreworx has incurred significant net losses since inception and may never achieve sustained profitability.

Coreworx has incurred net losses of C$5.3 and C$3.5 million for the years ended December 31, 2008 and 2009, respectively. We believe that Coreworx will reduce its losses in 2010; however, we can provide no assurance that Coreworx will generate sufficient revenues to allow it to become profitable or to sustain profitability.

Coreworx may need additional financing

Cash used in operations in 2008 and 2009 was C$5.7 million and C$2.9 million, respectively. Coreworx will continue to require additional working capital support in order to finance its operations in 2010. This support may be in the form of a bank line, new investment by others, additional investment by Acorn, or a combination of the above. Since January 1, 2010, we have lent Coreworx $2.2 million. 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 working capital needs of our corporate activities and other operating companies.

Current and future competitors could have a significant impact on our ability to generate future revenue and profits

The market for project management collaboration software is highly competitive. Coreworx competes with products from major software companies. We expect competition to increase and intensify in the future as the pace of technological change and adaptation quickens and as additional companies enter into each of our markets. We may not be able to compete effectively with current competitors and potential entrants into our marketplace. We could lose market share if our current or prospective competitors introduce new competitive products, add new functionality to existing products, acquire competitive products, reduce prices or form strategic alliances with other companies. If other businesses were to engage in aggressive pricing policies with respect to competing products, or if the dynamics in our marketplace resulted in increasing bargaining power by the consumers of our products and services, we would need to lower the prices we charge for the products we offer. This could result in lower revenues or reduced margins, either of which may materially and adversely affect our business and operating results.

Our products and services may not gain market acceptance or competitors may introduce offerings that surpass those of Coreworx.

The primary market for our software 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 our products and services fail to develop, develop more slowly than expected or become subject to intense competition, our business will suffer. As a result, we may be unable to: (i) successfully market our current products and services, (ii) develop new software 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 our products and services are not accepted by our customers or by other businesses in the marketplace, our business and operating results will be materially affected. In addition, we can provide no assurance that Coreworx will be successful in deriving significant revenue growth through its current strategy and marketing initiatives.

Our investment in our current research and development efforts may not be effective.

The development of software products is a costly, complex and time-consuming process, and the investment in software product development often involves a long gestation period until a “return” is achieved on such an investment. We make and will continue to make significant investments in software research and development and related product opportunities. Investments in new technology and processes are inherently speculative. Accelerated product introductions and short product life cycles require high levels of expenditures for research and development. These expenditures may adversely affect our operating results if they are not offset by revenue increases. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts in order to maintain our competitive position. However, significant revenue from new product and service investments may not be achieved for a number of years, if at all. Moreover, new products and services may not be profitable, and even if they are profitable, operating margins for new products and businesses may not be as high as the margins we have experienced for our current or historical products and services.

The demand for our products depends in large part on continued growth in the industries into which they are sold. A market decline in any of these industries could have a material negative impact on our results of operations.

Our growth is dependent, in part, on capital projects initiated by our customers and potential customers. Any industry downturns that adversely affect our customers or their customers, including increases in bankruptcies in relevant industries, could adversely affect end-user demand for our customers' products, which would adversely affect demand for our products.

Growth in demand in the markets we serve has in the past and may in the future fluctuate significantly based on numerous factors, including capital spending levels of our current and potential customers, consumer spending, energy and commodity prices and general economic conditions.

The rate, or extent to which, the industries we serve will grow, if at all, is uncertain. The industries we serve are currently experiencing a decline in general economic conditions, which could result in slower growth or a decline in demand for our products, which could have a material negative impact on our business, financial condition and results of operations.

If the Canadian dollar significantly strengthens relative to the U.S. dollar, future operating results will be negatively affected.

Coreworx currently derives over 80% of its revenue in U.S. dollars. At the same time, most of Coreworx' expenses are denominated in Canadian dollars. A decline in the value of the U.S. dollar will have a major impact on Coreworx' profitability as it increases Coreworx' costs in U.S. dollars.

The translation of the balance sheets of Coreworx' operations from C$ into U.S. dollars is sensitive to changes in foreign currency exchange rates. These translation gains or losses are recorded either as CTA within stockholders' equity, or foreign exchange gains or losses in the statement of operations. In 2009 the Canadian dollar strengthened in relation to the U.S. dollar by 13.8%.

As of December 31, 2009, a 10% weakening of the U.S. dollar against the Canadian dollar would have increased stockholders' equity by approximately $0.6 million (arising from a CTA adjustment of approximately $0.6 million). These hypothetical changes are based on adjusting the December 31, 2009 exchange rates by 10%.

While Coreworx has in the past been successful in reducing the impact of fluctuations in the exchange rate through currency management, there is no assurance that Coreworx will be able to successfully manage these exposures in the future. Any significant change in foreign exchange rates may adversely affect our revenue, earnings and other financial measures.

Revenue from the renewal of maintenance contracts on our older software sales may decline.

Coreworx has historically enjoyed a high retention rate across its various product lines. As Coreworx' products age, these retention rates may not be sustained unless Coreworx is successful in providing its customers with more advanced functionality and the levels of support that they require.

The loss of licenses to use or sell third party software or the lack of support or enhancement of such software could adversely affect Coreworx business.

