DAIS ANALYTIC CORP Form 10-K March 31, 2011 Table of Contents

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

- **X** ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Fiscal Year Ended December 31, 2010
- " TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT 1934

For the transition period from to

Commission file number: 000-53554

DAIS ANALYTIC CORPORATION

(Exact name of registrant as specified in its charter)

New York (State or Other Jurisdiction of 14-1760865 (I.R.S. Employer

Incorporation or Organization)

Identification No.)

11552 Prosperous Drive

Odessa, Florida 33556 (Address of Principal Executive Offices) (Zip Code) Registrant s telephone number, including area code: (727) 375-8484

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

None

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

Common Stock, par value \$0.01 per share

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 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 (Section 232.405) during the preceding 12 months. 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 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 " (Do not check if a smaller reporting company)

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately \$5,665,810 as of the last business day of the registrant s most recently completed second fiscal quarter, based upon the closing sale price on the OTC:BB reported for such date. Shares of common stock held by each officer and director and by each person who owns 10% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 29, 2011, the Registrant had 33,580,928 outstanding shares of its common stock, \$0.01 par value.

Documents incorporated by reference: none

DAIS ANALYTIC CORPORATION

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PART I

INTRODUCTORY NOTE

FORWARD-LOOKING STATEMENTS

Information contained or incorporated by reference in this Annual Report may include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. This information may involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from the future results, performance or achievements expressed or implied by any forward-looking statements. Forward-looking statements, which involve assumptions and describe our future plans, strategies and expectations, are generally identifiable by use of the words may, should, expect, anticipate, estimate, believe, intend or project or the negative of these words or other variations on these words or comparable terminology.

This Annual Report on Form 10-K contains forward-looking statements, including statements regarding, among other things:

our ability to continue as a going concern;
our ability to achieve and maintain profitability;
the price volatility of the common stock;
the historically low trading volume of the common stock;
our ability to manage and fund our growth;
the short period of time we have employed certain of our executive officers;
our ability to attract and retain qualified personnel;
litigation;
our ability to do business overseas;
our ability to compete with current and future competitors;
our short operating history;
our ability to obtain additional financing;

general economic and business conditions;

other risks and uncertainties included in the section of this document titled Risk Factors; and

other factors discussed in our other filings made with the Commission.

These statements may be found under Management s Discussion and Analysis and Description of Business, as well as in other sections of this Annual Report generally. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors, including, without limitation, the risks outlined under Risk Factors and matters described in this Annual Report generally. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this Annual Report will in fact occur. We have no obligation to publicly update or revise these forward-looking statements to reflect new information, future events, or otherwise, except as required by applicable Federal securities laws, and we caution you not to place undue reliance on these forward-looking statements.

Third Party Data

This Form 10K also contains estimates and other information concerning our industry, including market size and growth rates, which are based on industry publications, surveys and forecasts, including those generated by us. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to these estimates. Although we believe the information in these industry publications, surveys and forecasts is reliable, we have not independently verified the accuracy or completeness of the information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in Risk Factors.

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ITEM 1. BUSINESS

Dais Analytic Corporation is a nano-structure polymer technology materials company that has developed and is commercializing applications using its materials. The first commercial product is called ConsERV , a fixed plate energy recovery ventilator which we believe is useful in meeting building indoor fresh air requirements while saving energy and lowering emissions for most forms of Heating, Ventilation and Air Conditioning (HVAC) equipment. We are developing other nano-structure polymer technology applications including (i) NanoAir , a water based packaged heating and cooling system and (ii) NanoClear , a water clean-up process useful in the creation of potable water from sea, brackish or waste water. We further believe that our nano-structure polymer technology may be useful in developing an ultra-capacitor, a device that may be capable of greater energy density and power per pound than traditional capacitors or batteries.

Formation History

We were incorporated as a New York corporation on April 8, 1993 as Dais Corporation. We subsequently changed our name to Dais Analytic Corporation on December 13, 1999. We were formed to develop new, cost-effective polymer materials for various applications, including providing a lower cost membrane material for Polymer Electrolyte Membrane (PEM) fuel cells. We believe our research on materials science has yielded technological advances in the field of selective ion transport polymer materials.

In December 1999, we purchased the assets of Analytic Power Corporation, which was founded in 1984 to provide fuel cell and fuel processor design and consulting services, systems integration and analysis services to develop integrated fuel cell power systems, and we were re-named Dais Analytic Corporation. Analytic Power Corporation developed a portfolio of fuel cell and related fuel cell component technologies, including fuel cell stack designs, a membrane electrode assembly process, and natural gas, propane, diesel and ammonia fuel processors for use in creating integrated fuel cell systems.

In March 2002, we sold substantially all of our fuel cell assets to a large U.S. oil company for a combination of cash and the assumption by such company of certain of our obligations. After we sold a substantial portion of our fuel cell assets, we focused on expanding our nano-structured polymer platform, having already identified the Energy Recovery Ventilator (ERV) application as our first commercial product.

Technology

We use proprietary nano-technology to reformulate thermoplastic materials called polymers. Nano-technology involves studying and working with matter on an ultra-small scale. One nanometer is one-millionth of a millimeter and a single human hair is around 80,000 nanometers in width. Polymers are chemical, plastic-like compounds used in diverse products such as Dacron, Teflon, and polyurethane. A thermoplastic is a material that is plastic or deformable, melts to a liquid when heated and to a brittle, glassy state when cooled sufficiently.

These reformulated polymers have properties that allow them to be used in unique ways. We transform polymers from a hard, water impermeable substance into a material which water and similar liquids can, under certain conditions, diffuse (although there are no openings in the material) as molecules as opposed to liquid water. Water and similar liquids penetrate the thermoplastic material at the molecular level without oxygen and other atmospheric gases penetrating the material. It is believed this selectivity is dependent on the size and type of a particular molecule.

Products

ConsERV

We currently have commercialized the ConsERV $\,$ product. ConsERV is an HVAC energy conservation product which should, according to various tests, save an average of up to 30% on HVAC ventilation air operating costs, lower $\rm CO_2$ emissions and allow HVAC equipment to be up to 30% smaller, reducing peak energy usage by up to 20% while simultaneously improving indoor air quality. This product makes HVAC systems operate more

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efficiently and results, in many cases, in energy and cost savings. ConsERV attaches onto existing HVAC systems, typically in commercial buildings, to provide ventilation within the structure. It pre-conditions the incoming air by passing through our nano-technology polymer which has been formed into a heat exchanger core. The nano-technology heat exchanger uses the stale building air that must be simultaneously exhausted to transfer heat and moisture into or out of the incoming air. For summer air conditioning, the core removes some of the heat and humidity from the incoming air, transferring it to the exhaust air stream thereby, under certain conditions, saving energy. For winter heating, the core transfers a portion of the heat and humidity into the incoming air from the exhaust air stream thereby often saving energy.

Our ConsERV product is the primary focus of our resources and commercialization efforts. When compared to similar competitive products, we believe based on test results conducted by the Air-Conditioning, Heating and Refrigeration Institute (AHRI), a leading industry association, ConsERV is twice as effective in managing latent and sensible heat. We expect ConsERV to continue to be our focused commercial product through 2011 with a growing emphasis on moving components of NanoAir technologies towards commercialization.

How ConsERV Works

Most building codes mandate commercial structures to provide certain levels of ventilation determined by use and occupancy. ERVs are systems used by HVAC manufacturers to increase energy efficiencies in HVAC units by transferring heat and humidity between air flows. They do this by capturing a portion of the energy already used to heat or cool air that is being released to the outside and use such released air to condition the incoming air stream. In an air conditioning application, heat and humidity that are part of the incoming air stream are transferred to the cool, dry exhaust air, thereby pre-conditioning the incoming air before it reaches the building s air conditioning system. By pre-conditioning the incoming air, ERVs should increase the operating efficiency of the HVAC unit, thereby lowering the overall costs associated with heating and cooling buildings and potentially reducing the size and initial capital cost of the overall HVAC unit.

ConsERV has a core component made using our nano-structured material and may be described as a high-performance ERV. It is used in conjunction with a building s HVAC equipment. The ConsERV energy recovery ventilator employs nano-technology based materials to create an exchange of sensible (temperature) and latent (humidity) energy between the two air streams using HVAC equipment to provide building ventilation. The first air stream typically exits a building at the temperature and relative humidity level set by the buildings air conditioning and heating equipment. The second air stream comes from the outside environment at a different temperature and relative humidity level and is used to bring outdoor air to the occupants of the building. The ConsERV product uses the energy found in the first air stream (air already cooler or heated) to condition the second air stream (the outdoor air coming in) before the second air stream (outside air) enters the HVAC equipment. The ConsERV product may save energy, in that it often reduces the required energy and size of the HVAC equipment and thereby may lower the cost of providing ventilation. In addition, it may lower carbon dioxide emissions because the HVAC equipment may not need to be used as frequently and often times can be reduced in size to provide the same levels of comfort indoors. The process is shown in the picture below.

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Given third-party test data, our ConsERV product, with its nano-structured materials, offers better total performance than other fixed plate ERV products of which we are aware, with no moving parts and little or no cross-air stream contamination. Our ConsERV core product has received UL 900 recognition and Air-Conditioning, Heating and Refrigeration Institute (AHRI) standard 1060 certification. Our ConsERV product is compatible with most commercial HVAC units and requires only a small amount of additional HVAC technical expertise to install. We believe the purchase and installation costs of our ConsERV product are comparable to the costs of many competing energy recovery products and our ConsERV product is more efficient in transferring moisture with lower life cycle maintenance costs.

Achieving increased sales revenue growth from our ConsERV product is predicated on the success in seven key areas:

Achieving continued engineering or technological improvements in key materials to lower our per unit cost structure.

Engineering of additional sizes and add-on components (such as coils, heaters, dampers, new fan options and controls) to ConsERV systems to meet market demands

Development of new core designs to meet broad spectrum of performance needs

Continuing to implement Lean Manufacturing techniques for in-house assembly processes as well as monitoring existing outsourced manufacturing and assembly relationships that lower our per unit cost structure.

Securing additional depth in the sales channels including adding more independent sales representatives, supplying HVAC equipment manufacturers, as well as ERV Original Equipment Manufacturers (OEM) (or Licensees), with presence in existing and evolving sales channels as our customers or partners to sell worldwide in-country or region.

Recruiting and retaining the necessary people and infrastructure to support sales growth of ConsERV and other products as they are introduced into their respective sales channels.

Access to sufficient working capital in a timely manner for the necessary steps outlined above to continue without interruption. We are devoting varying amounts of time to other uses of our nano-structured products in ways which are not disruptive to the key ConsERV effort. To date, only small revenues have been generated from these non-ConsERV related applications.

Air-Conditioning, Heating, and Refrigeration Institute (AHRI) May 2008 test results. This study is publicly available and was not prepared for our benefit or funded by us.

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These product applications and activities include:

NanoAir

Water Based packaged HVAC system or NanoAir: We expect this application would function to dehumidify and cool air in warm weather, or humidify and heat in cold weather. This NanoAir application may be capable of replacing a traditional refrigerant loop based heating/cooling system. The Company has a small prototype showing fundamental heating, cooling, humidification, and dehumidification operation of this evolving product. The NanoAir product is in the middle stage of prototype development. The Company received a grant of \$681,322 from the US Department of Energy s Advanced Research Projects Agency Energy (ARPA-E) in September of 2010, and grant of \$254,500 from Pasco County, Florida in December of 2010. Both grants are designed to assist us to get the NanoAir family of products into commercialization sooner.

NanoClear

Water Clean-up or NanoClear: We expect that this application would function to remove quantities of salt and other impurities from water to produce potable water using an environmentally friendly design that would use less energy and be less expensive than most other current methods. We have developed a series of functional demonstration units which highlight the basics of how this system works using the Company s nano-structured materials to produce potable water from a number of types of contaminated water streams. The information accumulated from the demonstration units is being used as the basis for the product s next planned inflexion point: the buildup of a 10m3 (approximately 26,500 gallons of clean water per day) pilot plant projected to be set up at a local County waste water treatment facility. The NanoClear product is currently in beta stage where it is to undergo further testing and scaling.

NanoCap

Ultra-capacitor: Based on initial material tests conducted by two third parties, we believe that by applying a combination of our nano-materials we may be able to construct a device which stores energy similar to a battery with projected increases in energy density and lifetimes. We believe the key application for such a device would be in transportation. We have not invested significant resources to date in the development of this product.

Detailed information including development stage and estimated funding and time to market follows:

Application	Current Stage	Estimated Funding Required Commercialize	Estimated Time to Market (post funding)
Energy Recovery Ventilation (ConsERV) An energy efficient process that exchanges heat and humidity between incoming and outgoing airstreams to increase fresh air within commercial and residential facilities	Varied - Additional components to meet market demand are necessary	\$ 1.9 Million	Commercial
Water Clean up (NanoClear) A process using a low temperature, low pressure approach to process brackish, salt, and waste water into potable water.	1st Stage Beta	\$ 3.0 Million	6 48 months
Advanced Heating, Ventilating, and Air Conditioning (NanoAir) A process using the nano technology materials to create an advanced heating, ventilating, and air conditioning system.	1st Stage Beta	\$ 4.0 Million	6 48 months
Ultracapacitor if fully developed, may have a greater energy density and power per pound than traditional capacitors or the batteries on the market today.	Base materials testing underway by third party to confirm the effectiveness of the Company s materials in the application.	\$ 500,000	2

Current activities are moving us closer to the optimization of materials.

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The Company has identified other potential products for its materials and processes. Some have basic data to support the needed functionality and market differentiation of a product based on using our nano-technology based inventions. Such applications include immersion coatings and performance fabrics. These other products are based, in part, upon the known functionality of the Company s materials and processes.

Patents

We own the rights to seven U.S. patents, three pending U.S. patent applications, and four Patent Cooperation Treaty (PCT) applications. National stage applications based on one of the PCT application have been filed in the U.S., China, Hong Kong and Europe. In addition, we co-own two PCT applications with Aegis Biosciences LLC, a biomaterials drug delivery technology company. National stage applications based on one of the co-owned PCT applications have been filed in the U.S., China, Hong Kong and Europe, and a National stage application based on the other co-owned PCT application has been filed in the U.S. and China. These patents relate to, or are applications of, our nano-structured polymer materials that perform functions such as ion exchange and modification of surface properties. The polymers are selectively permeable to polar materials, such as water, in molecular form. Selective permeability allows these materials to function as a nano-filter in various transfer applications. These materials are made from base polymer resins available from a number of commercial firms worldwide and possess what we believe to be some unique and controllable properties, such as:

Selectivity: Based on our research, we believe that when the polymer is made there are small channels created that are 5 to 30 nanometers in diameter. There are two types of these channels: hydrophilic (water permeable), and hydrophobic (water impermeable). The channels can be chemically tuned to be selective for the ions or molecules they transfer. The selectivity of the polymer can be adjusted to efficiently transfer water molecules from one face to the other using these channels.

High transfer rate: Based on in-house testing protocols and related results, we have found that the channels created when casting the materials into a nano-structured membrane have a transfer rate of water, or flux, greater than 90% of an equivalent area of an open tube. This feature is fundamental to the material s ability to transfer moisture at the molecular level while substantially allowing or disallowing the transfer of certain other substances at a molecular level.

Unique surface characteristic: The materials offer a surface characteristic that we believe inhibits the growth of bacteria, fungus and algae and prevents adhesives from attaching.

The molecular selectivity, transfer rate and surface coating properties, coupled with our ability to produce the nano-structured materials at what we believe is an affordable price, distinguishes our technology and value-added products. By incorporating our nano-structured materials into existing products, we strive to address current real-

Estimated time to market (post funding) for the Ultracapacitor cannot be determined at this time because it is subject to completion of materials testing.

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world market needs by offering what we believe to be higher efficiencies and improved price performance. For example, there are other energy recovery mechanisms available for HVAC that use coated paper or desiccant technology instead of our highly efficient nano-structured polymer materials.

Manufacturing

We do not have long term contractual relationships with any of our manufacturers or vendors. The only product or service which we could not have purchased elsewhere and used in the on-going growth of the ConsERV business is the plastic based sheet good. In progress is a project aimed at lessening the Company s exposure in this sheet good area. All purchases to date of raw materials and related services have been on a purchase order basis using non-disclosure agreements. Our manufacturing process is described below.

Polymer Membrane

Commercially available polymer resin in flake form and industrial grade solvents are mixed together using a proprietary process involving heat, industrial mixers, and solvents. The resin and the solvents are commercially available from any number of chemical supply houses, or firms such as Dow and Kraton (formerly Shell Elastomers then part of Royal Dutch Shell). Our process changes the molecular properties of the starting polymer resins into a liquid material which we believe gives the attribute of being selective in what molecules it will allow through the plastic, which includes water molecules. This process, called sulfonation , is done at facilities around the world known as Toll Houses. These are firms which specialize in making small lot (by industry standards) runs of specialty chemicals.