Coreworx depends on the sale and support of third party software for a significant component of its primary software product. There can be no assurance that these third party products will be available on commercially reasonable terms or that they will be appropriately supported, maintained or enhanced by the licensors. While Coreworx would make its best efforts to mitigate the impact of the loss of the ability to use, sell and support third party software, there is no assurance that Coreworx would be successful or that the terms for their use will remain economically feasible. The inability to use the third party software could have a material adverse affect on our business.

The loss of one or more of our significant customers or a decline in demand from one or more of these customers could have a material negative impact on net sales.

In 2009, 93% of Coreworx' revenue was the result of sales to five customers. In addition, in any given quarter, license sales from individual transactions can be material and in some cases the related sales cycles can be long. As a result, Coreworx' revenue, cash flows and earnings can fluctuate materially from quarter to quarter due to the timing of significant license agreements. The loss or a decline in demand from one or more of these customers could have a material negative impact on Coreworx' results of operations and revenues, cash flows and earnings.

Our future revenues depend on our ability to enhance our existing products and develop new products.

Coreworx needs to continue to upgrade the Coreworx suite to add features demanded by the market. Coreworx is in the process of completing and enhancing its Coreworx suite with functionality in the areas of interface management, contract management and developing a nuclear industry solution that addresses project execution and information control requirements for major refurbishment, power uprate and new build projects and expects to complete the integration by the end of the second quarter of 2010. A failure to complete updates of these offerings on a timely basis could have a negative impact on Coreworx' sales, particularly to potential new customers.

Coreworx' future success will depend upon its ability to enhance its current products, to keep pace with technological developments and respond to end-user requirements. We can provide no assurance that we will be successful in developing or marketing new products or product enhancements, or that we can avoid significant delays in development in the future, any of which could have a material adverse effect on the our business, results of operations and financial condition. Our ability to continue to compete successfully will depend in large measure on our ability to maintain a technically competent research and development staff and adapt to technological changes and advances in the industry, including providing for the continued compatibility of our software products with evolving computer hardware and software platforms and operating environments. We can provide no assurance that we will be successful in these efforts.

Our products may contain defects that could harm our reputation, be costly to correct, delay revenues, and expose us to warranty claims and litigation.

Our products are highly complex and sophisticated and, from time to time, may contain design defects or software errors that are difficult to detect and correct. Errors may be found in new software products or improvements to existing products after commencement of shipments to our customers. If these defects are discovered, we may not be able to successfully correct such errors in a timely manner. In addition, despite the extensive tests we conduct on all our products, we may not be able to fully simulate the environment in which our products will operate and, as a result, we may be unable to adequately detect the design defects or software errors which may become apparent only after the products are installed in an end-user's network. The occurrence of errors and failures in our products could result in the delay or the denial of market acceptance of our products; alleviating such errors and failures may require us to make significant expenditure of our resources. The harm to our reputation resulting from product errors and failures may be materially damaging. Since we regularly provide a warranty with our products, the financial impact of fulfilling warranty obligations may be significant in the future. Our agreements with our strategic partners and end-users typically contain provisions designed to limit our exposure to claims. These agreements usually contain terms such as the exclusion of all implied warranties and the limitation of the availability of consequential or incidental damages. However, such provisions may not effectively protect us against claims and the attendant liabilities and costs associated with such claims. Although we maintain errors and omissions insurance coverage and comprehensive liability insurance coverage, such coverage may not be adequate to cover all such claims. Accordingly, any such claim could negatively affect our financial condition.

The sales cycle for our products is long which may result in significant fluctuations in license revenue being recognized from quarter to quarter.

The decision by a customer to purchase our products often involves a comprehensive implementation process across our customers' network or networks. As a result, licenses of these products may entail a significant commitment of resources by prospective customers, accompanied by the attendant risks and delays frequently associated with significant expenditures and lengthy sales cycle and implementation procedures. Given the significant investment and commitment of resources required by an organization to implement our software, our sales cycle may be longer compared to companies in other industries. It may in some cases take several months, or even several quarters, for marketing opportunities to materialize into sales. If a customer's decision to license our software is delayed or if the installation of our products takes longer than originally anticipated, the date on which we may recognize revenue from these licenses would be delayed. Such delays could cause volatility in our reported revenues from period to period.

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. Since January 1, 2009 our common stock has traded at prices as low as $1.35 and as high as $8.06 per share. Fluctuations in our stock price may continue to occur in response to various factors, many of which we cannot control, including:

- general economic and political conditions and specific conditions in the markets we address, including the continued volatility in the energy industry and the general economy;
- quarter-to-quarter variations in our operating results;
- announcements of changes in our senior management;
- the gain or loss of one or more significant customers or suppliers;
- announcements of technological innovations or new products by our competitors, customers or us;
- the gain or loss of market share in any of our markets;
- changes in accounting rules;
- changes in investor perceptions; or
- changes in expectations relating to our products, plans and strategic position or those of our competitors or customers.

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

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

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

As of March 15, 2010, 14,219,148 shares of our common stock were issued and outstanding. As of that date we had 233,306 warrants outstanding and exercisable with an exercise price of $4.50 and 1,421,831 options outstanding and exercisable with a weighted average exercise price of $3.52 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 15, 2010, 280,834 options are outstanding, but have not yet vested and are not yet exercisable.

In addition, we expect to issue approximately 1.2 million additional shares in connection with our pending acquisitions of GridSense and Decision Dynamics, 660,000 of which will be freely tradable upon issuance, 440,000 within six months of issuance and the balance one year after issuance.

ITEM 2. PROPERTIES

Our corporate activities are conducted in office space in Wilmington, Delaware. The annual rent is approximately $18,000 under a lease that expires in June 2010.

SCR-Tech leases approximately 126,000 square feet of office, production, laboratory and warehouse space in Charlotte, North Carolina. The annual rent is approximately $644,000. This lease expires on June 30, 2012, with two options to renew for five years each. In September 2009, SCR-Tech entered into an agreement to lease approximately 7.3 acres of land in Charlotte, North Carolina together with a building containing approximately 143,500 square feet of office and warehouse space. SCR-Tech entered into this lease in order to begin operating a second manufacturing, warehousing and research and development facility. SCR-Tech is initially leasing 98,460 square feet through August 31, 2010, and will lease the balance of the 45,040 square feet on or before September 1, 2010. Lease payments on the initial 98,460 square feet and the balance of 45,040 square feet are abated until June 2010 and March 2011, respectively. Annual rent after the abatement period is approximately $399,000.

Our DSIT subsidiary’s activities are conducted in approximately 17,000 square feet of office space in the Tel Aviv, Israel metropolitan area under a lease that expires in August 2012. The annual rent is approximately $236,000. DSIT's lease calls for a rent-free period for January and February 2010.

Our Coreworx subsidiary’s activities are conducted in approximately 8,600 square feet of office space in Kitchener, Ontario, Canada under a lease that expires in December 2010. The annual rent is approximately $180,000. In addition, Coreworx maintains sales offices for operations in Calgary, Alberta, and Houston, Texas.

ITEM 3. LEGAL PROCEEDINGS

Lawsuit filed by SCR-Tech against Evonik Energy Services, LLC and Others

In August, 2008 SCR-Tech filed suit (the “Evonik Lawsuit”) in Superior Court, Mecklenburg County, North Carolina against Evonik LLC, Evonik Energy Services GmbH, Evonik Steag GmbH, Evonik Industries AG, Hans-Ulrich Hartenstein and Brigitte Hartenstein (collectively, the “Evonik Defendants”). Evonik Energy Services GmbH, Evonik Steag GmbH, and Evonik Industries AG are collectively hereinafter sometimes referred to as the “Evonik German Entities”. Hans-Ulrich Hartenstein (“H.Hartenstein”) is the president of Evonik LLC, and Brigitte Hartenstein (“B.Hartenstein”) is the chief financial officer of Evonik LLC. Prior to joining Evonik LLC H.Hartenstein served as president of SCR-Tech and B.Hartenstein served as chief financial officer of SCR-Tech.

In the lawsuit, SCR-Tech has alleged, among other things, that H.Hartenstein and B.Hartenstein materially breached confidentiality agreements which they entered into with SCR-Tech, Evonik LLC tortiously interfered with the contractual obligations of H.Hartenstein and B.Hartenstein under confidentiality agreements, the Evonik Defendants misappropriated SCR-Tech’s catalyst regeneration trade secrets, H.Hartenstein and B.Hartenstein impermissibly disclosed SCR-Tech’s trade secrets and Evonik LLC impermissibly acquired, disclosed or used SCR-Tech’s catalyst regeneration trade secrets. SCR-Tech has requested damages against each of the Evonik Defendants in an amount in excess of $10,000 to be determined at the time of trial plus interest, costs and attorney’ fees.

Evonik LLC filed an answer and counterclaim against SCR-Tech in October, 2008. In its answer, Evonik LLC denies any liability to SCR-Tech and has denied wrong doing. Evonik LLC’s answer contains counterclaims against SCR-Tech to the effect, among other things, that SCR-Tech defamed Evonik LLC, and as a result of such defamation Evonik LLC’s standing, business goodwill and reputation have been damaged. In connection with such counterclaims, Evonik LLC alleges that it has been damaged in each case in an amount in excess of $10,000 and it is entitled to treble damages and punitive damages in addition to its costs, interest and reasonable attorney’ fees. We believe the counter-claims to be without merit.

On February 25, 2010, the Evonik Defendants filed two separate dispositive motions and a request to delay discovery until the court has ruled on such motions. The Evonik Defendants have moved for summary judgment on the grounds that, among other things, SCR-Tech’s claimed trade secrets and confidential information are non-existent and SCR-Tech lacks the requisite standing to maintain the lawsuits. SCR-Tech is currently in the process of preparing responses to these motions.

Due to the complexity of the matters involved in the lawsuit and the fact that some of the defendants are located in Germany, it is not possible to predict the length of time it will take for the lawsuit to be resolved either by settlement or trial. As of March 15, 2010, no meaningful settlement talks have occurred nor have any been scheduled.

Lawsuit filed by Environmental Energy Services, Inc. against CoaLogix

In August, 2008, CoaLogix and its CEO, William McMahon, were sued in U.S. District Court, District of Connecticut, by Environmental Energy Systems, Inc. (“EES”). In its complaint, EES has alleged that CoaLogix and Mr. McMahon improperly acquired knowledge of IFS-2C through their dealings with EES in connection with a letter of intent entered into by CoaLogix and EES, tortiously interfered with EES’s business relationship with Solucorp Industries, Ltd., and engaged in unfair and deceptive trade practices, and Solucorp’s license of IFS-2C to CoaLogix is invalid. EES’s complaint requests that all of CoaLogix’s revenues relating to IFS-2C (i.e. MetalliFix) be awarded to EES, and EES has also requested unspecified damages together with attorney fees, court costs and interest be assessed against CoaLogix and awarded to EES.