Plastic Based Sheet Good

A thin coating of the liquid polymer material is applied on one side of the sheet good by a tape casting firm of which there are many in the United States. The coated sheet good is heated to rapidly dry the liquid material thus bonding the polymer solution and rolled sheet good together. The resulting modified sheet good is then re-coiled into rolls and shipped to us. Currently one vendor provides this to us. We have not sought additional vendors for this component. However, we have identified other entities making similar types of products and believe such entities and products may provide alternatives should one be required. As noted above the Company is actively working on this project to lower its exposure.

The Core

The modified sheet good is cut into defined dimensions and glued to a PVC formed spacer. This spacer/glued modified sheet good is a single layer. Multiple layers are stacked one on top the other until a certain height is achieved. Once the proper height is achieved, these layers are then fitted with a galvanized sheet metal plate on the top and bottom of the stack along with galvanized sheet metal $\,Y\,$ shaped bracket on each of the four corners of the assembly. This assembly is called a core . The galvanized sheet metal is a world-wide commodity material formed to our specifications by local and out-of-town sheet metal forming companies. We have no long term contractual relationships with firms making the PVC spacers, supplying the glue, supplying rivets to hold the structure together, and the sheet metal firms making the top and bottom plate as well as the side rails.

Completion

For the complete ConsERV system, one or more cores are placed inside of aluminum or steel boxes built by a vendor or us. The box may or may not also be fitted with an electric motor, fan, electric relay, and electrical disconnect. Inclusion or exclusion of the electric motor and fan is dictated by the customers needs and current HVAC system. Once outfitted with cores, the product is complete. We have no long term contractual relationships with firms providing the aluminum or steel parts used to build the box, the motors, the fans, the relays, or the electrical disconnects.

Licensing

While we have earned licensing revenue under agreements licensing our technology in the past, we may not receive any material revenue from these agreements in the near or foreseeable future.

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Research and Development

The Company has spent approximately \$338,000 (gross) and \$6,600 on research and development during the years ended December 31, 2010 and 2009, respectively. During the year ended December 31, 2010, the Company received \$99,000 to offset the cost of research and development expenses as it relates to a project that is funded by grants from Pasco County and the Department of Energy, American Economic Investment and Recovery Act.

Key Relationships

We have strategic relationships with leaders in the energy industry who have entered into sales, marketing, distribution and product development arrangements with us and, in some cases, hold equity in our Company. They include:

Electric Power Research Institute (EPRI)

We have an on-going relationship with a number of utilities through EPRI. The EPRI participants include Public Service Company of New Mexico, Kansas City Power & Light, Reliant Energy Incorporated, Alliant Energy Company, Omaha Public Power District, Wisconsin Public Service Corporation, Southern California Gas Company, EDF Electricite de France, Consolidated Edison of New York, Tokyo Gas Co., Ltd., CINERGY Corporation, Northern States Power Company, American Electric Power Company, Inc., Sierra Pacific Power Company, Public Service Electric & Gas Company (PSE&G), and Tennessee Valley Authority. The EPRI users group has been helpful in creating opportunities for us to define specifications and applications for our nano-structured materials that address existing energy related challenges while possibly opening new sources of revenue.

Genertec America, Inc (Genertec)

On August 21, 2009, we entered into an Exclusive Distribution Agreement with Genertec, under which we are to supply and Genertec is to distribute, on an exclusive basis, three of our nanotechnology-based membrane products and related products in Great China, including mainland China, Hong Kong, Macau and Taiwan. The agreement provides that during the initial term of the agreement, Genertec will order and purchase these products in the aggregate amount of Two Hundred Million U.S. Dollars. A minimum quantity of said products is to be purchased by Genertec during each contract year of the initial term. In the event Genertec fails to purchase the minimum amount of products in any given year, we may convert the exclusivity provided to Genertec to a non-exclusive or terminate the agreement. Genertec has agreed to engage and appoint authorized person(s) or firm(s), to install, engineer, perform maintenance, sell and use the products within the defined distribution area and neither Genertec nor its designated buyer is permitted to alter, decompile or modify our products in any way. As consideration for entering into this agreement, Genertec agreed to pay us a deposit in monthly installments beginning in September 2009 and continuing through April, 2010. All such payments are to be applied to products purchased by Genertec. During the initial term of the agreement, the parties are to negotiate in good faith a royalty bearing license agreement whereby Genertec may be granted a license to manufacture certain portions of the our products in the designated territory. The initial term of the agreement shall be for a period of five (5) years, commencing on August 21, 2009, unless earlier terminated. Unless notice of termination is delivered to the respective parties 180 days prior to the expiration of the initial term, the Agreement will automatically renew for consecutive one year periods. We may terminate this agreement in the event: (1) Genertec fails to pay the deposit as indicated, (2) Genertec does not purchase the minimum amount of our designated products during any contract year, (3) breach by Genertec of its obligations under the Agreement, or (4) at our discretion immediately upon the transfer of fifty percent (50%) or more of either the assets of the voting stock of Genertec to any third party. Genertec may not assign the Agreement to any party without our prior written consent. As of December 31, 2010, the Company has \$406,356 in accounts receivable and \$500,000 in deferred revenue to be applied against future orders. Genertec America s partners in China have received the product and are continuing to perform tests; however there have been delays in completing this testing process. As a result, Genertec America has not yet begun to order product from the Company under this agreement. The Company is currently meeting with Genertec to resolve the payment of the receivable and expects that the amounts will be collected.

In April 2010, the Company entered into a technical and sales agreement with CAST Systems Control Technology Co., Ltd. (CAST) and Genertec with a value of up to approximately \$48 million U.S. Dollars over a twelve month period. Under the terms of the Agreement, the Company will supply to CAST, through Genertec, key system components of its nanotechnology clean water process. The Agreement is conditioned upon the Company obtaining

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a letter of credit from Genertec in the amount as agreed to by the parties on or before April 13, 2010. As of the date of this filing, the Company has received the required letter of credit from Genertec. This Agreement, the terms of which are disclosed in the Company s Current Report on Form 8-K, filed on April 9, 2010, is made pursuant to and in support of the \$200 million distribution agreement made between the Company and Genertec on August 21, 2009, granting Genertec the exclusive right to obtain, distribute and market the Company s nanotechnology-based membrane and related products in China, including mainland China, Hong Kong, Macau and Taiwan, the terms of which are summarized above and more fully disclosed in the Company s Current Report on Form 8-K, filed August 27, 2009. For the year ended December 31, 2010, the Company has sold one unit under this agreement and recognized \$300,000 in revenue which has been billed and \$254,000 of which has been collected. The Company expects the remainder of the \$300,000 receivable to be collected in 2011.

ConsERV Sales and Marketing Strategies

We market our ConsERV product in North America principally through alliances with local independent manufacturer representatives. We currently have 39 independent commercial sales representatives in various locations throughout North America selling the ConsERV product. We intend to increase the number of commercial independent sales representatives to more than 70 to properly cover the North American commercial sales territory. We are also working to secure ongoing relationships with other leading industry HVAC manufacturers and other ERV manufacturers. Other potential and targeted sales channels for the ConsERV product are energy service companies and HVAC product distributorships. We continue to leverage our relationship with EPRI and a group of 16 utility companies (consisting of EPRI members and some of our minority shareholders) into expected sources of future product sales through the introduction of demand reduction incentives. As interest has grown in ConsERV and growth begins in NanoAir we have decided to bring in an HVAC industry veteran to oversee the sales and marketing of ConsERV as well as to prepare to integrate the NanoAir applications as they come available for commercialization. In January 2010, the Company hired a new Vice President of Sales and Marketing who possesses 25 years of experience in the HVAC industry. Additionally this growth found our manufacturing efforts in need of bolstering. In June 2010 we hired a General Manager of Operations and Manufacturing (LEAN certified, 18 plus years of experience in growing running, and optimizing manufacturing organization to run the manufacturing effort, and to plan for the Company s projected future manufacturing/assembly expansion.

Future Products Sales and Marketing Strategies

Our intended sales and marketing strategy will require us to create alliances with companies having strong, existing channel presence in the target industries. We intend to bring industry seasoned executive talent into the Company at the appropriate time to influence the product s feature set, and to then to establish and grow the market development and revenue generation of the NanoAir, and NanoClear product. We believe working with OEM s who are industry leaders during development allows us to better address the market s needs and possibly accelerate the time to market cycle.

Competition and Barriers to Entry

We believe the efficacy of our value-added products and technology has the ability to decrease sales of competing products, thus taking business away from more established firms using older technology. We believe that our ConsERV product may become a functional component of newer, more efficient OEM products. Our key challenge is to educate channel decision makers of the benefits of products made using our materials and processes to overcome the strength of the current product sales.

There are a number of companies located in the United States, Canada, Europe and Asia that have been developing and selling technologies and products in the energy recovery industry, including but not limited to: Semco, Greenheck, Venmar, Bry-Air, dPoint, Renewaire and AirXchange.

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We will experience significant competition regarding our products because certain competing companies possess greater financial and personal resources than us. Future product competitors include, but are not limited to:

Products Current and Future Competitors

ConsERV Semco, Greenheck, Venmar, Bry-Air, dPoint, Renewaire and AirXchange.

NanoClear Dow, Siemens, GE

NanoAir AAON, Trane, Carrier, York, Hier, Mitsubishi, LG

Ultracapacitor Maxwell, Ioxus, B&D

We believe that the combination of our nano-material platform s characteristics (high selectivity, high flux rate, manufacturability, et al.), growing patent position, and possible first to market position, are competitive advantages, which may allow us time to execute our business plan. Competitors may experience barriers to entry in these markets primarily related to the lack of similarly performing proprietary materials and processes.

Intellectual Property

As stated above, we have seven granted U.S. patents, including patents covering the composition and structure of a family of ion conducting polymers and membranes and applications of the polymer. We believe some of these patents make reference to applications relating to the materials we are developing. Please see the Risk Factors Section of this Annual Report. A list of our existing patents follows:

- 1. Patent No. 6,841,601 Cross-linked polymer electrolyte membranes for heat and moisture exchange devices. This patent was issued on January 11, 2005 and expires March 12, 2022.
- 2. Patent No. 6,413,298 Water and ion-conducting membranes and uses thereof. This patent was issued on July 2, 2002 and expires July 27, 2020.
- 3. Patent No. 6,383,391 Water and ion-conducting membranes and uses thereof. This patent was issued on May 7, 2002 and expires on July 27, 2020.
- 4. Patent No. 6,110,616 Ion-conducting membrane for fuel cell. This patent was issued on August 29, 2000 and expires on January 29, 2018.
- 5. Patent No. 5,679,482 Fuel Cell incorporating novel ion-conducting membrane. This patent was issued on October 21, 1997 and expires on October 20, 2014.
- 6. Patent No. 5,468,574 Fuel Cell incorporating novel ion-conducting membrane. This patent was issued on October 21, 1995 and expires on May 22, 2014.
- 7. Patent No. 7,179,860 Cross-linked polymer electrolyte membranes for heat, ion and moisture exchange devices. This patent was issued on February 20, 2007 and expires on March 11, 2022.

We have provisional and patent applications in the following areas: Advanced Polymer Synthesis Processes, Reversible Liquid to Air Enthalpy Core Applications and Construction, Nanoparticle Ultra Capacitor and Water Treatment and Desalination.

The following is a partial list of the patent applications publicly visible:

- 1. WO20080316678 Nanoparticle Ultra Capacitor
- 2. WO/2008/039779 Enhanced HVAC System and Method
- 3. WO/2008/089484 Multiphase selective Transport Through a Membrane
- 4. WO/2008/141179 Molecule Sulphonation Process *
- 5. WO/2009/002984 Stable and Compatible Polymer Blends*
- 6. WO2009/002984 Novel Coblock Polymers and Methods for Making Same

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* Patent applications jointly owned with Aegis Biosciences, LLC.

Patents may or may not be granted on these applications. As noted above, two of these applications are jointly owned with Aegis Biosciences, LLC. We also seek to protect our proprietary intellectual property, including intellectual property that may not be patented or patentable, in part by confidentiality agreements with our current and prospective strategic partners and employees.

Government Regulation

We do not believe the sale, installation or use of our nano-structured products will be subject to any government regulation, other than perhaps adherence to building codes, military specifications, and water safety regulations governing products used in HVAC, military clothing, immersion coatings, and water treatment and desalination. We do not believe that the cost of complying with such codes and regulations, to the extent applicable to our products, will be prohibitive.

We do not know the extent to which any existing or new regulations may affect our ability to distribute, install and service any of our products. Once our products reach the commercialization stage and we begin distributing them to our target markets, federal, state or local governmental entities may seek to impose regulations.

We are also subject to various international, federal, state and local laws and regulations relating to, among other things, land use, safe working conditions, and environmental regulations regarding handling and disposal of hazardous and potentially hazardous substances and emissions of pollutants into the atmosphere. Our business may expose us to the risk of harmful substances escaping into the environment, resulting in potential personal injury or loss of life, damage to or destruction of property, and natural resource damage. Depending on the nature of the claim, our current insurance policies may not adequately reimburse us for costs incurred in settling environmental damage claims, and in some instances, we may not be reimbursed at all. To date, we are not aware of any claims or liabilities under these existing laws and regulations that would materially affect our results of operations or financial condition.

Employees

As of December 31, 2010, we employed 22 full-time employees and one part time employee in our Odessa, Florida facility. Of the 23 employees we have 6 technicians, 2 product managers, 1 polymer chemist, 1 polymer engineer, 4 engineers, 1 Chief Technology Officer Development, 1 General Manager of Operations, 2 administrative assistants, 2 administrators, 1 Vice President of Sales, 1 Chief Financial Officer and 1 President and Chief Executive Officer. None of the employees are subject to a collective bargaining agreement. We consider our relations with our employees to be good.

Principal Offices

Our principal office is located at 11552 Prosperous Drive, Odessa, FL 33556.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below. Our business, financial condition, results of operations or cash flows could be materially adversely affected by any of these risks. The valuation for the Company could also decline due to any of these risks, and you may lose all or part of your investment. This document also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of several factors, including the risks faced by us described below and elsewhere in this Annual Report. In assessing these risks, you should also refer to the other information contained in this Annual Report, including our financial statements and related notes.

Risks Related to Our Business

Our independent registered public accounting firm has issued an unqualified opinion with an explanatory paragraph to the effect that there is substantial doubt about our ability to continue as a going concern.

Our independent registered public accounting firm has issued an unqualified opinion with an explanatory paragraph to the effect that there is substantial doubt about our ability to continue as a going concern. This unqualified opinion with an explanatory paragraph could have a material adverse effect on our business, financial condition, results of operations and cash flows. See Management s Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources and Notes to our financial statements for the fiscal year ended December 31, 2010, included elsewhere in this filing.

We have no committed sources of capital and do not know whether additional financing will be available when needed on terms that are acceptable, if at all. This going concern statement from our independent registered public accounting firm may discourage some investors from purchasing our stock or providing alternative capital financing. The failure to satisfy our capital requirements will adversely affect our business, financial condition, results of operations and prospects.

Unless we raise additional funds, either through the sale of equity securities or one or more collaborative arrangements, we will not have sufficient funds to continue operations. Even if we take these actions, they may be insufficient, particularly if our costs are higher than projected or unforeseen expenses arise.

When due, we may be unable to repay or secure an extension on the \$1,620,000 in unsecured promissory notes outstanding as of the date hereof. If we are unable to reach an agreement with our note holders, the note holders could foreclose on our assets, which ultimately could require us to curtail or cease our operations.

The Company does not currently have and does not expect to attain adequate funds for repayment of these notes from its current operations. Although the Company intends to continue to finance its operations, including the repayment of these unsecured notes, primarily through private sales of debt and equity securities, it may not be able to secure additional financing to repay the notes on acceptable terms, if at all. Further, many of these notes contain a limitation on the amount of debt the Company can incur prior to repayment of the note. Hence, unless the note holders waive the debt limit we may not be able to avail ourselves of sufficient financing should it be available. Further one of these notes provides the holder with the option of participating in any additional financing we may undertake which could substantially dilute existing shareholders. If we are unable to secure financing to repay the notes we will seek to re-negotiate the notes. However, there is no guarantee that all note holders will accept any offer we may make and some or all of the note holders may request additional concessions from the Company for any accommodation we do secure. Any such additional consideration would likely be offered to all such note holders. Any terms we may be able to secure may not be favorable to the Company. Unfavorable terms would adversely impact our business, financial condition and/or results of operations. In the event we are unable to secure additional financing sufficient to pay the notes prior to the maturity date and we are not able to renegotiate the terms of the notes the note holders will have the option to either foreclose, which would have material adverse consequences on our business operations, financial condition, results of operations and cash flows and possibly result in the failure of our business.

We may lose all our patents and patent applications if we are unable to repay or convert the principal and interest on the outstanding \$1.5 million 10% interest secured convertible note we issued on March 22, 2011 when due.

We may not have adequate funds to repay the \$1,500,000 10% convertible note currently outstanding when due and do not expect to attain adequate funds for repayment from operations. The note is secured by all of our patents and patent applications. Our success depends, to a significant extent, on the technology that is incorporated in our product and the underlying patents and patent applications securing this note. We intend to continue to finance our operations, including the repayment of this note, primarily through sales of debt and equity securities. We may not be able to secure additional financing to repay the note on acceptable terms, if at all. If we are not able to repay this note there is no guarantee that the note holder will accept any offer we may make with regard to extending or converting this note. Further, the note holder may request additional concessions from us in return for extending or converting the note. Any re-negotiated terms we may be able to secure may not be favorable to us. Unfavorable terms, in either a financing transaction or debt renegotiation, would adversely impact our business, financial condition and/or results of operations. In the event (i) we are unable to secure additional financing sufficient to pay

this note, (ii) this note is not converted into shares of our common stock, or (iii) we are not able to renegotiate the terms of this convertible note, the note holder will have the option to foreclose on all of our patents and patent applications securing the notes, which would likely result in the failure of our business.

We have a history of operating losses, and we expect our operating losses to continue for the foreseeable future. If we fail to obtain additional financing we may be unable to execute our business plan and/or we may not continue as a going concern.

We have incurred substantial losses since we were funded in 1993 and have not achieved profitability in any year to date. We have developed a family of nano-structured polymers and processes and are now marketing our first product application, ConsERV. We anticipate the other listed applications in this document may take at least 6 to 48 months to develop. We expect our operating losses to continue for the foreseeable future as we continue to expend substantial resources to expand the ConsERV business while working to bring the identified applications to the market including research and development, design and testing, obtaining third party validations, identifying and securing collaborative partnerships, executing to enter into strategic relationships, or selling materials or value-added components. Furthermore, even if we achieve our projection of selling a greater number of ConsERV units in 2011, we anticipate that we will continue to incur losses until we can cost-effectively produce and sell our products to a wider market. Our accumulated deficit was \$35,637,962 as of December 31, 2010. It is possible that we will never generate sufficient revenue to achieve and sustain profitability. Even if we achieve profitability, we may not be able to sustain or increase profitability.

We financed our operations since inception primarily through private sales of its common and preferred stock, issuance of convertible promissory notes; issuance of unsecured promissory notes, cash received in connection with exercise of warrants, license fees and the sale of certain fuel cell assets in 2002. As of December 31, 2010, we had \$1,745,019 of current assets.

Although we have filed a registration statement on Form S-1 with the SEC for a contemplated public offering of common stock for gross offering proceeds of up to fifteen million dollars, we have not entered into an underwriting agreement with the underwriting of the contemplated offering, MDB Capital Group LLC, and we may not be able to consummate a public offering at all.

Even if we are successful in raising additional equity capital to fund our operations, we will still be required to raise an additional substantial amount of capital in the future to fund our development initiatives and to achieve profitability. Our ability to fund our future operating requirements will depend on many factors, including the following:

ability to obtain funding from third parties;

progress on research and development programs;

time and costs required to gain third party approvals;

costs of manufacturing, marketing and distributing its products;

costs of filing, prosecuting and enforcing patents, patent applications, patent claims and trademarks;

status of competing products; and

market acceptance and third-party reimbursement of its products, if successfully developed.

There are no assurances that future funding will be available on favorable terms or at all. If additional funding is not obtained, we will need to reduce, defer or cancel development programs and planned initiatives, to the extent necessary. The failure to fund our capital requirements would have a material adverse effect on our business, financial condition and results of operations.

Failure to achieve and maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have a material adverse effect on our business and operating results. In addition, current and potential stockholders could lose confidence in our financial reporting, which could have a material adverse effect on our stock price.

Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. If we cannot provide reliable financial reports or prevent fraud, our operating results could be harmed.

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We are required to document and test our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act, which requires annual management assessments of the effectiveness of our internal controls over financial reporting. During the course of our testing, we may identify deficiencies which we may not be able to remediate in time for compliance with the requirements of Section 404. In addition, if we fail to maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time; we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act. Failure to achieve and maintain an effective internal control environment could also cause investors to lose confidence in our reported financial information, which could have a material adverse effect on our stock price.

The Company's CEO and CFO identified a material weakness in our internal controls over financial reporting relating to the accounting and disclosure for complex and non-standard common stock warrant transactions, which required the Company to restate its financial statements for the year ended December 31, 2009 as provided herein. To address our Company's material weakness related to the accounting and disclosure for complex and non-standard stockholders' equity transactions, we are in the process of enhancing our internal control processes in order to be able to comprehensively review the accounting and disclosure implications of such transactions on a timely basis.

We cannot provide assurance as to the result of these efforts. We cannot be certain that any measures we take will ensure that we implement and maintain adequate internal controls in the future. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations.

In the event the lease on our corporate office and production space is terminated, we may not be able to acquire a lease on another suitable property, or a lease on a suitable property at a comparable cost.

The lease on our corporate office and production space may be terminated upon 30 days prior written notice by either party. If this lease is terminated, we may not be able to acquire another lease for another suitable property or a lease on a suitable property at a comparable cost in a timely manner, which could materially disrupt our operations. Even if we are able to relocate into another suitable property at a comparable cost in a timely manner, we would incur significant moving expenses.

Our future indebtedness could adversely affect our financial health.

We have and may continue to incur a significant amount of indebtedness to finance our operations and growth. Any such indebtedness could result in negative consequences to us, including:

increasing our vulnerability to general adverse economic and industry conditions;

requiring a portion of our cash flow from operations be used for the payment of interest on our debt, thereby reducing our ability to use our cash flow to fund working capital, capital expenditures and general corporate requirements;

limiting our ability to obtain additional financing to fund future working capital, capital expenditures and general corporate requirements;

limiting our flexibility in planning for, or reacting to, changes in our business;

placing us at a competitive disadvantage to competitors who have less indebtedness; and

as the majority of our assets are pledged to current debt holders, the failure to meet the terms and conditions of the debt instruments, or a failure to timely rearrange the current terms and conditions of the notes, if so required, will result in us having no access to our technology.

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The recent economic downturn has affected, and is likely to continue to adversely affect, our operations and financial condition potentially impacting our ability to continue as a going concern.

The recent economic downturn has resulted in a reduction in new construction and less than favorable credit markets, both of which may adversely affect us. Certain vendors from which we currently secure parts for our ConsERV product have and may continue to either reduce or eliminate payment terms. Hence, more capital is required to secure parts necessary to produce our products. In addition, our products are often incorporated in new construction which has experienced a decided down turn in project starts over the past year and such trend is expected for 2011. Although the portion of new construction most affected is home sales, which represents a minority of our sales, commercial construction has also experienced a reduction in starts with some projects being delayed and possibly eliminated. If the commercial construction market stagnates or decreases in volume or project size, our operations and financial condition could be negatively impacted. Expenditures under the United States economic stimulus plan appear to have targeted energy products. ConsERV may qualify under said program and we may potentially benefit from such program. However, when and if we will experience any increase in sales or investment due to this program is uncertain. As noted above, we intend to continue to finance operations, including the repayment of all outstanding debt, including but not limited to the convertible secured note and unsecured promissory notes, primarily through sales of debt and equity securities. In light of the recent economic downturn we may not be able to secure additional financing on acceptable terms, if at all. Unfavorable terms for a financing transaction would adversely impact our business, financial condition and/or results of operations. In the event we are unable to secure additional financing our business may fail.

If we fail to successfully address the challenges, risks and uncertainties associated with operating as a public company, our business, results of operations and financial condition would be materially harmed.

We have and will continue to incur a significant increase in costs as a result of operating as a public company, and our management has and will be required to devote substantial time to new compliance initiatives. Until November of 2008 we had never operated as a public company. In preparation for and since reporting as a public company, we have and expect to continue to incur significant legal, accounting and other expenses that we did not incur as a non-reporting company. In addition, the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act), as well as new rules subsequently implemented by the Securities and Exchange Commission (the SEC) and various stock exchanges, has imposed many new requirements on public companies, including requiring changes in corporate governance practices. Our management and other personnel have and will continue to devote a substantial amount of time to these new compliance procedures.

We have and will continue to incur significant increased costs as a result of operation as a public company, and our management has and will continue to be required to devote substantial time to new compliance initiatives.

As a public company, we are now subject to the reporting requirements of the Securities and Exchange Act of 1934, as amended (the Exchange Act), the Sarbanes-Oxley Act and the rules promulgated by the SEC and the NASDAQ Global Market in response to the Sarbanes-Oxley Act. The requirements of these rules and regulations have and will continue to significantly increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and may strain our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and financial condition. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal controls for financial reporting. As a result, management s attention may be diverted from other business concerns, which could have a material adverse effect on our business, financial condition and results of operations.

If we or our independent registered public accounting firm identifies deficiencies in our internal controls that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by SEC or other regulatory authorities, which would entail expenditure of additional financial and management resources.

These rules and regulations could also make it more difficult for us to attract and retain qualified independent members of our Board of Directors. Additionally, we have found these rules and regulations make it more difficult and more expensive for us to obtain director and officer liability insurance. We have, and may be required once again, to accept reduced policy limits and/or coverage or incur substantially higher costs to obtain the same or similar coverage.

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Our ConsERV product is in small volume production, we have no long term experience manufacturing our products on a commercial basis and may not be able to achieve cost effective large volume production.

Our ConsERV product is built in growing volumes. Our ability to achieve commercial production of that product is subject to significant uncertainties, including: completion of necessary product automation, developing experience in manufacturing and assembly on a large commercial scale; assuring the availability of raw materials and key component parts from third party suppliers; and developing effective means of marketing and selling our product.

We are in the process of assembling our ConsERV product at our facility in Odessa, Florida with overflow being produced by outsourced firms, which limits our capital outlay. Initial production costs of this product line are high with no or a lower than desired profit margin. As a result, we believe we will need to reduce unit production costs, including the nano-structured materials themselves made to our specifications by third parties, over time in order to offer our products at a profitable basis on a commercial scale. Our ability to achieve cost reductions in all areas of nano-structured materials and value added products depends on entering into suitable manufacturing relationships with component suppliers, as well as increasing sales volumes so that we can achieve economies of scale. A failure to achieve a lower cost structure through economies of scale and improvements in engineering and manufacturing in a timely manner would have a material adverse effect on our business and financial results. There can be no assurance that we will obtain higher production levels or that the anticipated sales prices of our products will ever allow an adequate profit margin.

We may not be able to meet our product development and commercialization milestones.

We have established internal product and commercialization milestones and dates for achieving development goals related to technology and design improvements of our products. To achieve these milestones we must complete substantial additional research, development and testing of our products and technologies. Except for our ConsERV product, we anticipate that it will take at least 6 to 48 months from financing to develop and ready for scaled production our other products. Product development and testing are subject to unanticipated and significant delays, expenses and technical or other problems. We cannot guarantee that we will successfully achieve our milestones. Our business strategy depends on acceptance by key market participants and end-users of our products.

Our plans and ability to achieve profitability depend on acceptance by key market participants, such as vendors and marketing partners, and potential end-users of our products. We continue to educate designers and manufacturers of HVAC equipment with respect to our ConsERV product. More generally, the commercialization of our products may also be adversely affected by many factors that are out of our control, including:

willingness of market participants to try a new product and the perceptions of these market participants of the safety	, reliability and
functionality of our products;	

emergence of newer, possibly more effective technologies;

future cost and availability of the raw materials and components needed to manufacture and use our products;

cost competitiveness of our products; and

adoption of new regulatory or industry standards which may adversely affect the use or cost of our products. Accordingly, we cannot predict with any certainty that there will be acceptance of our products on a scale sufficient to support development of mass markets for those products.

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We are dependent on third party suppliers and vendors for the supply of key components for our products.

We are dependent on third parties to manufacture the key components needed for our nano-structured based materials and value added products made with these materials. Accordingly, a supplier s failure to supply components in a timely manner, or to supply components that meet our quality, quantity and cost requirements, technical specifications, or the inability to obtain alternative sources of these components on a timely basis or on terms acceptable to us, would create delays in production of our products or increase unit costs of production. Certain of the components contain proprietary products of our suppliers, or the processes used by our suppliers to manufacture these components are proprietary. If we are required to replace any of our suppliers, while we should be able to obtain comparable components from alternative suppliers at comparable costs, this would create a delay in production. If we experience such delays or our third party suppliers and vendors fail to supply us with components that meet our quality, quantity, or cost standards, we may lose our customers or be subject to product liability claims. Our applications require extensive commercial testing and will take long periods of time to commercialize.

Our nano-structured materials and associated applications need to undergo extensive testing before becoming commercial products. Consequently, the commercialization of our products could be delayed significantly or rendered impractical. Moreover, much of the commercial process testing will be dependent on the efforts of others. Any failure in a manufacturing step or an assembly process may render a given application or our nano-structured material(s) unsuitable or impractical for commercialization. Testing and required development of the manufacturing process will require the expenditure of funds and take time and effort.

We have not devoted any significant resources towards the marketing and sale of our products, we expect to face intense competition in the markets in which we do business, and expect to rely, to a significant extent, on the marketing and sales efforts of third parties that we do not control.

To date, we primarily focused on the sale of the ConsERV and, while we have sold increasing quantities of our products, even by adding staff experienced in the industry we continue to experience a learning curve in the marketing and sale of products on a commercial basis. We expect that the marketing and sale of the ConsERV product will continue to be conducted by a combination of independent manufactures representatives, third-party strategic partners, distributors, or OEMs. Consequently, commercial success of our products will be dependent largely on the efforts of others. We intend to enter into additional strategic marketing and distribution agreements or other collaborative relationships to market and sell our nano-structured materials and value added product. However, we may not be able to identify or establish appropriate relationships in the future. Even if we enter into these types of relationships, we cannot assure you that the distributors or OEMs with which we form relationships will focus adequate resources on selling our products or will be successful in selling them. In addition, our chosen third-party distributors or OEMs may require us to provide volume price discounts and other allowances, customize our products or provide other concessions which could reduce the potential profitability of these relationships. To the extent any strategic relationships that we establish are exclusive, we may not be able to enter into other arrangements at a time when the distributor with which we form a relationship is not successful in selling our products or has reduced its commitment to marketing our products. Failure to develop sufficient distribution and marketing relationships in our target markets will adversely affect our commercialization schedule and, to the extent we enter into such relationships, the failure of our distributors and other third parties in assisting us with the marketing and distribution of our products may adversely affect our financial condition and results of operations.

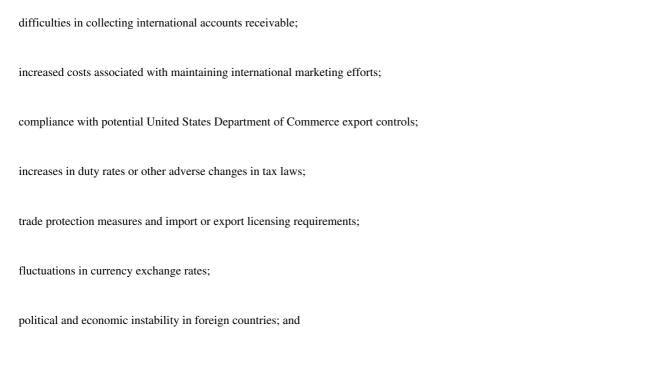
We will face intense competition in the markets for our product applications for our nano-structured materials and value-added products made from these materials. We will compete directly with currently available products, some of which may be less expensive. The companies that make these other products may have established sales relationships and more name-brand recognition in the market than we do. In addition, some of those companies may have significantly greater financial, marketing, manufacturing and other resources.

Our future results could be harmed by economic, political, regulatory and other risks associated with international sales and operations.

We intend to market, distribute and service our products on an international basis and expect to derive a significant portion of our revenue in coming years from international sales. If we fail to successfully sell our products internationally, our ability to increase our future revenue and grow our business would be impaired. We have limited

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experience developing, and no experience manufacturing, our products to comply with the commercial, regulatory and legal requirements of international markets. Our success in those markets will depend on our ability to secure relationships with foreign resellers and our ability to manufacture products that meet foreign regulatory and commercial requirements. In addition, our planned international operations could be harmed by a variety of factors, including but not limited to:



difficulties in securing and enforcing intellectual property rights, foreign (where filed and obtained) or domestic, and time and complexities of vetting and establishing relations with foreign resellers or licensees including but not limited to designing, validating and marketing a product geared specifically to a particular market segment.

We depend on our intellectual property and failure to protect it could enable competitors to market products with similar features that may reduce demand for our products.

We currently have seven United States patents, ten patent applications and co-own six patent applications, some of which apply to the composition and structure of a family of ion conducting polymers and membranes. These patents and patent applications often make reference to applications for, and in some instances, are application patents relating to materials we are developing. Our patent applications may or may not mature into issued patents.