CoaLogix and Mr. McMahon deny liability to EES, and contend that EES' allegations are without merit. The discovery and mediation phases of the litigation have concluded, and CoaLogix and Mr. McMahon are in the process of preparing a motion for summary judgment to dismiss the lawsuit on the grounds that, among other things, EES has failed to establish tortious conduct and any basis for EES having been damaged.

Due to the complexity of the matters involved in the lawsuit, it is not possible to predict the length of time it will take for the lawsuit to be resolved either by settlement or trial.

ITEM 4. RESERVED

PART II

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

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
2008:		
First Quarter	$ 5.80	$ 4.20
Second Quarter	6.56	4.25
Third Quarter	5.41	3.48
Fourth Quarter	$ 3.50	$ 1.35
2009:		
First Quarter	$ 2.55	$ 1.56
Second Quarter	2.99	2.26
Third Quarter	5.81	2.67
Fourth Quarter	8.06	5.29

As of March 15, 2010, the last reported sales price of our common stock on the Nasdaq Global Market was $6.17, there were 77 record holders of our common stock and we estimate that there were approximately 2,200 beneficial owners of our common stock.

We paid no dividends in 2008 or 2009, and do not intend to pay any dividends in 2010.

Issuer Purchases of Equity Securities

On October 6, 2008, we announced that our Board of Directors had authorized a share repurchase program of up to 1,000,000 shares of our common stock. The share repurchase program will be implemented at management's discretion from time to time. To date, an aggregate of 497,710 shares have been purchased. We last purchased shares under the program in July 2009 and currently have no plans to make additional purchases.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for the years ended December 31, 2008 and 2009 and consolidated balance sheet data as of December 31, 2008 and 2009 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, 2005, 2006 and 2007 and the selected consolidated balance sheet data as of December 31, 2005, 2006 and 2007 has been derived from our audited consolidated financial statements not included herein.

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

Selected Consolidated Statement of Operations Data:

	For the Years Ended December 31,				
	2005	2006	2007	2008	2009
	(in thousands, except per share data)				
Revenues	$ 4,187	$ 4,117	$ 5,660	$ 20,696	$ 31,317
Cost of sales	2,945	2,763	4,248	14,163	17,765
Gross profit	1,242	1,354	1,412	6,533	13,552
Research and development expenses (net of SRED credits of $1,016 in 2009)	53	324	415	1,169	569
Acquired in-process research and development	—	—	—	2,444	—
Selling, general and administrative expenses	3,464	4,618	5,278	11,667	18,517
Impairments	—	40	112	3,664	2,692
Operating loss	(2,275)	(3,628)	(4,393)	(12,411)	(8,226)
Finance expense, net	(12)	(30)	(1,585)	(3,031)	(231)
Gain on early redemption of Convertible Debentures	—	—	—	1,259	—
Gain on Comverge IPO	—	—	16,169	—	—
Gain on sale of shares in Comverge	—	—	23,124	8,861	1,403
Gain (loss) on private placement of equity investments	—	—	(37)	7	—
Other income, net	—	330	—	—	—
Income (loss) from operations before taxes on income	(2,287)	(3,328)	33,278	(5,315)	(7,054)
Income tax benefit (expense)	37	(183)	445	(342)	744
Income (loss) from operations of the Company and its consolidated subsidiaries	(2,250)	(3,511)	33,723	(5,657)	(6,310)
Share of losses in Comverge	(380)	(210)	—	—	—
Share of income (losses) in Paketeria	—	(424)	(1,206)	(1,560)	263
Share of losses in GridSense	—	—	—	(926)	(129)
Income (loss) from continuing operations	(2,630)	(4,145)	32,517	(8,143)	(6,176)
Gain (loss) on sale of discontinued operations and contract settlement (in 2006), net of income taxes	541	(2,069)	—	—	—
Income from discontinued operations , net of income taxes	844		—	—	—
Net income (loss).	(1,245)	(6,214)	—	(8,143)	(6,176)
Net (income) loss attributable to non-controlling interests	(73)	78	—	248	420
Net income (loss) attributable to Acorn Energy, Inc shareholders.	$ (1,318)	$ (6,136)	$ 32,517	$ (7,895)	$ (5,756)
Basic net income (loss) per share attributable to Acorn Energy, Inc. shareholders:					
Income (loss) from continuing operations.	$ (0.26)	$ (0.48)	$ 3.30	$ (0.69)	$ (0.50)
Discontinued operations .	0.10	(0.23)	—	—	—
Net income (loss) per share attributable to Acorn Energy Inc. shareholders	$ (0.16)	$ (0.71)	$ 3.30	$ (0.69)	$ (0.50)