Our success depends, to a significant extent, on the technology that is incorporated in our product. Although some of the inventions which we have obtained or applied for patent protection are no longer suitable for use with our planned products, we believe that some of the other inventions covered by the patents and patent applications are important to the success of our products. If we are unable to protect our intellectual property, competitors could use our intellectual property to market products similar to our products, which could reduce demand for our products. We may be unable to prevent unauthorized parties from attempting to copy or otherwise obtain and use our products or technology. Policing unauthorized use of our technology is difficult, and we may not be able to prevent misappropriation of our technology, particularly in foreign countries where the laws may not protect our intellectual property as fully as those in the United States. Others may circumvent trade secrets, trademarks and copyrights that we own or may own. Any such infringements, or any alleged infringements, could have a material adverse effect on our business, results of operations, and financial condition.

Any of the United States patents or foreign patents owned by us or subsequently issued to us may be invalidated, circumvented, challenged or rendered unenforceable. We may not be issued any patents as a result of our pending and future patent applications and any patents we are issued may not have the claim coverage sought by us or necessary to prevent others from introducing similar products. Any litigation surrounding our patent rights could force us to divert significant financial and other important resources away from our business operations.

Some of our intellectual property is not covered by any patent or patent application. We seek to protect this proprietary intellectual property, which includes intellectual property that may not be patented or patentable, in part by confidentiality agreements with our distributors and employees. These agreements afford only limited protection and may not provide us with adequate remedies for any breach or prevent other persons or institutions from

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asserting rights to intellectual property arising out of these relationships. In addition, we cannot assure you that these agreements will not be breached, that we will have adequate remedies for any such breach or that the parties to such agreements will not assert rights to intellectual property arising out of these relationships.

Members of any scientific advisory board we had in the past or may have in the future have been or may be employed by entities other than us, some of which may compete with us. While we intend to enter into non-competition agreements with our scientific advisors, if any of them were to consult with or become employed by any of our competitors, our business could be negatively affected.

We have entered into agreements with various third parties that may affect our intellectual property rights.

We have entered into agreements with various third parties in connection with the development of various applications for our technology. Those agreements generally provide for the third party to own any resulting intellectual property rights and often provide for the grant of a license to us relating to those rights. We cannot assure you that the terms of any such licenses will not limit our ability to apply such rights to specific applications in competition with the relevant third party, which may adversely affect our business.

Our products employ technology that may unknowingly infringe on the proprietary rights of others, and, as a result, we could become liable for significant damages and suffer other harm.

We cannot assure you that our technologies and products do not or will not infringe on the proprietary rights of third parties or that third parties will not assert infringement claims against us in the future. We are aware of some patents in the nano-materials field held by potential competitors and other third parties. We cannot assure you that a third party will not claim infringement by us with respect to these patents, other patents or proprietary rights, or that we would prevail in any such proceeding. Any such infringement claim, whether meritorious or not, could:

be time-consuming;

result in costly litigation or arbitration and the diversion of technical and management personnel, as well as the diversion of financial resources from business operations;

require us to develop non-infringing technology or seek to enter into royalty or licensing agreements; or

require us to cease use of any infringing technology.

We may not be successful in developing non-infringing technologies. Royalty or licensing agreements, if required, may not be available on terms acceptable to us, or at all, and could significantly harm our business and operating results. A successful claim of infringement arising from the existence of a submarine patent or another existing patent against us or our failure or inability to license the infringed or similar technology could require us to pay substantial damages and could harm our business. In addition, to the extent we agree to indemnify customers or other third parties against infringement of the intellectual property rights of others, a claim of infringement could disrupt or terminate their ability to use, market or sell our products.

We may not be able to control our warranty exposure, which could increase our expenses.

We currently offer and expect to continue to offer a warranty with respect to our ConsERV product and we expect to offer a warranty with each of our future product applications. If the cost of warranty claims exceeds any reserves we may establish for such claims, our results of operations and financial condition could be adversely affected.

We may be exposed to lawsuits and other claims if our products malfunction, which could increase our expenses, harm our reputation and prevent us from growing our business.

Any liability for damages resulting from malfunctions of our products could be substantial, increase our expenses and prevent us from growing or continuing our business. Potential customers may rely on our products for critical needs, such as backup power. A malfunction of our

products could result in warranty claims or other product liability. In addition, a well-publicized actual or perceived problem could adversely affect the market s perception of

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our products. This could result in a decline in demand for our products, which would reduce revenue and harm our business. Further, since our products are used in devices that are manufactured by other manufacturers, we may be subject to product liability claims even if our products do not malfunction.

Our key employees are critical to our success and the loss of any key employees could impair our ability to execute our strategy and grow our business.

Our future success depends, to a significant extent, on the continued service of our executive officers and other key technical, sales and senior management personnel and their ability to execute our growth strategy, all of whom have non-compete agreements with us which may not withstand court review if litigation were to occur. The loss of the services of any of our senior level management or other key employees could harm our business. Our future performance will depend, in part, on our ability to retain management personnel and for our executive officers to work together effectively. Our executive officers may not be successful in carrying out their duties or running our business. Any dissent among executive officers could impair our ability to make strategic decisions.

We have, when required, reduced the salaries of our employees. Such salary reductions may have an adverse effect on our ability to retain key employees.

If we fail to attract, retain and motivate qualified employees, we may be unable to execute our business strategy.

Our future success will depend in part on our ability to attract and retain highly qualified individuals, including researchers, engineers, sales and marketing personnel and management. Competition for these individuals may become intense, and it may become increasingly difficult to attract, assimilate and retain these highly qualified persons. Competitors and others may attempt to recruit our employees. Should we experience attrition or need to augment our staff, the cost of securing personnel may be significantly higher than currently experienced and thus negatively impact our financial position.

Our failure to manage our growth could harm our business.

We may grow in the number of our employees, the size of our physical facilities and the scope of our operations. In addition, we intend to focus greater resource on ConsERV margins, sales/marketing activities and channel expansion, and marketplace education. Any expansion would likely place a significant strain on our senior management team and other internal and external resources. Furthermore, we may be required to hire additional senior management personnel. Our ability to manage growth will depend in part on our ability to continue to enhance our operating, financial and management information systems. Our personnel, systems and controls may be unable to support any growth we may experience and as a result, our financial results would suffer.

Any acquisitions we make could disrupt our business and harm our financial condition.

dilution of our stock if we issue additional securities:

As part of our growth strategy we may review opportunities to acquire other businesses or technologies that would complement our products, expand the breadth of our target markets or enhance our technical capabilities. Acquisitions entail a number of risks that could materially and adversely affect our business and operating results, including but not limited to:

problems integrating the acquired operations, technologies or products with our existing businesses and products; constraints arising from increased expenses and working capital requirements; constraints on our ability to incur debt;

disruption of our ongoing business, diversion of capital and distraction of our management;

difficulties in retaining business relationships with suppliers and customers of acquired companies;

difficulties in coordinating and integrating overall business strategies, sales, marketing, research and development efforts;

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potential liabilities in businesses and facilities acquired;

difficulties in maintaining corporate cultures, controls, procedures and policies;

difficulties evaluating risks associated with entering markets in which we lack prior experience; and

potential loss of key employees.

Our revenue and operating results may fluctuate significantly as a result of factors outside of our control, which could cause the value of our business to decline.

Unless and until we establish a predictable sales record for our products, we expect our revenue and operating results to vary significantly from quarter to quarter. As a result, quarterly comparisons of our financial results are not necessarily meaningful and you should not rely on them as an indication, in any manner, of our future performance. In addition, due to our stage of development, we cannot predict our future revenue or results of operations accurately. As a consequence, our operating results may fall below the expectations of investors, which could cause the valuation of our company to decline.

We expect to make significant investments in all areas of our business, particularly in research and product development and in expanding in-house or outsourced manufacturing capability. Because the investments associated with these activities are relatively fixed in the short-term, we may be unable to adjust our spending quickly enough to offset any unexpected shortfall in our revenue growth. In addition, because we are in the early stages of commercializing the ConsERV application and anticipate that it will take at least an additional 6 to 48 months from financing to develop our other products for commercial sales, we expect our order flow to be uneven from period to period.

Risks Related to Our Industry

If our products fail to meet certain technical standards, we could be subject to claims, fines or other penalties and we may be curtailed from conducting our business operations.

Our nano-structured membrane products are designed for specific applications with specific technical objectives and standards. If these membranes, or the hardware device(s) used to make the membranes work, fail to meet those technical objectives and/or standards, we could be liable for potential personal injury, loss of life and damages (including consequential damages). Depending on the nature of the claim, our current insurance policies may not adequately reimburse us for costs incurred by reason of said claims, including, but not limited to, environmental damage claims, and in certain instances, we may not be reimbursed at all. Our business is subject to numerous federal, state and local laws, regulations and policies that govern environmental protection. These laws and regulations have changed frequently in the past and may continue to do so in the future. Our operations may not comply with such changes and we may be required to make significant unanticipated capital and operating expenditures to comply with such changes. If we fail to comply with any such applicable environmental laws and regulations, governmental authorities may seek to impose fines or other penalties on us or to revoke or deny the issuance or renewal of certain permits issued to us. Accordingly, we might be subject to damage claims or penalties, and we may be curtailed from conducting our business operations.

We could be liable for environmental damages resulting from our research, development and manufacturing operations.

Our business may expose us to the potential risk of harmful substances escaping into the environment, resulting in potential personal injury or loss of life, damage to or destruction of property, and natural resource damage. Depending on the nature of the claim, our current insurance policies may not adequately reimburse us for costs incurred in settling environmental damage claims, and in certain instances, we may not be reimbursed at all. Our business may be or become subject to numerous federal, state and local laws, regulations and policies that govern environmental protection. These laws and regulations have changed frequently in the past and may continue to do so in the future. Our operations may not comply with such changes and we may be required to make significant unanticipated capital and operating expenditures to comply with such changes. If we fail to comply with applicable environmental laws and regulations, governmental authorities may seek to impose fines or other penalties on us or to revoke or deny the issuance or renewal of certain permits issued to us. Accordingly, we might be subject to damage claims or penalties, and we may be curtailed from conducting our business operations.

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Future government regulation may impair our ability to market and sell our products.

Our current and planned products are potentially subject to federal, state, local and foreign laws and regulations governing, among other things, emissions to air as well as laws relating to occupational health and safety. As these products are introduced commercially, it is possible that governmental authorities will adopt new regulations that will limit or curtail our ability to market and sell such products. We may also incur substantial costs or liabilities in complying with such new governmental regulations. Our potential customers and distributors, some of which operate in highly regulated industries, may also be required to comply with new laws and regulations applicable to products such as ours, which could adversely affect their interest in our products.

Alternatives to our technology could render our systems obsolete prior to commercialization.

Our nano-structured materials and their identified uses are one of a number of products being developed today as potential answers to perceived market needs such as additional water sources, energy and emissions savings with regard to HVAC operation, alternative energy storage and clean power sources. Improvements are also being made to the existing products. Technological advances in all fields and improvements in key targeted application areas with existing or different new technology may render our nano-structured material approach obsolete before or during commercialization.

Risks Related to Investment in Our Securities

Our common stock has traded only sporadically and is expected to experience significant price and volume volatility in the future which substantially increases the risk of loss to persons owning our common stock.

We plan to apply for listing of our common stock on the American Stock Exchange, which we expect to occur on or immediately following the date of the prospectus related to of the Form S-1 offering. At present, we do not meet the standards of the American Stock Exchange. No assurance can be given that our application will be approved. If the application is not approved, we will not complete the offering and the shares of our common stock will continue to be traded on the OTC Bulletin Board.

Our common stock has been quoted on the Pink OTC Markets, Inc. s Pink Sheets since November 15, 2005 and the Over the Counter Bulletin Board since November 24, 2008. The market price of our common stock has been and will likely continue to be subject to fluctuations. In addition, the stock market in general and the market for technology companies in particular, have from time to time experienced significant price and volume fluctuations that have been often unrelated or disproportionate to the operating performance of such companies. These broad market and industry factors may cause our common stock to materially decline, regardless of our operating performance. Because of the limited trading market for our common stock, and the possible price volatility, you may not be able to sell your shares of common stock when you desire to do so. The inability to sell your shares in a rapidly declining market may substantially increase your risk of loss because of such illiquidity and because the price for our common stock may suffer greater declines because of its price volatility. In the past, following periods of volatility in the stock market and the market price of a particular company s securities, securities class action litigation has often been instituted against that company. Litigation of this type could result in substantial legal fees and other costs, potential liabilities and a diversion of management s attention and resources.

We have not and do not intend to pay dividends on our common stock.

The payment of dividends upon our capital stock is solely within the discretion of our board of directors and dependent upon our financial condition, results of operations, capital requirements, restrictions contained in our future financing instruments and any other factors our board of directors may deem relevant. We have never declared or paid a dividend on our common stock and, because we have very limited resources, we do not anticipate declaring or paying any dividends on our common stock in the foreseeable future. Rather, we intend to retain any future earnings for the continued operation and expansion of our business. It is unlikely, therefore, that the holders of our common stock will have an opportunity to profit from anything other than potential appreciation in the value of our common shares held by them.

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Our executive officers and directors have significant shareholdings, which may lead to conflicts with other shareholders over corporate governance matters.

As of March 23, 2011, our directors and officers, as a group, beneficially own approximately 32.9 % of our outstanding common stock, including shares of common stock issuable upon exercise of warrants and options they hold. Acting together, these shareholders would be able to significantly influence all matters that our shareholders vote upon, including the election of directors, mergers or other business combinations.

There is no guarantee that our shares will be listed on the American Stock Exchange.

On or immediately following the effectuation of the Company s Form S-1 registration statement filed on February 14, 2011, we will apply to have our common stock listed on American Stock Exchange. We believe we will satisfy the listings requirements of the AMEX. Such listing, however, is not guaranteed. If the application is not approved, we will not complete the offering and the shares of our common stock will continue to be traded on the OTC Bulletin Board. Even if such listing is approved, we may not be able to meet the requirements for continued listing and there may not be any broker interested in making a market for our stock. Therefore, it may be difficult for investors to sell shares of our common stock if desired or needed. The underwriter of our potential offering, MDB Capital Group, LLC, is not obligated to make a market in our securities and even if it chooses to do so it can discontinue at anytime without notice. It is possible that an active and liquid trading market in our securities may never develop or, if one does develop, that the market will continue.

Our securities are characterized as microcap stock, and are subject to a number of unique risks.

The term microcap stock applies to companies with low or micro capitalizations, meaning the total value of the company s stock. Our securities are characterized as microcap stock, and are subject to a number of unique risks. Many microcap companies tend to be new and have no proven track record. Some of these companies have limited or no assets or operations. Others have products and services that are still in development or have yet to be tested in the market. Another risk that pertains to microcap stocks involves the low volumes of trades. Because microcap stocks trade in low volumes, any size of trade can have a large percentage impact on the price of the stock. While all investments involve risk, microcap stocks can be among the most risky.

Unless an active trading market develops for our securities, shareholders may have difficulty or be unable to sell their shares of common stock.

We cannot predict the extent to which an active public market for our common stock will develop or be sustained. It is a condition to the closing of the Form S-1 offering that we be listed on the American Stock Exchange but we cannot be assured that we will be able to meet the requirements for continued listing going forward.

Our common stock is currently quoted on the OTC:BB under the symbol DLYT. However, currently there is not an active trading market for our common stock, meaning that the number of persons interested in purchasing shares of our common stock at or near ask prices at any given time may be relatively small or non-existent, and there can be no assurance that an active trading market may ever develop or, if developed, that it will be maintained. There are a number of factors that contribute to this situation, including, without limitation, the fact that we are a small development-stage company that is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven development stage company such as ours or purchase or recommend the purchase of shares of our common stock until such time we become more seasoned and viable.

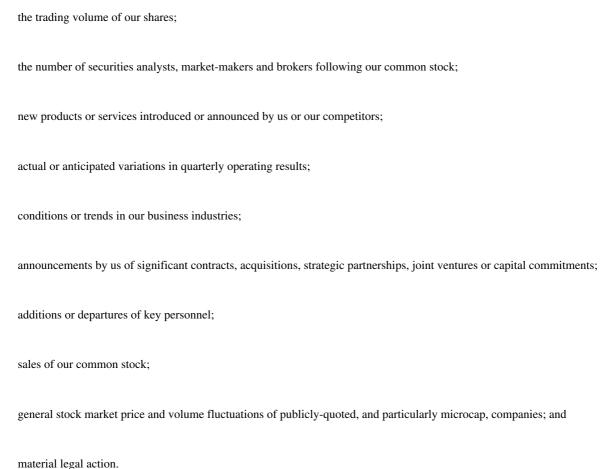
As a consequence, our stock may be characterized by a lack of liquidity, sporadic trading, larger spreads between bid and ask quotations, and other conditions that may affect shareholders ability to re-sell our securities. Moreover, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. Unless an active trading market for our common stock is developed and maintained, shareholders may be unable to sell their common stock and any attempted sale of such shares may have the effect of lowering the market price of our common stock and a shareholder s investment could be a partial or complete loss.

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Since our common stock is thinly traded, it is more susceptible to extreme rises or declines in price and shareholders may not be able to sell their shares at or above the price paid.

Since our common stock is thinly traded, its trading price is likely to be highly volatile and could be subject to extreme fluctuations in response to various factors, many of which are beyond our control, including:



Shareholders, including but not limited to those who hold shares as a result of the exercise or conversion of our convertible securities and warrants, may have difficulty reselling shares of our common stock, either at or above the price paid, or even at fair market value. The stock markets often experience significant price and volume changes that are not related to the operating performance of individual companies, and because our common stock is thinly traded it is particularly susceptible to such changes. These broad market changes may cause the market price of our common stock to decline regardless of how well we perform as a company. In addition, and as noted below, our shares are subject to the penny stock regulations. Price fluctuations in such shares are particularly volatile and subject to manipulation by market-makers, short-sellers and option traders.

Our common stock is subject to the penny stock regulations, which are likely to make it more difficult to sell.

Although we anticipate the offering price of our common stock in our Form S-1 offering will be greater than that of a penny stock it is possible that the market price could fall, and thus we would again be subject to the penny stock rules. The SEC has adopted rules that regulate broker-dealer practices in connection with transactions in penny stocks. These rules generally have the result of reducing trading in such stocks, restricting the pool of potential investors for such stocks, and making it more difficult for investors to sell their shares once acquired. Prior to a transaction in a penny stock, a broker-dealer is required to:

deliver to a prospective investor a standardized risk disclosure document that provides information about penny stocks and the nature and level of risks in the penny stock market;

provide the prospective investor with current bid and ask quotations for the penny stock;

explain to the prospective investor the compensation of the broker-dealer and its salesperson in the transaction;

provide investors monthly account statements showing the market value of each penny stock held in their account; and

make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser s written agreement to the transaction.

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These requirements may have the effect of reducing the level of trading activity in the secondary market for a stock that is subject to the penny stock rules. Since our common stock is subject to the penny stock rules, investors in our common stock may find it more difficult to sell their shares

Shares eligible for future sale may adversely affect the market.

From time to time, certain of our stockholders may be eligible to sell all or some of their shares of common stock by means of ordinary brokerage transactions in the open market pursuant to Rule 144, promulgated under the Securities Act, subject to certain limitations. In general, pursuant to Rule 144, non-affiliate stockholders may sell freely after six months subject only to the current public information requirement (which disappears after one year). Affiliates may sell after six months subject to the Rule 144 volume, manner of sale (for equity securities), current public information and notice requirements. Of the 33,323,715 shares of our common stock outstanding as of March 23, 2011, approximately 20,602,096 shares are held by non- affiliates and are, or will be, freely tradable without restriction, and the remaining shares are held by our affiliates, as of such date. Any substantial sale of our common stock pursuant to Rule 144 or pursuant to any resale prospectus (including sales by investors of securities acquired in connection with this offering) may have a material adverse effect on the market price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None

ITEM 2. PROPERTIES

We currently lease a 7,200 square feet of combined office and production space located at 11552 Prosperous Drive, Odessa, FL 33556. We lease the site from Ethos Business Ventures, LLC, a limited liability company in which our Chief Executive Officer, Timothy N. Tangredi, has a controlling financial interest.

The lease for our corporate headquarters began on March 18, 2005. The lease term will terminate upon 30 days written notice from either party. The current monthly rent is \$3,800. We also pay all taxes and utilities as well as most repairs relating to our office. Most of the Company functions are performed at this site including corporate, marketing, administration, on-going product and nano-structured polymer development, and product assembly and shipping. Key polymer synthesis and casting is out-sourced and not done at this facility. We do not anticipate investing in real estate or interests in real estate, real estate mortgages, or securities of or interests in persons primarily engaged in real estate activities. We currently have no formal investment policy and do not intend to undertake investments in real estate as a part of our normal operations.

ITEM 3. LEGAL PROCEEDINGS

We are not currently a party to any pending legal proceedings. In the ordinary course of business, we may become a party to various legal proceedings generally involving contractual matters, infringement actions, product liability claims and other matters.

From time to time, claims are made against us in the ordinary course of our business, which could result in litigation. Claims and associated litigation are subject to inherent uncertainties and unfavorable outcomes could occur, such as monetary damages, fines, penalties or injunctions prohibiting us from selling one or more products or engaging in other activities. The occurrence of an unfavorable outcome in any specific period could have a material adverse effect on our results of operations for that period or future periods.

ITEM 4. REMOVED AND RESERVED

PART II

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

Our common stock was traded from November 15, 2005 to November 23, 2008 on the Pink Sheets and from November 24, 2008 to present on the Over the Counter Bulletin Board under the trading symbol DLYT. The following table sets forth the range of reported high and low sales prices of our common stock during the periods indicated. Such quotations reflect prices between dealers in securities and do not include any retail mark-up, mark-down or commission, and may not necessarily represent actual transactions. Trading in our common stock should not be deemed to constitute an established trading market.

	High	Low
For the year ending December 31, 2010:		
First Quarter	\$ 0.44	\$ 0.20
Second Quarter	\$ 0.66	\$ 0.23
Third Quarter	\$ 0.40	\$ 0.27
Fourth Quarter	\$ 0.37	\$ 0.24
For the year ending December 31, 2009:		
First Quarter	\$ 0.20	\$ 0.08
Second Quarter	\$ 0.19	\$ 0.13
Third Quarter	\$ 0.26	\$ 0.10
Fourth Quarter	\$ 0.95	\$ 0.22

Transfer Agent

Our transfer agent is Clear Trust Transfer located at 17961 Hunting Bow Circle, Suite 102, Lutz, Florida 33558, telephone (813) 235-4490.

Holders

As of December 31, 2010 there were approximately 189 shareholders of record of our common stock.

Dividend Policy

We have not declared or paid any dividends and do not intend to pay any dividends in the foreseeable future to the holders of our common stock. We intend to retain future earnings, if any, for use in the operation and expansion of our business. Any future decision to pay dividends on common stock will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and other factors our board of directors may deem relevant.

Equity Compensation Plan Information

The following table sets forth information regarding our 2000 Incentive Compensation Plan (the 2000 Plan) and the 2009 Long-Term Incentive Plan (the 2009 Plan) under which our securities are authorized for issuance as of December 31, 2010:

Plan Category	(a)	(b)	(c)
	Number of Securities to	Weighted Average	Number of
	be Issued Upon	Exercise Price	Securities
	Exercise	of	Remaining
	of	Outstanding	Available for
	Outstanding Options,	Options,	Future Issuance
	Warrants and	Warrants and Rights	Under Equity
	Rights		Compensation

Plans Excl	Jung
Securities Ro	flected
in Colum	ı (a)
Equity compensation plans approved	
by security holders: 14,947,757 \$ 0.25 12,04	0,000

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In June 2000 and November 2009, our board of directors adopted, and our shareholders approved, the 2000 Plan and 2009 Plan; respectively (together the Plans). The Plans provide for the grant of stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units and bonus stock and other awards to eligible persons, as defined in said plans, including, but not limited to, officers, directors and employees of the Company. Certain awards under the Plans may be subject to performance conditions.

Number of Shares of Common Stock Available Under the Plans. As of December 31, 2007, our board of directors approved and made available 6,093,882 shares of common stock to be issued pursuant to the 2000 Plan. Subsequently, our board of directors approved and made available an additional 5,000,000 shares of our common stock for issuance under the 2000 Plan. The 2000 Plan permits grants of options to purchase common shares authorized and approved by the Company s Board of Directors and shareholders for issuance prior to the enactment of the 2000 Plan. On November 5, 2009, our board of directors approved and made available a total of 15,000,000 shares of common stock to be issued pursuant to the 2009 Plan.

Administration of the Plans. The Plans are administered by a committee of two or more directors designated by the board of directors to administer the Plans (the Committee) or, in the absence of such Committee, by the board of directors. Currently, the Plans are administered by our board of directors. The board of directors has the authority to select the participants to whom awards under Plans will be granted, grant awards, determine the type, number and other terms and conditions of, and all other matters relating to, awards granted under the Plans and to prescribe the rules and regulations for the administration of the Plans. No option or stock appreciation rights granted under the Plans shall be exercisable, however, more than ten years after the date of the grant.

Exercise Price. The Plans require the Committee to grant qualified options with an exercise price per share not less than the fair market price of a share of common stock on the date of grant of the option.

<u>Transferability.</u> Awards granted under the Plans are generally not transferable by the optionee otherwise than by will or the laws of descent and distribution and generally exercisable during the lifetime of the optionee only by the optionee.

Change in Control. All awards granted under the 2000 Plan which were not previously exercisable and vested shall become fully exercisable and vested upon a change of control of the Company, which includes the consummation of a merger or consolidation of the Company with or into any other entity, sale of all or substantially all of our assets, replacement of a majority of our board of directors, acquisition by any person of securities representing 20% or more of the voting power of our then outstanding securities (other than securities issued by us) or any other event which the board of directors determines would materially alter our structure or ownership.

Options Granted to Non-Employee Directors. Non-employee directors of the Company are usually granted options each year, which generally become exercisable upon the date of grant, and generally expire on the earlier of ten years from the date of grant or up to three years after the date that the optionee ceases to serve as a director.

Stand-Alone Grants

Our board of directors may grant common share purchase options or warrants to selected directors, officers, employees, consultants and advisors in payment of goods or services provided by such persons on a stand-alone basis outside of any of our Plans. The terms of these grants may be individually negotiated.

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RECENT SALES OF UNREGISTERED SECURITIES

We issued securities and reported these issuances, which were not registered under the Securities Act of 1933, as amended (the Securities Act) in our Forms 10-Q for the quarters ended March 31, 2010, June 30, 2010, and September 30, 2010. For the quarter ended December 31, 2010, we issued the following securities without registration under the Securities Act , pursuant to exemption from registration under Section 4(2) and Regulation D of the Securities Act:

On November 4, 2010 an investor elected to convert the balance of its 9% secured convertible note in the amount of \$100,000 into 625,384 shares of Company s Common Stock. The Common Stock was issued pursuant to exemption from registration under Section 3(a)9 of the Securities Act. The investor also received an additional five-year warrant to purchase up to 62,538 shares of Common Stock, at an exercise price of \$0.75 per share in consideration for converting its 9% secured convertible note. The warrant is immediately exercisable and subject to adjustment for standard anti-dilution events.

On November 4, 2010, the Company issued 100,000 shares of Common Stock valued at \$36,000 for services provided. The issuance of these securities was exempt from registration under Section 4(2) and Regulation D of the Securities Act.

On November 4, 2010, the Company issued 375,000 shares of Common Stock valued at \$150,000 for services to be provided. The issuance of these securities was exempt from registration under Section 4(2) and Regulation D of the Securities Act.

On December 27, 2010, one investor elected to apply all of the proceeds due and payable under the \$250,000 Note, including all accrued interest, to the purchase of our common stock. Pursuant to this transaction, the investors subscribed for and received 1,052,950 shares of common stock at a purchase price of \$0.26 per share resulting in an aggregate purchase price of \$273,767 (the principal amount and related accrued interest under the note). The issuance of these securities was exempt from registration under Section 4(2) and Regulation D of the Securities Act.

On December 30, 2010, one investor elected to apply all of the proceeds due and payable under the \$300,000 Note, including all accrued interest, to purchase the Company s Common Stock. Pursuant to this transaction, the investor subscribed for and purchased 1,268,472 shares of Common Stock at a purchase price of \$0.26 per share resulting in an aggregate purchase price of \$329,402. The issuance of these securities was exempt from registration under Section 4(2) and Regulation D of the Securities Act.

Recent Repurchases of Common Stock

There were no repurchases of our common stock during 2010.

ITEM 6. SELECTED FINANCIAL DATA

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act 1934, as amended, and are not required to provide the information under this item.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes appearing elsewhere in this Report. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. The actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including, but not limited to, those which are not within our control.

OVERVIEW

We have developed and patented a nano-structure polymer technology, which is being commercialized in products based on the functionality of these materials. We believe the applications of our technology have promise in a number of diverse market segments and products.

The initial product focus of the Company is ConsERV, an energy recovery ventilator. Our primary focus is to expand our marketing and sales of our ConsERV products. We also have new product applications in various developmental stages. We believe that three of these additional

product applications, including an advanced air conditioning system which is projected to use less energy and emit fewer emissions than most current HVAC equipment, a water clean-up process that may be useful in the creation of potable water from sea, brackish or waste water and an electrical energy storage device, may be brought to market in the foreseeable future if we receive adequate capital funding.

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We expect ConsERV to continue to be our focused commercial product through 2011 with a growing emphasis on moving the development of the NanoClear and NanoAir technologies towards commercialization.

REVENUES

We generate our revenues primarily from the sale of our ConsERV products in largely commercial HVAC markets with a small amount of revenue coming from residential sales to consumers and HVAC distributors. Sales channels for our ConsERV products include OEMs, distributors, retailers, and consumers. We also occasionally license our technology to strategic partners and sell various prototypes of other product applications that use our polymer technology.

Our near term revenue growth is dependent on continued sales from (i) more seasoned independent sales representatives, (ii) a greater number of independent sales representatives (iii) fulfilling the ventilation needs of the growing energy consultant marketplace which work to lower their client s energy costs and emissions, and (iv) from the Company s own customer direct sales activities, all of which focus on the sale of product primarily into the commercial user marketplace with a growing emphasis on low rise structures (small commercial buildings, multi-purpose structures, and residences). In addition, the Company and its independent sales representative sales force will work to secure orders for ConsERV core only sales (i) from HVAC equipment manufacturers, (ii) from distribution firms servicing the equipment needs of the HVAC installer community, and (iii) creating license/supply relationships with HVAC or ERV OEMs preferably having a dominant presence in existing direct related sales channels.

COST OF SALES

Our cost of sales consists primarily of materials (including freight), direct labor, and outsourced manufacturing expenses incurred to produce our ConsERV products.

We are dependent on third parties to manufacture the key components needed for our nano-structured based materials and value added products made with these materials. Accordingly, a supplier s failure to supply components in a timely manner, or to supply components that meet our quality, quantity and cost requirements or our technical specifications, or the inability to obtain alternative sources of these components on a timely basis or on terms acceptable to us, would create delays in production of our products or increase our unit costs of production. Certain of the components contain proprietary products of our suppliers, or the processes used by our suppliers to manufacture these components are proprietary. If we are required to replace any of our suppliers, while we should be able to obtain comparable components from alternative suppliers at comparable costs, it would create a delay in production.

Our cost of sales may fluctuate due to a number of factors, including, but not limited to:

A change in key suppliers or the prices that they charge for the fundamental components of our ConsERV products;

An increase in the labor resources needed to expand the production of our ConsERV products;

Commercialization of new product applications of our polymer technology;

Continued technological improvements in key materials or configuration(s) to reduce our per unit cost structure; and

Additional outsourcing of our manufacturing and assembly processes with strategic partners to reduce our per unit cost structure. **SELLING, GENERAL AND ADMINISTRATIVE EXPENSES**

Our selling, general and administrative expenses consist primarily of payroll and related benefits, share-based compensation, professional fees, marketing and channel support costs, and other infrastructure costs such as insurance, information technology and occupancy expenses.

Our selling, general and administrative expenses may fluctuate due to a variety of factors, including, but not limited to:

Additional expenses as a result of becoming a reporting company including, but not limited to, director and officer insurance, director fees, SEC reporting and compliance expenses, transfer agent fees, additional staffing, professional fees and similar expenses;

Additional infrastructure needed to support the expanded commercialization of our ConsERV products and/or new product applications of our polymer technology for, among other things, administrative personnel, physical space, marketing and channel support and information technology; and

The fair value of new share-based awards, which is based on various assumptions including, among other things, the volatility of our stock price

RESULTS OF OPERATIONS

The following table sets forth, for the periods indicated, certain data derived from our Statements of Operations:

	Year Ended December 31,				
	2010	2009			
Revenues	\$ 3,342,468	\$ 1,531,215			
Percentage of revenues	100.0%	100.0%			
Cost of goods sold	\$ 2,290,041	\$ 1,071,098			
Percentage of revenues	68.5.%	70.0%			
Research and development expenses, net grant revenue	\$ 238,182	\$ 6,600			
Percentage of revenues	7.1%	.4%			
Selling, general and administrative expenses	\$ 2,693,092	\$ 3,217,992			
Percentage of revenues	80.6%	210.2%			
Interest expense	\$ 209,550	\$ 621,574			
Percentage of revenues	6.3%	40.6%			
Change in fair value of warrant liability	\$ (618,801)	\$ 3,731,694			
Percentage of revenues	18.5%	243.7%			
Net loss	\$ (1,433,593)	\$ (7,117,076)			
Percentage of revenues	(42.9)%	(464.8)%			

DECEMBER 31, 2010 COMPARED TO DECEMBER 31, 2009

REVENUES: Total revenues for the year ended December 31, 2010 and 2009 were \$3,342,468 and \$1,531,215 respectively, an increase of \$1,811,253, or 118.3%. The increase in revenues for 2010 is primarily attributable to the Company increasing the sales price by 6% on the ConsERV products, introducing new products (C-series and semi-custom units) to the ConsERV line, generating additional sales in new price categories and an increase in the number and size of its sales transactions in 2010 compared to 2009. The Company also attributes the sales increase to a realignment of and an increase in the number of its independent sales representatives. During the year ended December 31, 2010 and 2009, seven and five customers accounted for approximately 61% and 66% of revenues, respectively.