Weighted average number of shares outstanding attributable to Acorn Energy Inc shareholders		8,117		8,689		9,848		11,374		11,445
Diluted net income (loss) per share attributable to Acorn Energy Inc. shareholders:										
Income (loss) from continuing operations attributable to Acorn Energy Inc. shareholders	$	(0.26)	$	(0.48)	$	2.80	$	(0.69)	$	(0.50)
Discontinued operations		0.10		(0.23)		—		—		—
Net income (loss) per share	$	(0.16)	$	(0.71)	$	2.80	$	(0.69)	$	(0.50)
Weighted average number of shares outstanding attributable to Acorn Energy Inc. shareholders		8,117		8,689		12,177		11,374		11,445

Selected Consolidated Balance Sheet Data:

	As of December 31,				
	2005	2006	2007	2008	2009
			(in thousands)		
Working capital	$ 1,458	$ 259	$ 13,843	$ 13,838	$ 16,220
Total assets	10,173	7,258	96,967	51,055	48,735
Short-term and long-term debt	365	788	5,010	3,845	835
Total Acorn Energy, Inc. shareholders' equity (deficit)	820	(461)	67,325	33,448	30,777
Non-controlling interests	—	—	—	2,675	5,321
Total equity (deficit)	820	(461)	67,325	36,123	36,098

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

RECENT DEVELOPMENTS

GridSense

On November 4, 2009 we entered into a binding letter of intent with GridSense Pty Ltd and the principal stockholders of GridSense to acquire all of the outstanding shares of GridSense that the Company does not already own. This letter of intent has expired, but the parties are proceeding to consummate the transaction on substantially the same terms as set forth in the letter of intent. We currently own 15,714,285 shares of GridSense representing approximately 31% of GridSense's outstanding shares. Immediately prior to the completion of the acquisition, we intend to convert a GridSense promissory note in the principal amount of approximately $730,000 plus accrued interest into approximately 8,861,096 GridSense shares which, after giving effect to other simultaneous issuances of GridSense shares, would result in us owning 24,575,381 shares of GridSense representing approximately 41% of GridSense's outstanding shares.

Under the terms of the transaction, we would acquire the outstanding GridSense shares that are not owned by us in consideration for approximately 55,000 shares of the Company's common stock. Under the letter of intent these shares were at the time valued at $5.91 per share which was the volume weighted average of our common stock for the 20 trading days preceding October 16, 2009. In addition, we would acquire $1,128,339 principal amount of promissory notes of GridSense at a price equal to the principal amount plus accrued interest. Under the letter of intent, 50% of the purchase price of the notes would be paid in cash and 50% would be paid in shares of our common stock, valued at $5.91 per share, which would result in the issuance of approximately 150,000 shares of our common stock. In addition, we have agreed to provide to GridSense at closing with approximately $600,000 to be used to pay a shareholder loan.

Under the letter of intent, we have also agreed to pay an earn-out to the shareholders of GridSense as part of the consideration for their shares. To the extent that GridSense's sales for the period April 1, 2010 through March 31, 2011 exceed $4,383,720, we would pay the GridSense shareholders an amount equal to 50% of that excess, up to $2,435,400, multiplied by 59.54% (representing their ownership interest in GridSense) for a maximum earn-out of $1,449,799. We have the option of paying any earn-out in cash and/or shares of our common stock. If we use shares as all or part of the payment, each share would be valued as the volume weighted average price of our common stock on the 20 trading days preceding the date of the issuance of the auditor's report relating to the Company's 2010 financial statements.

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The shares of common stock which are issued in consideration for acquiring the debt, including any shares issued in payment of the earn-out, would be subject to an escrow for possible indemnity claims and a lock-up, with 50% of the shares released after six months and the balance one year after issuance. The shares of common stock which are issued in consideration for acquiring Gridsense's shares would be subject to restrictive legends providing that 50% of the shares will be released after six months and the balance released one year after issuance.

When we signed the letter of intent, we loaned GridSense $550,000 which accrues interest at 8% per annum and is due in October 2011. On March 4, 2010 we loaned GridSense an additional $200,000 at 8% interest per annum that is due in March, 2012. If the transaction to acquire GridSense does not close or is terminated, the Company may declare the unpaid principal and accrued interest on those notes (as well as $730,000 of principal amount of GridSense notes that the Company holds plus accrued interest) immediately due and payable and the Company has the right to convert such indebtedness into shares of GridSense.

If the GridSense acquisition is completed, the Company has agreed to provide GridSense with up to $1,800,000 in working capital which may be in the form of debt or equity.

Definitive documentation for the GridSense acquisition is being prepared and the transaction is expected to close by the end of April 2010.

DSIT

In December 2009, DSIT was awarded a contract to supply its AquaShield™ Diver Detection Sonar (DDS) systems for the protection of several coastal and offshore installations. The contract value is just over $4.4 million. The AquaShield™ underwater security systems are intended for permanent installation to provide underwater intruder detection.

US Sensor Systems

On February 23, 2010, we entered into an option agreement with US Sensor Systems Inc., or USSI, a company which designs, integrates, manufactures, and sells fiber optic sensing systems and solutions for the energy, defense and security markets, and a related option agreement with certain stockholders of USSI. We currently own 146,386 shares of USSI's common stock which we purchased for $500,000 and which represents approximately 10.0% of USSI's fully diluted capitalization.