COST OF GOODS SOLD: Cost of goods sold was \$2,290,041 and \$1,071,098 or 68.5% and 70.0% of revenues for the years ended December 31, 2010 and 2009, respectively. The increase in 2010 of \$1,218,943 is primarily due an increase in sales. Gross profit margin increased from 30% in 2009 to 31.4% in 2010. The increase in the gross profit margin was due to a decrease in the cost of materials due to improved production processes, volume pricing and new suppliers. The Company also was able to reduce labor costs by approximately 10% through the implementation of lean manufacturing and QRM processes. The effect of these cost savings that were achieved through these

measures was partially offset by an increase in contract labor of approximately \$80,000 and an overall increase in freight costs by approximately \$100,000.

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SELLING, GENERAL AND ADMINISTRATIVE EXPENSES: Selling, general and administrative expenses were \$2,693,092 for the year ended December 31, 2010, compared to \$3,217,992 for the year ended December 31, 2009, a decrease of \$524,900 or 16.3%. This decrease is primarily due to a decrease in stock based compensation of approximately \$785,000 which was partially offset by an increase in professional fees of approximately \$174,000 which was due to hiring an investor relations firm in 2010 and additional consultants. The Company also had an increase in payroll expenses of approximately \$106,700 for the addition of two new employees in management.

INTEREST EXPENSE: Interest expense was \$209,550 for the year ended December 31, 2010 compared to \$621,574 for the same period of 2009, a decrease of \$412,024 or 66.3%. During the year ended December 31, 2009, interest expense was primarily related to convertible notes issued from December 2007 to January 2008, and comprised of approximately \$172,000 of stated interest expense on the notes, approximately \$413,000 in expense relating to warrants issued to induce conversion of principal and \$30,100 in expense related to the amortization of the discount and embedded beneficial conversion feature. The decrease in interest expense is due to the fact that the beneficial conversion feature and discount on the notes payable became fully amortized in January 2009 and the convertible debt has been reduced by \$275,000 in 2010.

CHANGE IN FAIR VALUE OF WARRANT LIABILITY: The change in the fair value of warrant liability increased by \$4,350,495 for the year ended December 31, 2010 to income of (\$618,801) from expense of \$3,731,694 in the prior year due to the change in the fair value of the underlying warrant liability based on the Black-Scholes option pricing model. See Note 12 in the Financial Statements for further explanation.

NET LOSS: Net loss for the year ended December 31, 2010 decreased by \$5,683,483 to \$1,433,593 from \$7,117,076 for the year ended December 31, 2009. The decrease in net loss is primarily due to the increases in sales and the change in fair value of the warrant liability net of decreases in interest expense and selling, general and administrative expenses.

LIQUIDITY AND CAPITAL RESOURCES

The Company finances its operations primarily through sales of its ConsERV products, sales of its common stock, the issuance of convertible promissory notes, unsecured promissory notes and license agreements.

Our historical revenues have not been sufficient to sustain our operations. We have not achieved profitability in any year since inception and we expect to continue to incur net losses and negative cash flow from operations until we can produce sufficient revenues to cover our costs, which are not expected for several years. Furthermore, even if we achieve our goal of selling a greater number of ConsERV units, we anticipate that we will continue to incur losses until we can cost-effectively produce and sell our products to a wider market. Our profitability will require the successful commercialization of our ConsERV products and any future products we develop. No assurances can be given when this will occur.

We have filed a registration statement on Form S-1 with the SEC for a contemplated public offering of common stock for gross proceeds of up to fifteen million dollars. We have engaged MDB Capital Group LLC to be the underwriter of this public offering. However, we have not entered into an underwriting agreement with MDB Capital Group LLC, and we may not be able to consummate a public offering. As disclosed in our registration statement, we intend to use the proceeds of the public offering for working capital, general corporate purposes and repayment of certain outstanding indebtedness.

During the year ended December 31, 2009 eighteen holders converted their Convertible Notes, having an aggregate outstanding principal balance of \$2,350,000 plus accrued interest of \$361,600, into 13,553,822 shares of common stock. Some of the holders converted during periods in which we were offering an additional warrant as an inducement to convert. In accordance with said offers we issued additional warrants to purchase 1,665,000 shares of common stock, exercisable immediately at \$0.25 per share and valued at \$126,367, and 575,000 warrants, exercisable immediately at \$0.75 per share valued at \$286,641 which was recorded as interest expense during the twelve months ended December 31, 2009.

During 2009, four investors holding Convertible Notes with an aggregate outstanding principal balance of approximately \$450,000 at December 31, 2008 notified the Company that they were asserting their rights to receive payment of the principal and interest pursuant to the terms of the Convertible Notes. In June of 2009, three of these investors, holding an aggregate principal note balance of \$250,000, entered into a confession of judgment with the

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Company. Under that agreement, the three investors had the right, should the Company fail to pay all principal and interest due pursuant to their Convertible Notes on or before September 11, 2009, to file the confession of judgment with the court and seek to secure a judgment against the Company in the amount of all principal and interest due under their Convertible Notes together with the reasonable cost and expense of collection. All accrued interest and principal related to the three Convertible Notes, \$289,600 in the aggregate, was paid in full by the Company on or before September 11, 2009. In July 2009, the fourth investor, holding a Convertible Note in the principal amount of \$200,000, agreed to extend said note to September 2009. In November 2009, this investor and the Company modified the Convertible note to extend the maturity date of said note to July 2010, pay the principal amount due in eight monthly installments commencing December of 2009, end the accrual of interest as of November 20, 2009 and convert the \$34,861 in interest due under the Convertible Note as of November 20, 2009 into 170,137 shares of Company s common stock. During the year ended December 31, 2010, \$75,000 of the outstanding balance was repaid and \$75,000 was converted into 325,000 shares of common stock.

As of December 31, 2010, \$50,000 of principal on the Convertible Notes was outstanding, in default and due and payable in full. On March 23, 2011 this note was paid in full by Company. As of the date of this filing all Convertible Notes issued under the Financing have been paid in full or converted.

In July 2009, we secured a loan of \$300,000 from an investor. Pursuant to the terms of the note, we are to pay the note holder simple interest at the rate of seven percent per annum commencing on July 17, 2009 with all interest and principal due there under payable in cash on or before January 16, 2011. On December 30, 2010, the investor elected to apply all of the proceeds due and payable under the Note, including all accrued interest, to purchase the Company s Common Stock. Pursuant to this transaction, the investor subscribed for and purchased 1,268,472 shares of Common Stock at a purchase price of \$0.26 per share resulting in an aggregate purchase price of \$329,803.

In December 2009, we secured a loan in the principal amount of \$1,000,000 from an investor. Pursuant to the terms of the note, we are to pay the holder simple interest at the rate of ten percent per annum commencing on the date of issuance with all interest and principal due and payable in cash on or before June 17, 2010 the note s maturity date was extended to April 30, 2011. On March 22, 2011, the Company entered into a Securities Amendment and Exchange Agreement and an Amended and Restated Convertible Promissory Note (2011 Convertible Note , collectively Exchange Agreements) with the this investor. Pursuant to the terms and subject to the conditions set forth in the Exchange Agreements, the Company and the Investor amended and restated the \$1,000,000 unsecured promissory note issued by the Company to Investor on or about December 17, 2009 (Original Note) to, among other things, extend the term to March 22, 2012. Interest in the amount of 10% per annum, commencing on December 17, 2009 and calculated on a 365 day year, and the principal amount of \$1,000,000 will be paid on March 22, 2012. Subject to the terms and conditions of the 2011 Convertible Note, including limitations on conversion, the outstanding principal and interest under the 2011 Convertible Note will automatically convert into shares of the Company s common stock at the then-effective conversion price upon the closing of a qualified firm commitment underwritten public offering or may be voluntarily converted by the investor at anytime during the term. The initial conversion price is \$0.26 per share. Any principal or interest which is not converted will be repaid by the Company at the earlier of a qualified offering, (as defined in the 2011 Convertible Note which is filed as an exhibit to the Form 8K filed with the Securities and Exchange Commission on March 28, 2011 and is incorporated by reference to this annual report on Form 10K), or March 22, 2012. Pursuant to and during the term of the 2011 Convertible Note, the Company will not issue or allow to exist any obligation for borrowed money, except for subordinate indebtedness in payment and priority, trade payables incurred in the ordinary course of business, purchase money secured indebtedness for equipment or inventory, unsecured and subordinate, or unsecured and subordinate working capital guarantees provided by, the Export Import Bank of the United States (the EXIM Bank), and indebtedness evidenced by the promissory note dated February 19, 2010 issued to RBC Capital Markets- Custodian of Leonard Samuels IRA (as amended) in the principal amount of \$620,000.

On March 22, 2011, in connection with the above Exchange Agreements, the Company entered into Amendment to 2007 Warrant and Amendment to 2009 Warrant to extend the terms of the Stock Purchase Warrant, dated on or about December 31, 2007, and Stock Purchase Warrant, dated on or about March 12, 2009, respectively, to March 22, 2016 and to provide for cashless exercise unless such warrant shares are registered for resale under a registration statement. In addition, on March 22, 2011, the Company issued a Stock Purchase Warrant to the Investor to purchase 1,000,000 shares of the Company s common stock at \$0.45 per share, exercisable commencing on the earliest of the consummation of the qualified offering (as defined in the Exchange Agreements), the date of conversion of the 2011 Convertible Note in full, or the date of conversion of the 2011 Convertible Note by the Investor in the greatest number of shares of the Company s common stock not to exceed 9.99% beneficial ownership of Company outstanding common stock and terminating on March 22, 2016.

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Also, on March 22, 2011, the Company entered into a Note and Warrant Purchase Agreement, Secured Convertible Promissory Note and Patent Security Agreement (Financing Agreements) with the Investor. Pursuant to the terms and subject to the conditions set forth in the Financing Agreements, the Investor has provided a bridge loan in the amount of \$1,500,000 (Loan) to the Company, which will be secured in all patents, patent applications and similar protections of the Company and all rents, royalties, license fees and accounts with respect to such intellectual property assets. Pursuant to the Secured Convertible Promissory Note (Secured Note), interest in the amount of 10% per annum, calculated on a 365 day year, and the principal amount of \$1,500,000 will be paid on March 22, 2012, but repayment is accelerated upon a qualified offering (as defined in the note). In the event of such qualified offering, and subject to the terms and conditions of the Secured Note, the outstanding principal and interest under the Secured Note will automatically convert, subject to the limitations on conversion described in the note, into shares of the Company's common stock at the then-effective conversion price upon the closing of such qualified offering. The initial conversion price is \$0.26 per share. Any principal or interest which is not converted will be repaid by the Company at the earlier of a qualified offering or March 22, 2012. No cash fees were paid to any party to the transaction in exchange for lending the money. On March 22, 2011, in connection with the Financing Agreements, the Company issued a Stock Purchase Warrant to the Investor to purchase 3,000,000 shares of the Company's common stock at \$0.45 per share, exercisable until March 22, 2016.

Pursuant to and during the term of the Secured Note, the Company will not issue or permit to exist any obligation for borrowed money, except for trade payables incurred in the ordinary course of business, purchase money secured indebtedness for equipment or inventory, unsecured and subordinate indebtedness to, or unsecured and subordinate working capital guarantees provided by, the EXIM Bank, the promissory note dated February 19, 2010 issued to RBC Capital Markets- Custodian of Leonard Samuels IRA (as amended) in the principal amount of \$620,000, the Amended and Restated Convertible Promissory Note, dated March 22, 2011, issued to the Investor in the principal amount of \$1,000,000 and other unsecured indebtedness for borrowed money in an amount not to exceed \$750,000.

Pursuant to the Patent Security Agreement issued in connection with the Note and Warrant Purchase of March 22, 2011, the Company shall not, without the Investor's prior consent, sell, dispose or otherwise transfer all or any portion of the Collateral, except for license grants in the ordinary course of business. In addition, the Company will take all actions reasonably necessary to prosecute to allowance applications for patents and maintain all patents, and to seek to recover damages for infringement, misappropriation or dilution of the Collateral with limited exceptions.

In connection with such qualified offering, and subject to the terms and conditions of the Convertible Note, the Company will use reasonable efforts to include the Investor s securities in such offering. Pursuant to the terms and conditions of the Exchange Agreements, the Investor will not sell, offer to sell or otherwise transfer or dispose of (other than to affiliates) any securities of the Company held by it for a period of 180 days from the date of the final prospectus relating to such qualified offering, except for certain limited sales as more fully described in the Exchange Agreements.

The Company secured loans from two investors in the principal amounts of \$250,000 and \$620,000. The loan amounts were received by the Company on December 31, 2009 and February 18, 2010, respectively. Pursuant to the terms of the notes, the Company is to pay the holders simple interest at the rate of ten percent per annum commencing on the date of issuance with all interest and principal due and payable in cash on or before June 30, 2010 and August 10, 2010, respectively.

On December 27, 2010, one of the investors elected to apply all of the proceeds due and payable under the \$250,000 Note, including all accrued interest, to the purchase of our common stock. Pursuant to this transaction, the investors subscribed for and received 1,052,950 shares of common stock at a purchase price of \$0.26 per share resulting in an aggregate purchase price of \$273,767 (the principal amount and related accrued interest under the note).

The \$620,000 note s maturity date was extended to April 30, 2011.

At maturity, we may not be able to repay all or any of the outstanding notes when due without severely impacting our ability to continue operations and we may not be able to secure additional financing to repay the notes on acceptable terms, if at all. Should we be unable to repay or renegotiate the notes, as an alternative, management

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could attempt to renegotiate the repayment terms of the notes and seek extension of the maturity dates. There is no guarantee that, if we should need to renegotiate these notes, any negotiated terms we may be able to secure would be favorable to the Company. Unfavorable terms, in either a financing transaction or a debt renegotiation, could adversely impact our business, financial condition and/or results of operations. Should we be unable to repay the loan and unsuccessful in securing additional financing or renegotiating the, \$1.5 million dollar secured convertible note the holder would have the option to foreclose on all of our patents and patent applications which would likely result in the failure of our business.

Any future financing may result in substantial dilution to existing shareholders, and future debt financing, if available, may include restrictive covenants or may require us to grant a lender a security interest in any of our assets not already subject to an existing security interest. To the extent that we attempt to raise additional funds through third party collaborations and/or licensing arrangements, we may be required to relinquish some rights to our technologies or products currently in various stages of development, or grant licenses or other rights on terms that are not favorable to us. Any failure by us to timely procure additional financing or investment adequate to fund our ongoing operations, including planned product development initiatives and commercialization efforts, will have material adverse consequences on our financial condition, results of operations and cash flows.

We will be dependent upon our existing cash of \$304,656 at December 31, 2010, the proceeds of our March 22, 2011 \$1.5 million dollar secured convertible note issuance, product sales and additional debt and equity issuances to finance our operations through the next 12 months. We need to raise additional capital of approximately \$13 million to \$18 million, net of costs, during the next eighteen months, the proceeds of which will be used to pay down existing debt, secure new patents for innovative applications of our core technology, purchase equipment, and fund our working capital requirements through September 2012. We currently have no commitments for any such funds. If we are unable to raise the funds we may delay development plans and reduce expenditures wherever possible.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. For the year ended December 31, 2010, the Company incurred a net loss of \$1,433,593 and has incurred significant losses since inception. As of December 31, 2010, the Company has an accumulated deficit of \$35,637,962, negative working capital of \$2,861,488 and a stockholders deficit of \$6,722,092. The Company used \$1,180,848 and \$818,378 of cash from operations during 2010 and 2009, respectively, which was funded by proceeds from debt and equity financings. There is no assurance that such financing will be available in the future. In view of these matters, there is substantial doubt that the Company will continue as a going concern. The Company is currently pursuing the following sources of short and long-term working capital:

- 1. We are currently holding preliminary discussions with parties who are interested in licensing, purchasing the rights to, or establishing a joint venture to commercialize, certain applications of our technology.
- 2. We are seeking growth capital from certain strategic and/or government (grant) related sources. In addition to said capital, these sources may, pursuant to any agreements that may be developed in conjunction with such funding, assist in the product definition and design, roll-out, and channel penetration of our products. As part of this step we will attempt to take advantage of key programs associated with the recently enacted American Recovery and Reinvestment Act of 2009.

The Company s ability to continue as a going concern is highly dependent on our ability to obtain additional sources of cash flow sufficient to fund our working capital requirements. However, there can be no assurance that the Company will be successful in its efforts to secure such cash flow. Any failure by us to timely procure additional financing or investment adequate to fund our ongoing operations, including planned product development initiatives and commercialization efforts, will have material adverse consequences on our financial condition, results of operations and cash flows.

The financial statements of the Company do not include any adjustments relating to the recoverability and classification of recorded assets, or the amounts and classifications of liabilities that might be necessary should the Company be unable to continue as a going concern.

Statements of Cash Flows

Cash and cash equivalents as of December 31, 2010 was \$304,656 compared to \$1,085,628 as of December 31, 2009. Cash is primarily used to fund our working capital requirements.

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As of December 31, 2010, the Company had an increase in working capital of \$596,118, resulting in a working capital deficit of \$2,861,488 compared to \$2,265,370 of working capital deficit as of December 31, 2009. During the year ended 2010, we used approximately \$1,180,800 of cash to fund our operations, approximately \$100,000 to repay debt, and approximately \$113,300 to purchase property and equipment. These uses of cash are partially offset by approximately \$620,000 of proceeds received during 2010 in connection with the issuance of debt.

Net cash used in operating activities was approximately \$1,180,800 for the year ended December 31, 2010 compared to approximately \$818,000 for the same period in 2009. During the year ended December 31, 2010, we used additional cash to fund operating losses of approximately \$1,879,000 and working capital requirements of approximately \$2,861,500 compared to the same period in 2009.

Net cash used in investing activities was approximately \$120,000 for the year ended December 31, 2010 compared to approximately \$41,000 for the same period in 2009. During the year ended December 31, 2010, we used additional cash to purchase equipment.

Net cash provided by financing activities was approximately \$520,000 for the year ended December 31, 2010 compared to approximately \$1,918,000 for the same period in 2009. During the year ended December 31, 2010, we received net proceeds of \$620,000 from the issuance of debt net of \$100,000 of payments on notes payable.

ECONOMY AND INFLATION

We have not experienced any significant cancellation of orders due to the downturn in the economy and only a small number of customer requested delays in delivery or production of orders in process.

Our management believes that inflation has not had a material effect on our results of operations

CONTRACTUAL OBLIGATIONS

As of December 31, 2010, we have contractual obligations of \$1,828,255 as indicated below:

		Less than		
Contractual Obligations	Total	1 Year	1-3 Years	3-5 Years
Long-term debt	\$ 1,670,674	\$ 1,670,674	\$	\$
Purchase obligations	158,255	158,255		
Total	\$ 1 828 929	\$ 1 828 929	\$	\$

OFF-BALANCE SHEET ARRANGEMENTS

We do not have any off balance sheet arrangements that are reasonably likely to have a current or future effect on our financial condition, revenues, results of operations, liquidity or capital expenditures.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of the accompanying financial statements and related disclosures in conformity with U.S. GAAP requires us to make judgments, assumptions and estimates that affect the amounts reported in the accompanying financial statements and the accompanying notes. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. When making these estimates and assumptions, we consider our historical experience, our knowledge of economic and market factors and various other factors that we believe to be reasonable under the circumstances. Actual results could differ from these estimates. The following critical accounting policies are significantly affected by judgments, assumptions and estimates used in the preparation of the financial statements:

The significant accounting policies followed are:

Revenue Recognition

Generally, the Company recognizes revenue for its products upon shipment to customers, provided no significant obligations remain and collection is probable. This policy applies to all of our customers, including Genertec America (a distribution agreement) and CAST Systems Control Technology Co. (an agreement for the purchase of specific goods).

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Our ConsERV product typically carries a warranty of two years for all parts contained therein with the exception of the energy recovery ventilator core which typically carries a 10 year warranty. The warranty includes replacement of defective parts. Warranty costs have been immaterial; however, the Company has recorded an accrual of approximately \$11,500 for future warranty expenses at December 31, 2010.

Revenue derived from the sale of licenses is deferred and recognized as revenue on a straight-line basis over the life of the license, or until the license arrangement is terminated. The Company recognized revenue of approximately \$82,000 and \$84,000 from license agreements for the years ended December 31, 2010 and 2009, respectively.

Impairment of Long-Lived and Intangible Assets

Long-lived and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the book value of the asset may not be recoverable. The Company periodically evaluates whether events and circumstances have occurred that indicate possible impairment. When impairment indicators exist, the Company uses market quotes, if available or an estimate of the future undiscounted net cash flows of the related asset or asset group over the remaining life in measuring whether or not the asset values are recoverable. There have been no significant impairments of long-lived and intangible assets during the two-year period ended December 31, 2010.

Stock-Based Compensation

The Company recognizes all share-based payments to employees, including grants of employee stock options, as compensation expense in the financial statements based on their fair values. That expense is recognized over the period during which an employee is required to provide services in exchange for the award, known as the requisite service period (usually the vesting period).

The value of each grant is estimated at the grant date using the Black-Scholes option model with the following assumptions for options granted during the years ended December 31, 2010 and 2009:

	Years Ended De	cember 31,
	2010	2009
Dividend rate	0%	0%
Risk free interest rate	1.96% 3.68%	1.65% 3.49%
Expected term	5 6.5 years	5 10 years
Expected volatility	97% 112%	92% 106%

The basis for the above assumptions are as follows: the dividend rate is based upon the Company s history of dividends; the risk-free interest rate for periods within the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant; the expected term was calculated based on the Company s historical pattern of options granted and the period of time they are expected to be outstanding; and expected volatility was calculated by review of a peer company s historical stock prices.

Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Based on historical experience of forfeitures, the Company estimated forfeitures at 0% for the each of the years ended December 31, 2010 and 2009.

Taxes

Income taxes are provided for the tax effects of transactions reported in the financial statements and consist of taxes currently due plus deferred taxes resulting from temporary differences. Such temporary differences result from differences in the carrying value of assets and liabilities for tax and financial reporting purposes. The deferred tax assets and liabilities represent the future tax consequences of those differences, which will either be taxable or deductible when the assets and liabilities are recovered or settled. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

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As of December 31, 2010, the Company had no unrecognized tax benefits or related interest and penalties. We will include future interest and penalties associated with any unrecognized benefits within provision for income taxes on the Statements of Operations, if applicable. We do not anticipate any unrecognized benefits in the next 12 months that would result in a material change to our financial position.

RECENT ACCOUNTING PRONOUNCEMENTS

For a description of recent accounting standards, including the expected dates of adoption and estimated effects, if any, on our financial statements, see Note 3: Significant Accounting Policies: Recent Accounting Standards in Part II, Item 8 of this Form 10-K.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Our financial statements and the related notes begin on Page F-1, which are included in this Annual Report on Form 10-K.

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

None.

ITEM 9A(T). CONTROLS AND PROCEDURES.

Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Management conducted its evaluation based on the framework in *Internal Control Integrated Framework* issued by the Committee on Sponsoring Organizations of the Treadway Commission (COSO). Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that, at December 31, 2010, such disclosure controls and procedures were not effective due to the material weakness identified by the Company s CEO and CFO discussed below.

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Management s Annual Report on Internal Control over Financial Reporting

The Company s management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rue 13a-15(f) under the Exchange Act). Internal control over financial reporting is a process, including policies and procedures, designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. Our management assessed our internal control over financial reporting based on the *Integrated Framework* issued by the COSO. Based on the results of this assessment, our management concluded that our internal control over financial reporting were not effective as of December 31, 2010 based on such criteria for the reasons discussed below.

In the course of management sevaluation, each of our Company's CEO and CFO considered the restatement of the financial statements presented in Part II, Items 6, 7 and 8, respectively, included in this Form 10-K and concluded that such restatements were the result of a material weakness relating to the accounting and disclosure for complex

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and non-standard common stock warrant transactions. To address our Company's material weakness related to the accounting and disclosure for complex and non-standard stockholders' equity transactions, we are in the process of enhancing our internal control processes in order to be able to comprehensively review the accounting and disclosure implications of such transactions on a timely basis.

Limitations on the Effectiveness of Controls

Our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Based on their evaluation as of the end of the period covered by this report, management concluded that our disclosure controls and procedures were sufficiently effective to provide reasonable assurance that the objectives of our disclosure control system were met.

Auditor s Report on Internal Control over Financial Reporting

This Annual Report does not include an attestation report of the Company s independent registered public accounting firm regarding internal control over financial reporting. Management s report was not subject to attestation by the Company s registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit the Company to provide only management s report in this Annual Report.

ITEM 9B. OTHER INFORMATION

On March 29, 2011, the Company concluded that the audited financial statements included in the Company s Form 10K as filed with the Securities and Exchange Commission on March 30, 2010 for the year ended December 31, 2009 should no longer be relied upon.

The Company's CEO and CFO identified a material weakness in our internal controls over financial reporting relating to the accounting and disclosure for complex and non-standard common stock warrant transactions. The Company applied the guidance of Accounting Standards Codification 815-40 (ASC 815-40) and recorded a \$618,801 gain on the fair value of the warrant liability for the year ended December 31, 2010. The warrants had been issued in December 2007, January 2008 and August 2008, in connection with convertible promissory notes and were originally accounted for as an equity instrument. Upon further review of the warrants, it was determined that these warrants were not indexed to the Company s stock and therefore required derivative accounting treatment.

The Chief Executive Officer and the Financial Officer of the Company discussed with the registrant s independent auditor, Cross, Fernandez & Riley, LLP. and determined that due to the materiality of the transaction, the Company should restate its financial statements included in Form 10K as filed on March 30, 2010, for the year ended December 31, 2009 to reflect the proper accounting treatment. The Company has included the restated financial statements for the year ended December 31, 2009 herein.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth the names and ages of all of our directors and executive officers as of the date of this Annual Report. Also provided herein is a brief description of the business experience of each director and executive officer during the past five years and an indication of directorships held by each director in other companies subject to the reporting requirements under the Federal securities laws. All of the directors will serve until the next annual meeting of shareholders and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal. There are no arrangements or understandings between any director or executive officer and any other person pursuant to which the director or executive officer was selected.

Name	Age	Position
Timothy N. Tangredi	55	President, Chief Executive Officer and Chairman of the Board of Directors
Scott G. Ehrenberg	57	Chief Technology Officer and Secretary
Judith C. Norstrud	42	Chief Financial Officer and Treasurer
David Longacre	52	Vice President Sales and Marketing

Robert W. Schwartz	66	Director
Raymond Kazyaka Sr.	75	Director

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Directors and Executive Officers

The following are the Company s directors and executive officers:

Timothy N. Tangredi has been our Chief Executive Officer since 1996. Mr. Tangredi joined the Company in 1996, and was appointed a member of our board of directors in 1997. In 1999 and 2000, respectively, Mr. Tangredi initiated and executed the strategic purchases of Analytic Power and American Fuel Cell Corporation. From 1979 to 1990, Mr. Tangredi worked for AT&T, as a member of the Leadership Continuity Program working in technical marketing, network operations, and project management. Mr. Tangredi earned his BS from Siena College and MBA from Rensselaer Polytechnic Institute. He is a founder and member of the board of directors of Aegis BioSciences, LLC (Aegis). Aegis, created in 1995, is a licensee of the Company s nano-structured intellectual property and materials in the biomedical and healthcare fields. Mr. Tangredi spends approximately one to two days per month on Aegis business and is compensated by Aegis for his time and contribution(s).

Scott G. Ehrenberg, is a founder of the Company and has been our Chief Technology Officer since 1993 and Secretary since November 7, 2008. He has thirty years of experience developing along with others new materials and applications. These applications range from laser cutting systems, optical inspection technology, and new organic electronic packages for IBM to new polymer electrolytes for electrochemical and mass transport devices for the Company. His background includes 12 years at IBM plus two previous startups in the fields of electronic packaging and ultrasonic devices: a firm which became Tessera of San Jose, CA and Sono-Tek of Milton, NY. He has 14 issued patents with 6 more pending along with numerous technical papers and presentations. Mr. Ehrenberg received his bachelor of science from Pennsylvania State University in 1976.

Judith C. Norstrud, CPA was appointed Chief Financial Officer and Treasurer on October 14, 2009. In March 2002, Judith founded Norco Accounting & Consulting, Inc., a firm that provides various accounting and consulting services to small companies on an as needed basis. From July 1999 to June 2002, Judith served as a manager with Pender, Newkirk and Company, CPAs. While at Pender, Judith served a variety of companies from start up enterprises to mid-sized publicly traded companies. Previously, from August 1996 to July 1999, Judith was an Audit Senior with PricewaterhouseCoopers, LLP. Judith graduated from the University of South Florida s College of Business Administration with a Master of Accountancy degree in 2002.

David E. Longacre has been Vice President of Sales and Marketing since January 2010. His background includes over 25 years of experience in the Heating, Ventilation and Air Conditioning (HVAC) industry. His career started with York International as a Sales Engineer, progressing to a Zone Manager over 17 years. He worked as an independent manufactures representative for two years before joining Trane, where he was a Strategic Account Manager and Team Leader for five years. He then worked with Siemens Building Technologies as their Service Sales Manager for a district from 2005 through 2007, then became Branch Manager for Johnson Controls handling the profit and loss for both sales and operations during 2007 through 2009. Mr. Longacre received his BS in Commerce and Engineering from Drexel University in 1980. He is also a LEED AP.

Non-Employee Directors

Raymond Kazyaka Sr. was appointed to our board of directors in 1995. He is the President of RJK Tech Ltd. Since 2005. Mr. Kazyaka is the former President (1976-2004) and a co-founder of Wright Malta Corporation, which was founded in 1972. Wright Malta, liquidated in 2005, owned and operated the Malta Test Station, which had performed military product development for various governmental and commercial organizations. Mr. Kazyaka has also served as a consultant to the Canadian National Defense on facility noise abatement. Prior to founding Wright Malta, Mr. Kazyaka worked for General Electric as a rocket engine design engineer and a manager. Mr. Kazyaka holds several patents on rocket engine components and noise abatement systems, and is a senior member of the American Institute of Aeronautics and Astronautics. Mr. Kazyaka graduated from Union College with a degree in Mechanical Engineering in 1953.

Robert W. Schwartz was appointed to our board of directors in 2001. Mr. Schwartz founded the Schwartz-Heslin Group (SHG) in 1985 and serves as one of its Managing Directors. Mr. Schwartz specializes in corporate

planning, finance and development. Prior to starting SHG, he was a founder, President and Chief Executive Officer of a venture-funded high tech telecommunications company (Windsource, Inc.). In addition, he was the President and Chief Operating Officer of an American Stock Exchange listed company (Coradian Corporation). He was also the Chief Financial Officer of a major manufacturer of outdoor power equipment (Troy Built Products, Troy, NY). His earlier experience was with KPMG as a management consultant and with IBM. Mr. Schwartz received a Bachelor of Science from Cornell University in 1967 and attended graduate courses at the University of New York Albany. He currently serves on the boards of five corporations, including ours.

The Board members serve for the latter of a period of one year or until the next annual meeting of Company s shareholders.

Involvement in Certain Legal Proceedings

None of our directors or executive officers has been, during the past ten years:

- (i) involved in any bankruptcy petition filed by or against such person or any business of which such person was a general partner or executive officer, either at the time of the bankruptcy or within two years prior to that time;
- (ii) convicted of any criminal proceeding or subject to a pending criminal proceeding (excluding traffic violations and other minor offences);
- (iii) subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoined, barred, suspended or otherwise limited from involvement in any type of business, securities, futures, commodities or banking activities;
- (iv) found by a court of competent jurisdiction (in a civil action), the Securities and Exchange Commission or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated
- (v) found by a court of competent jurisdiction in a civil action or by the Commission to have violated any Federal or State securities law, and the judgment in such civil action or finding by the Commission has not been subsequently reverse, suspended, or vacated;
- (vii) subject of, or a party to, any Federal or State judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended or vacated, related to an alleged violation of securities or commodities law or regulation; any law or regulation respecting financial institutions or insurance companies; or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- (viii) the subject of, or a party to, any sanction or order, not subsequently reversed, suspending or vacated, of any self-regulatory any registered entity of the Commodity Exchange Act or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Director Independence

The OTC Bulletin Board does not have rules regarding director independence. We expect to apply for listing of our common stock on American Stock Exchange on or soon after the date of the final prospectus in connection with the offering described in our S-1 filing of February 14, 2011. Therefore, our determination of the independence of directors is made using the definition of independent contained in the listing standards of the American Stock Exchange. On the basis of information solicited from each director, the board has determined that Raymond Kazyaka Sr. and Robert W. Schwartz have no material relationship with the Company and is independent within the meaning of such rules. In making this determination, the board evaluated responses to a questionnaire completed by each director regarding relationships and possible conflicts of interest between each director, the company and management. In its review of director independence, the board considered all commercial, industrial, banking, consulting, legal, accounting, charitable, and familial relationships any director may have with the company or management At present, we do not have audit or compensation committees established. It is our intention on the closing of the above described offering to add new outside Board members, and establish at a minimum an audit and compensation committee.