Under the terms of the option agreement with USSI, we have the right to acquire up to an additional 159,115 shares of USSI's common stock for a purchase price of $500,000. We have the right to acquire 63,646 of these shares under the option in consideration for payment of $200,000 on or before May 31, 2010. If we exercise this installment, we have the right to acquire the remaining 95,469 shares under the option on or before August 27, 2010 in consideration for payment of $300,000.

Under our agreement with certain of USSI's stockholders, we have the right to acquire 516,378 shares of USSI common stock held by such stockholders in consideration for payment to them of $2,111,986 on or before August 27, 2010. The purchase price is payable in Acorn common stock which shall be priced on the basis of the volume weighted average of Acorn's common stock on the 20 trading days ending on the day that is five days preceding the date that we exercise its option to acquire the shares of the USSI stockholders. The shares of common stock that are issued to the USSI stockholders in consideration for their shares would be restricted securities under Securities Act of 1933 and would be subject to a lock-up which would be released over a one year period, with 25% being released each three months. If we exercise the options described in this and in the preceding paragraph, we would own common stock of USSI representing approximately 51% of USSI's fully diluted capitalization.

Under the agreement with USSI, if we exercise the options to acquire USSI's common stock described in the two preceding paragraphs, we would have the right to acquire 1,693,391 additional shares of USSI's common stock from USSI on or before November 30, 2010 in consideration for payment of $1,500,000. If we exercise this option, we have the right to acquire 1,693,391 additional shares of common stock from USSI on or before May 30, 2011 in consideration for payment of $1,500,000.

If we purchase all of the USSI common stock we are entitled to purchase under the agreements, we would hold USSI shares representing approximately 84% of USSI's fully diluted capitalization.

Contemplated Acquisition of Decision Dynamics

On March 2, 2010, we entered into a definitive agreement pursuant to which our wholly-owned Coreworx subsidiary would acquire all of the issued and outstanding common stock of Decision Dynamics Technology Ltd., a Canadian corporation ("Decision Dynamics"). Decision Dynamics, a TSX Venture Exchange-traded company, is a leading provider of capital project controls and cost management software for normal operations and capital projects in the energy industry.

As contemplated by the definitive agreement, Coreworx would acquire all of the issued and outstanding securities of Decision Dynamics in consideration for issuance of 1,000,000 shares of Acorn Energy common stock to the Decision Dynamics shareholders. The acquisition is structured as a plan of arrangement under the Canada Business Corporations Act and is subject to the satisfaction of a number of closing conditions, including approval by the holders of at least two-thirds of the outstanding common shares and options of Decision Dynamics, each voting as a separate class, the approval of the Court of Queen's Bench of Alberta and other regulatory approvals. The acquisition will be submitted to Decision Dynamics' shareholders and option holders for approval at a special meeting which is expected to be held in April 2010. The Board of Directors of Decision Dynamics has unanimously recommended that Decision Dynamics' shareholders and option holders vote in favor of the acquisition. Irrevocable support agreements in favor of the transaction have been agreed to by persons holding approximately 51% of the outstanding shares and 94% of the outstanding stock options.

Of our shares to be issued in the transaction, at least 340,000 are to be escrowed at closing, with one-half to be released 90 days after the date of closing and the balance to be released 180 days after the date of closing. We anticipate that the shares that we issue to the Decision Dynamics shareholders will be freely tradable under US federal securities laws.

Under the agreement, Decision Dynamics agreed not to solicit any other sale, business combination or similar transaction. The agreement provides that if Decision Dynamics receives an unsolicited alternative proposal with a higher transaction value from a third party and we fail to match such proposal, Decision Dynamics may be permitted to agree to the third party proposal, subject to payment to us of a break-up fee in the amount of C$250,000 plus our transaction costs.

Subject to obtaining the required approvals, the transaction is expected to close in April 2010.

Corporate

In January 2010, Acorn appointed David T. Beatson as Vice President and Chief Technology Officer. His responsibilities will include building relations with major energy companies and academic institutions as well as strengthening and expanding the technology portfolio of Acorn Energy.

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Capital Raise

On March 8, 2010, we entered into a Placement Agency Agreement with Merriman Curhan Ford & Co. related to a registered direct offering of up to 2,213,818 shares of our common stock (the “Offering”). Under the terms of the transaction and pursuant to separate subscription agreements between us and each of the investors, we sold the common stock at $5.50 per share to certain accredited investors for gross proceeds of approximately $12,275,000. The closing of the Offering took place on March 11, 2010.

The aggregate net proceeds from the Offering, after deducting the placement agent’s fee and the estimated offering expenses payable by us in connection with the Offering, are expected to be approximately $11.5 million.

SEC Inquiry Regarding Comverge Share Transactions

Acorn and its Chairman and Chief Executive Officer, John A. Moore, have received subpoenas from the staff of the SEC for information about their transactions in the shares of Comverge, Inc. from January 1, 2008 through October 31, 2008. The SEC staff has advised the Company that issuance of the subpoenas should not be construed as an indication by the SEC staff that any violation of the law has occurred, nor should it be considered a reflection upon any person, entity or security.

The Company believes that all of its and Mr. Moore’s transactions in Comverge shares were made in full compliance with all laws. The Company and Mr. Moore have responded to the SEC staff and are committed to responding fully to any inquiries of the SEC staff. In the course of responding to the SEC staff's inquiry, the Company's counsel has not identified any information indicating that the transactions in Comverge stock by the Company or Mr. Moore were in violation of any applicable laws.