Board Meetings and Committees; Annual Meeting Attendance

Our board of directors has not adopted any committees to the board of directors. Our board of directors held ten formal meeting during the most recently completed fiscal year. Other proceedings of the board of directors were conducted by resolutions consented to in writing by all the directors and filed with the minutes of the proceedings of the directors. Such resolutions consented to in writing by the directors entitled to vote on that resolution at a meeting of the directors are, according to the corporate laws of the State of New York and our bylaws, as valid and effective as if they had been passed at a meeting of the directors duly called and held.

At each annual meeting of shareholders, directors will be elected by the holders of common stock to succeed those directors whose terms are expiring. Directors will be elected annually and will serve until successors are duly elected and qualified or until a director s earlier death, resignation or removal. Our bylaws provide that the authorized number of directors may be changed by action of the majority of the board of directors or by a vote of the shareholders of our Company. Vacancies in our board of directors may be filled by a majority vote of the board of directors with such newly appointed director to serve until the next annual meeting of shareholders, unless sooner removed or replaced. We currently do not have a policy regarding the attendance of board members at the annual meeting of shareholders.

Code of Ethics

We have adopted a code of ethics that applies to our officers, directors and employees in accordance with applicable federal securities laws. We have filed a copy of our code of ethics as an exhibit to our Annual Report on Form 10-K as filed on March 31, 2009. This document may be reviewed by accessing our public filings at the SEC s web site at www.sec.gov. In addition, a copy of the code of ethics will be provided without charge upon request to us. We intend to disclose any amendments to or waivers of certain provisions of our code of ethics in a Current Report on Form 8-K

Compliance with Section 16(a) of the Exchange Act

Section 16(a) of the Exchange Act requires our executive officers and directors, and persons who own more than 10% of any publicly traded class of our equity securities, to file reports of ownership and changes in ownership of our equity securities with the SEC. Officers, directors, and greater than ten percent stockholders are required by SEC regulation to furnish the Company with copies of all Section 16(a) forms that they file.

Based solely on the reports received and on the representations of the reporting persons, we believe that these persons have complied with all applicable filing requirements of Section 16(a) of the Exchange Act during fiscal 2010.

ITEM 11. EXECUTIVE COMPENSATION

The table below summarizes the total compensation earned by or paid to our principal executive officer, our principal financial officer and each of our two other executive officers other than our principal executive officer and principal financial officer for the fiscal years ended December 31, 2010 and 2009. The amounts represented in the Options Award column reflect the stock compensation expense recorded pursuant to the ASC Topic 718 and does not necessarily equate to the income that will ultimately be realized by the named executive for such awards.

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SUMMARY COMPENSATION TABLE

Summary Compensation Table

						•	Non-qualified			
							Deferred	All		
				Stock	Option	Non-Equity	Compensation	other		
Name and principal		Salary	Bonus	Awards	Awards		Ü	compensation		Total
position (a)	Year (b)	(\$) (c)	(\$) (d)	(\$)(2) (e)	(\$)(2) (f)	Plan (g)	(\$) (h)	(\$) (i)		(\$) (j)
Timothy N. Tangredi Chief Executive Officer, President, and Chairman of the Board of Directors(1)	2010 2009	\$ 170,000 \$ 170,000			\$ 95,80 \$ 1,134,42				\$ \$ 1	265,869 ,304,425
Robert W. Brown Vice President of Marketing (3)	2009	\$ 57,187							\$	57,187
David E. Longacre Vice President of Sales and Marketing	2010	\$ 125,000	\$ 10,000		\$ 73,3	86			\$	208,386
Scott G. Ehrenberg, Chief Technology Officer and Secretary	2010 2009	\$ 74,808 \$ 67,100			\$ 89,8	77			\$ \$	164,685 67,100
Judith C. Norstrud, Chief Financial Officer and Treasurer	2010 2009	\$ 50,000 \$ 13,447			\$ 35,95 \$ 82,95				\$ \$	85,951 96,377

- (1) Mr. Tangredi receives a salary of \$170,000 per year, and a bonus in an amount not to exceed 100% of his salary, which bonus shall be measured by meeting certain performance goals as determined in the sole discretion of our board of directors. In 2010 and 2009, Mr. Tangredi was paid \$110,833 and \$55,350, respectively and has accrued unpaid salary of \$59,167 for 2010 and \$114,650 for 2009. Additional accruals have been made for the years prior to 2009.
- (2) The amounts included in these columns are the aggregate dollar amounts of compensation expense recognized by us for financial statement reporting purposes in accordance with Accounting Standards Codification 718, *Compensation-Stock Compensation*, for the fiscal years ended December 31, 2010 and December 31, 2009, and thus include amounts from option awards granted in and prior to the indicated year. For information on the valuation assumptions used in calculating these dollar amounts, see Note 1 to our audited financial statements included in this Report for the fiscal years ended December 31, 2010 and December 31, 2009, each as filed with the SEC. These amounts reflect our accounting expense for these awards and do not correspond to the actual value that may be recognized by the individuals upon option exercise. During the fiscal year ended December 31, 2010, there were 361,125 option award forfeitures related to service-based vesting conditions.
- (3) Mr. Brown s employment with us terminated on July 6, 2010.

Narrative Disclosure to Summary Compensation Table

Employment Agreements

Officer Employment Agreement

Timothy N. Tangredi. We are party to an employment agreement with Mr. Tangredi, our President, Chief Executive Officer, and director. The employment agreement, as amended and restated on July 29, 2008, sets forth Mr. Tangredi s compensation level and eligibility for salary increases, bonuses, benefits, royalty sharing for newer applications, and option grants. Mr. Tangredi s employment agreement provided for an initial term of three years with the term extending on the second anniversary thereof for an additional one year period and on each subsequent

anniversary of the agreement for an additional year period. The agreement sets forth Mr. Tangredi s compensation

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level, conditions for certain option grants, benefits and the obligations of the Company in the event of termination. Mr. Tangredi s base salary is \$170,000, plus certain allowances as well as performance related payments and option issuances.

For each product for which the Company commences commercial sale or licensing during the term and receives more than \$1 million of revenue during any 12 month period, Mr. Tangredi, in addition to any other compensation which he may receive under the agreement, shall be granted options to purchase a minimum of 10,000 shares of the Company s common stock at an exercise price equal to either (i) the lower of: (a) \$2.50 per share or (b) the fair market value per share of the stock on the date of grant as determined in good faith by the Compensation Committee of the Board of Directors, if the Company has not conducted an initial public offering prior to the date of grant (as hereinafter defined), or (ii) at an exercise price equal to 75% of the market price of the common stock, if the Company has completed an initial public offering of its common stock prior to the date of grant (with the market price to be the average of the closing sale prices during the five trading days immediately preceding the date of grant of the option). Such options, as well as any other options granted to Mr. Tangredi during the term of his employment, shall be granted under the Company s then existing stock option plan, shall be immediately exercisable, have a term of ten years, shall be exercisable for up to three years after termination of employment (unless termination is for cause, in which event they shall expire on the date of termination), shall have a cashless exercise feature, and shall be subject to such additional terms and conditions as are then applicable to options granted under such plan provided they do not conflict with the terms set forth in the agreement.

In the event that the fair market value of the Company s common stock (the average of the closing prices of the common stock for any five consecutive trading days, as reported by the principal exchange or other stock market on which the commons stock is then traded) equals or exceeds 200% of the price at which the Company sells common stock in a public offering (the Target Value) at any time during the term of the agreement, Mr. Tangredi shall be granted options to purchase 50,000 shares of common stock at an exercise price equal to 75% of the Target Value, on terms identical to the options provided for above.

In the event Mr. Tangredi s employment is terminated by the Company without cause or by Mr. Tangredi for good reason, death or disability, Mr. Tangredi shall be entitled to the following:

- (i) An amount equal to the sum of (A) the greater of 200% of the base salary then in effect for Mr. Tangredi or \$270,000 plus (B) the cash bonus, if any, awarded to Mr. Tangredi for the most recent year shall be payable by the Company in full within 10 days following termination;
- (ii) The Company shall continue to provide Mr. Tangredi the health and life insurance, car allowance and other benefits set forth in the agreement until two years following termination of employment, and shall continue to offer any of such benefits to Mr. Tangredi beyond such two year period to the extent required by COBRA or similar statute which may then be in effect;
- (iii) All stock options, to the extent they were not exercisable at the time of termination of employment, shall become exercisable in full; and
- (iv) Any indebtedness of Mr. Tangredi to the Company shall thereupon be cancelled and of no further force and effect, and the Company shall pay to Mr. Tangredi, within ten days following receipt of a written demand therefore, any income or other taxes resulting from such cancellation.

In the event that Mr. Tangredi elects to terminate employment within one year following a change in control of the Company, he shall receive, within the later of ten days following the date on which the change in control occurs or the date on which he gives notice of his election to terminate employment, a lump sum payment equal to three times the greater of (i) his then current base salary plus the cash bonus, if any, awarded to him for the most recent year or (ii) \$350,000 plus said cash bonus. In addition, he will be entitled to accelerated vesting of outstanding options and continuing benefits as described above.

Significant Employee

Patricia K. Tangredi. We are a party to an employment agreement with Ms. Tangredi. The agreement, provided for an initial term of 3 years beginning on January 1, 2001, with automatic extensions for subsequent one year terms, unless the Company or Ms. Tangredi provides the other party with written notice of intent not to renew. The

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agreement was subsequently amended and restated on July 29, 2008. The employment agreement set forth Ms. Tangredi s compensation level and eligibility for salary increases, options, royalty sharing for newer applications, benefits and the obligations of the Company in the event of termination. A portion of Ms. Tangredi s salary has been accrued and carried on the Company s books since 2002.

In the event Ms. Tangredi s employment is terminated by the Company without cause or by the Ms. Tangredi for good reason or by reason of death or disability, Ms. Tangredi shall be entitled to the following:

- (i) the greater of 100% of the base salary then in effect for Employee or \$115,000, which amount shall be payable by the Company in full within 10 days following termination;
- (ii) the Company shall provide, at its sole cost, Ms. Tangredi with the medical benefits for one year following the date of termination. The Company shall continue to offer such benefits to Ms. Tangredi beyond such one year period to the extent required by COBRA or any similar statute which may then be in effect; and
- (iii) all stock options granted to Ms. Tangredi at any time during the course of the term shall be exercisable in full.

In the event that Ms. Tangredi elects to terminate her employment within six months following a change in control of the Company, she shall receive, within the later of 10 days following the date on which the change in control occurs or the date on which she give notice of her election to terminate employment, a lump sum payment equal to the greater of three times her then current base salary or \$235,000. In addition, she will be entitled to accelerated vesting of outstanding options and continuing medical benefits as described above.

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Outstanding Equity Awards

The following table summarizes outstanding unexercised options, unvested stocks and equity incentive plan awards held by each of our name executive officers and significant employees, as of December 31, 2010.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

OPTION AWARDS							STOC	CK AWAR	DS
									Equity
									incentive
									plan
									awards:
									Market
								E	
								Equity incentive	or
									payout value
								plan	of
							Market	awards: number	
			Equity				value		unearned
			Incentive			Number	of shares	of	shares,
			Plan			Number shares		unearned shares,	
			Awards:			or	units	units	or
			Number of			units	of	or other	other
	Number of	Number of	Securities			of	stock	rights	rights
	securities	securities		0.4		stock	that	that	that
	underlying	underlying	underlying	Option		that	have	have	have
	unexercised	unexercised	unexercised	exercise	Option	have	not	not	not
	options (#)	options (#)	unearned	price	expiration	not	vested	vested	vested
N (a)	Exercisable	Unexercisable	options (#)	(\$)	date	vested ((#)	(\$)
Name (a) Timothy N. Tangredi (1)	(b) 825,000	(c)	(d)	(e) \$ 0.26	(f) 9/23/2014	(g)	(h)	(i)	(j)
Timothy N. Tangredi (1)	150,000	0	0	\$ 0.20	5/10/2015				
	120,000	0	0	\$ 0.10	10/1/2015				
	40,000	0	0	\$ 0.30	5/2/2016				
	110,000	0	0	\$ 0.55	11/1/2016				
	140,000	0	0	\$ 0.55	2/20/2017				
	300,000	0	0	\$ 0.21	8/18/2017	7			
	350,000	0	0	\$ 0.21	1/30/2018	3			
	3,000,000*	0	0	\$ 0.36	4/18/2013				
	75,000	0	0	\$ 0.30	8/4/2018				
	100,000	0	0	\$ 0.42	11/12/2019				
	3,540,058 400,000	0	0	\$ 0.42 \$ 0.30	11/12/2019 6/25/2020				
* Warrant	400,000	U	U	\$ 0.50	0/23/2020	,			
Scott G. Ehrenberg (2)	140,000	0	0	\$ 0.26	9/23/2014	1			
, , , , , , , , , , , , , , , , , , ,	110,000	0	0	\$ 0.10	5/10/2015				
	80,000	0	0	\$ 0.10	10/1/2015				
	40,000	0	0	\$ 0.55	11/1/2016				
	120,000	0	0	\$ 0.55	2/20/2017				
	50,000	0	0	\$ 0.21	8/18/2017				
	250,000	0	0	\$ 0.30	8/4/2018				
	*250,000	250,000	250,000	\$ 0.30	8/4/2013				
	125,000	250,000	250,000	\$ 0.30	6/25/2020)			

* Warrant

Judith C. Norstrud (3)	200,000	0	0	\$ 0.45	10/15/2019
	50,000	100,000	100,000	\$ 0.30	6/25/2020
David E. Longacre (4)	0	200,000 100,000	0	\$ 0.28 \$ 0.30	1/20/2020 7/6/2020

- (1) The April 2008 warrant grant to Mr. Tangredi for 3,000,000 shares was made by the Board of Directors in recognition for Mr. Tangredi s achievement of the following goals: negotiating conversion of the convertible notes issued in the Additional Financing, securing a release with respect to the consulting agreement with Gray Capital Partners, Inc., securing and closing upon the Financing. All stock options issued to Mr. Tangredi prior to December 31, 2009 were issued under the 2000 Plan. The remaining options were issued under the 2009 Plan.
- (2) All stock options issued to Mr. Ehrenberg prior to December 31, 2009 were issued under the 2000 Plan. The remaining options issued under the 2009 Plan.
- (3) All stock options issued to Ms. Norstrud prior to December 31, 2009 were issued under the 2000 Plan .The remaining options were issued under the 2009 Plan.
- (4) All stock options issued to Ms. Longacre were issued under the 2009 Plan.

Director Compensation

The following table sets forth the compensation awarded to, earned by or paid to the directors during the fiscal year ended December 31, 2010.

DIRECTOR COMPENSATION

	Change							
					in			
					Pension			
					Value			
					and			
	Fees Earned			Non-Equity	Non-qualified			
	or Paid			Incentive	Deferred			
	in	Stock	Option	Plan	Compensation	All Other		
	Cash	Awards	Awards	Compensation	Earnings	Compensation		
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	Total (\$)	
Name (a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
Raymond Kazyaka Sr., Director(1)			\$ 127,034				\$ 127,034	
Robert W. Schwartz, Director(2)			\$ 127,034				\$ 127,034	

- (1) At fiscal year end December 31, 2010, Mr. Kazyaka had 904,600 option awards outstanding and no stock awards outstanding.
- (2) At fiscal year end December 31, 2010, Mr. Schwartz had 874,600 option awards outstanding and no stock awards outstanding.

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We do not have a plan pursuant to which our directors are compensated and directors do not receive cash compensation for their services on the Board of Directors although they do receive stock options as determined by the full board of directors. Timothy N. Tangredi, Raymond Kazyaka Sr. and Robert W. Schwartz were each granted an option on June 25, 2010 to purchase 400,000 shares of common stock at an exercise price of \$0.30 per share, vesting immediately upon issuance and exercisable for a period of ten years. This option grant to Mr. Tangredi as a director is contained in the table summarizing grants made to our officers.

Our non-employee directors are currently compensated with the issuance of stock options, which generally become exercisable upon the date of grant, and which generally expire on the earlier of ten years from the date of grant or up to three years after the date that the optionee ceases to serve as a director. Non-employee directors are also reimbursed for out-of-pocket expenses associated with attending to the Company s business.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STO