OVERVIEW AND TREND INFORMATION

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

We operate in three reportable segments: CoaLogix, Naval and RT Solutions and EIS. We acquired our interest in Coreworx which comprises our EIS segment on August 13, 2008; our results for 2008 include Coreworx’ results only for the period following the acquisition date.

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

CoaLogix

In December 2008, CoaLogix completed its expansion to its SCR-Tech regeneration facility. The expansion increased the overall efficiency of the facility and approximately doubled its throughput capacity. This expansion will enable SCR-Tech to meet the growing demands of the catalyst and catalyst regeneration markets.

CoaLogix revenues in 2009 were $18.1 million compared to 2008 revenues of $10.1 million. The increase in CoaLogix's revenues in 2009 compared to 2008 is due to increased penetration in the growing regeneration market. CoaLogix revenues in the fourth quarter of 2009 of $5.3 million represent a 15% increase over fourth quarter 2008 revenues of $4.7 million and an 89% increase in third quarter 2009 revenues of $2.8 million. The year-on-year increase in revenues was attributable largely to increased production volume facilitated by the plant expansion. The increase from third quarter 2009 revenues was due primarily to seasonal factors since power plants typically do not schedule service of the catalyst systems during the spring and summer ozone months. During that time, CoaLogix increased its inventory of SCR modules available for sale by processing them during these periods of excess production capacity.

CoaLogix gross profit in 2009 was $6.3 million compared to 2008 gross profit of $2.5 million. The increase in CoaLogix gross profit in 2009 was attributable to both the increase in revenues combined with increased efficiencies in production. Gross margins increased from 24% in 2008 to 35% in 2009. Gross margins in 2008 were negatively impacted due to certain projects being performed with negative margins caused by longer than expected times to complete these projects and by higher costs of the raw materials due to the product mix.

CoaLogix gross profit in the fourth quarter of 2009 was $2.1 million representing a $0.5 million (34%) increase over the gross profit of $1.6 million recorded by CoaLogix in the fourth quarter of 2008. CoaLogix gross profit in the fourth quarter of 2009 also represented a $1.4 million increase in gross profit compared to the third quarter of 2009. The increase in CoaLogix fourth quarter gross profit for 2009 over 2008 was attributable to increased sales combined with improved efficiencies. The increase in CoaLogix fourth quarter 2009 gross profit compared to the third quarter of 2009 was attributable to the increase in sales ($2.5 million) combined with third quarter gross profit being negatively impacted due to seasonal factors since power plants typically do not schedule service of the catalyst systems during the spring and summer ozone months.

In April 2009, we entered into the Purchase Agreement with CoaLogix, EnerTech Capital Partners III L.P. (“EnerTech”) and certain members of CoaLogix’s senior management pursuant to which Acorn and EnerTech each agreed to purchase from CoaLogix 781,111 shares of common stock for a purchase price of $5.6 million, and certain members of CoaLogix’s senior management agreed to purchase 36,111 shares of common stock of CoaLogix for an aggregate purchase price of approximately $260,000. Proceeds of the sale of the common stock will be used by CoaLogix for plant expansion, technology development, legal expenses and computer software. To date, CoaLogix has received approximately $5.6 million of the total $11.5 million commitment by Acorn, EnerTech and management. A majority of the expenditures to date has been for technology development and legal costs associated with pending legal actions to which CoaLogix is a party (Item 3. Legal Proceedings), with a portion also being used as a security deposit for guarantees provided the CoaLogix. In the coming year, CoaLogix expects to invest significant portions of the remaining funds ($5.9 million) in developing its new facilities and legal fees with respect to the abovementioned legal actions.

During 2009, CoaLogix engaged an outside firm to assist CoaLogix with the determination of the economic viability of MetalliFix. On December 18, 2009, the outside firm issued its assessment that MetalliFix is not economically viable and not competitive with other commercial products for mercury control that are currently available. On December 30, 2009, the management of CoaLogix determined that a material impairment of MetalliFix had occurred. Accordingly, CoaLogix recorded an impairment charge of the remaining unamortized balance of the Solucorp license ($1.7 million) as well as associated assets (chemicals - $0.4 million and prepaid chemicals - $0.3 million).

In 2010, we expect CoaLogix to improve on its 2009 results based upon on its year-end backlog for SCR services of $9.2 million and anticipated new orders combined with the expected increased capacity from its second facility expected to begin operations in the end of the second quarter of 2010.

DSIT Solutions

In 2009, DSIT continued to focus on marketing and developing its Naval solutions products; particularly its products related to underwater security for energy and other strategic sites. Revenue of our DSIT subsidiary increased by $0.8 million, or 10%, from $8.4 million in 2008 to $9.2 million in 2009. The increase was due to increased revenue in the Naval and RT Solutions segment while Other revenue remained stable. Fourth quarter 2009 revenue for DSIT was $2.7 million reflecting a $0.7 million increase (36%) over fourth quarter 2008 revenue of $2.0 million.

Gross profit in DSIT in 2009 was $4.0 million which reflects an increase of $1.2 million or 41% from $2.9 million in 2008. DSIT's gross profit of $1.3 million during the fourth quarter of 2009 represented a $0.6 million increase over DSIT's gross profit in the fourth quarter of 2008. The increase in gross profit was attributable to both increased revenue and increased gross margins.

DSIT's improved its gross margin to 44% in 2009 as compared to 34% in 2008. DSIT's increased gross margins were due to a shifting of focus to higher margin Naval projects in 2009.

Naval & RT Solutions

During 2008 and 2009, revenues from our Naval & RT solutions in our DSIT subsidiary were $7.2 million and $8.0 million, respectively, accounting for approximately 85% and 87% of DSIT's revenues for 2008 and 2009, respectively. The balance of DSIT's revenues of $1.2 million for each of the years ending December 31, 2008 and 2009, were derived from DSIT's other IT and consulting activities.

Segment revenues increased by $0.8 million or 11% in 2009 as compared to 2008. The increase in sales was the result of revenue recorded from the sale of DSIT's AquaShield™ DDS systems to an undisclosed EMEA customer which was partially offset by a decrease in revenues recorded in other real-time and embedded hardware and software projects.

Segment gross profit also increased (from $2.4 million in 2008 to $3.5 million in 2009) as a result of the increased sales and change in revenue mix which was concentrated in higher margin Naval projects. The change in revenue mix to higher margin Naval projects increased our segment gross margin from 35% in 2008 to 44% in 2009.

We anticipate continued growth in sales in 2010, particularly from our acoustic and sonar solutions projects with our embedded hardware and software development projects expected to remain relatively stable. At end of 2009, we have received $4.4 million of new orders for our AquaShield™ DDS. DSIT recorded net income of $1.3 million in 2009 ($0.5 million in 2008) and expects 2010 to be profitable as well.

Coreworx

Coreworx, which we acquired on August 13, 2008, had sales in 2009 of C$4.6 million compared to full year 2008 sales of C$4.4 million. The increase in Coreworx' sales in 2009 compared to 2008 was principally due to new license sales. Coreworx' gross profit in 2009 was C$3.8 million compared to 2008 gross profit of C$3.7 million. Coreworx gross margin was relatively stable in 2009 compared to 2008.

Coreworx generally sells its software on a per-seat license basis. Coreworx' profit margin depends upon the customer's requirements for a particular project and the resources Coreworx has to devote to such project.

In June 2009, Acorn lent $1.0 million to Coreworx to support its development of a new project information software for the nuclear power plant industry. During the second half of 2009, Coreworx continued its increased focus on providing its software solutions to the nuclear power industry. Coreworx is planning to deliver a nuclear industry solution that addresses project execution and information control requirements for major refurbishment, modifications to the original plant design to increase the maximum capacity output at which the plant can operate and new build projects. The nuclear industry solution will address regulatory compliance, document traceability, and work processes that utilize best practices in managing major capital projects. Market conditions that Coreworx believes will drive nuclear solutions as a growing source of revenue include: an increasing world-wide energy demand, an aging North American nuclear infrastructure, and public pressure to provide clean-air electricity sources that reduce dependency on overseas supplies of fossil fuel. In December 2009, Coreworx received its first order for its nuclear industry solution from Babcock & Wilcox Nuclear Power Generation, Inc. ("B&W"). B&W will employ Coreworx support software in the development, licensing and delivery of the innovative new B&W mPower nuclear reactor.

In the period from January 1, 2010 to March 15, 2010, Acorn lent an additional $2.2 million to Coreworx for its product development and for working capital. Coreworx will require additional working capital support to accelerate its nuclear and contract management product offerings in order to achieve market readiness in mid 2010. This support may be in the form of a bank line, new investment by others, additional loans 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 and on acceptable terms. The availability and amount of any additional funding to Coreworx from us may be limited by the working capital needs of our corporate activities and other operating companies.

In 2010, we expect Coreworx to improve on its 2009 results based upon several factors which include the launching of an aggressive marketing program, hiring of additional sales staff, realization of its 2009 Latin American development program, offering more products and cross-selling opportunities attributable to the planned Decision Dynamics Technology Ltd. (“DDY”) acquisition (See “Recent Developments”). In 2010, Coreworx plans to significantly invest in its marketing activities including trade show and industry association participation, integrated web and email marketing, additional lead generation activities and analyst relations. By February, 2010 Coreworx had more than doubled its sales force from 2009 including sales coverage specifically for the nuclear industry in North America and Australian based sales coverage. For the second half of 2010, Coreworx plans to develop a channel of business partners in the Latin American region and expects to begin generating revenue from this channel in the latter half of 2010. In addition, beginning in the first quarter of 2010, Coreworx plans to introduce a net new product line each quarter effectively tripling its overall target market.

Corporate

At the end of 2008, we began an effort to streamline our corporate costs. Towards that end, we have took several steps in order to conserve our corporate cash including hiring in-house counsel, reducing personnel, consulting and marketing costs. The result of those steps can be seen in the decrease in our corporate administrative expenses (excluding non-cash stock compensation expense) which were reduced from $3.4 million in 2008 to $2.7 million in 2009. We believe our corporate administrative expenses in 2010 will increase as we have recently hired a CTO to build relations with major energy companies and academic institutions as well as to strengthen and expand our technology portfolio. We expect to continue to have significant corporate expenses and will continue to expend in the future, significant amounts of funds on professional fees and other costs in connection with our strategy to seek out and invest in companies that fit our target business model.

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 tha