

DAIS ANALYTIC CORP
Form 10-K
March 31, 2009

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

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

For the Fiscal Year Ended December 31, 2008

TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT
1934

For the transition period from _____ to _____

Commission file number: 333-152940

DAIS ANALYTIC CORPORATION
(Exact name of registrant as specified in its charter)

New York
(State or Other Jurisdiction of Incorporation or Organization)

14-1760865
(I.R.S. Employer Identification No.)

11552 Prosperous Drive
Odessa, Florida
(Address of Principal Executive Offices)

33556
(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 \$0.001 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

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

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 No

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

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) 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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately \$1,591,244 as of the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price on the Pink Sheets 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 31, 2009, the Registrant had 16,482,731 outstanding shares of its common stock, \$0.01 par value.

DAIS ANALYTIC CORPORATION
FORM 10-K

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PART I

INTRODUCTORY NOTE

FORWARD-LOOKING STATEMENTS

Information included or incorporated by reference in this Annual Report may contain forward-looking statements. 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 Form 10-K Annual Report 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 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.

ITEMBUSINESS

1.

Dais Analytic Corporation is a nano-structure polymer technology materials company which has developed and is selling ConsERV™, a energy recovery ventilator, a Heating, Ventilation and Air Conditioning (“HVAC”) energy conservation product. We intend to develop other nano-structure polymer technology products including (i) “NanoAir”, a water based HVAC system and (ii) “NanoClear”, a water clean-up process useful to create potable water from sea, brackish or waste water. We further believe that our nano-structure polymer technology may be useful in developing a Ultra-capacitor, a device capable of greater energy density and power per pound than traditional capacitors or batteries.

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.

Financing

From December 2007 to January 2008, we issued (i) 9% secured convertible promissory notes in an aggregate principal amount of \$2,950,000 the principal amount of which may be converted into 14,750,000 shares of common stock, par value \$.01 per share and (ii) warrants to purchase up to 14,750,000 shares of common stock at an exercise price of \$.25 per share (the “Financing”). Aggregate proceeds to the Company from this Financing were \$2,950,000. The notes issued in the Financing mature 12 months from the date of issuance and may be converted into common stock at the option of the holder any time prior to the maturity date at a conversion price of \$0.20 per share. The notes include standard default provisions and price protection with regards to issuance by the Company of common stock and common stock equivalents. The warrants issued in the Financing have a five-year term, cashless exercise provisions and anti-dilution protection. Pursuant to the terms of the Financing and the Security Agreement entered into in connection with the Financing, we granted investors a first priority security interest in our patents and certain patent applications. There are no other liens currently in effect against such patents or patent applications. The Company was obligated to register the shares of common stock underlying the convertible principal amount of the convertible notes and warrants issued in this Financing pursuant to a registration rights agreement entered into with investors in this Financing. On August 11, 2008, we filed a registration statement on Form S-1 covering the resale of up to 18,110,782 shares of common stock. Such registration statement was declared effective November 12, 2008.

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 dependant on the size and type of a particular molecule.

Products

ConsERV™

We currently sell one product, our ConsERV™ product, a HVAC energy conservation product which, according to various tests, saves an average of up to 30% on HVAC operating costs and allows 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 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 filter of sorts. The nano-technology ‘filter’ 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 2009.

How It Works

Most building codes mandate commercial structures 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 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.

Given third-party test data, our ConsERV™ product, with its nano-structured materials, offers better total performance than other ERV products of which we are aware, with no moving parts and little or no cross-air stream contamination.¹ 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 competing energy recovery products and our ConsERV™ product is more efficient in transferring moisture with lower life cycle maintenance costs.

Studies have shown recent increases in the levels and overall volatility of energy prices in the United States (averaging in excess of 11% during 2007) have prompted renewed interest by corporate and political leaders, as well as the public at large, in energy conservation initiatives.²

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

- Achieving continued technological improvements in key materials to lower our ‘per unit’ cost structure.
- Completing outsourced manufacturing and assembly relationships which lower our ‘per unit’ cost structure.
- Securing 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/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.
- Obtaining capital in a timely manner for the necessary steps outlined above to continue without interruption.

Our Other Nano-Structured Products

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, insignificant revenues have been generated from these non-ConsERV™ related applications.

These product applications and activities include:

- Water Clean-up or “NanoClean”: 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 current methods. We have developed a functional table-top demonstration unit which highlights the basics of how this system works using the Company’s nano-structured materials to clean water. This demonstration unit is being used as the basis for the product’s next planned inflexion point: a small pilot plant. The NanoClean product is currently in the middle to late stages of Alpha/Beta development.
- Water Based 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 is designed to 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 to late stages of Alpha/Beta development.

¹ 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.

2 “Rising demand for oil provokes new energy crisis,” New York Times, Nov. 9, 2007.

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- Ultra-capacitor: Based on initial tests conducted by a third party, 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. The key application for such a device would be in transportation.

As previously mentioned, aside from our ConsERV™ product, the Company has three additional products under development. The Company intends to sell polymer membrane or polymer membrane incorporated into an application appropriate form, or to license the application. We do not intend to build and market the entire product. The three product applications include:

| Application | Current Stage | Estimated Funding Required to Commercialize | Estimated Time to Market (post funding) |
|---|---|---|---|
| Water Clean-up (NanoClean) - A process using a low temperature, low pressure approach to process brackish and salt water into potable water. | 3rd Stage Alpha/Beta | \$9 Million | 24 – 36 month |
| Advanced Heating, Ventilating, and Air Conditioning (NanoAir)- A process using the nano-technology materials to create an advanced heating, ventilating, and air-conditioning system. | 3rd Stage Alpha/Beta | \$9 Million | 18 – 24 month |
| 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. Current activities are moving us closer to the optimization of materials. An alpha prototype would then will be required. | \$22 Million | 36 – 48 months |

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 patents and to four pending U.S. patent applications. We co-own two pending Patent Cooperation Treaty (“PCT”) applications with Aegis Biosciences LLC, a biomaterials drug delivery technology company. 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 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 highly selective for the ions or molecules they transfer. The high 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 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-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. 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 styrene based 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 (former Shell Oil). Our process changes the molecular properties of the starting styrene based polymer resins into a liquid material which 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 10,000 foot rolls and shipped to us. Currently this is provided to us by one vendor. Additional vendors for this component have not been sought by the Company. However, we have identified other entities making similar types of products and believe such entities and products may provide alternatives should one be required.

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 us or a vendor. 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.

In the start-up phase of the ConsERV™ business we brought on a limited number of independent sales representatives. This was done for quality and infrastructure reasons. As a result, the bulk of our revenues are concentrated in a small number of customers that distribute our product to the consumers.

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.

Research and Development

The Company has spent approximately \$45,000 on research and development during the last two fiscal years.

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.

Comfort Systems USA

In June 2006 we entered into a non-exclusive national sales arrangement with Comfort Systems, a national HVAC and mechanical systems installation and service company principally oriented to the mid-market commercial industrial and institutional sectors. Pursuant to this arrangement, Comfort Systems and its 42 branches agreed to sell our ConsERV™ product to new or retro-fit HVAC building applications. Our marketing team has begun working with Comfort Systems designers on new and retro-fit HVAC system applications.

ConsERV™ - Sales and Marketing Strategies

We market our ConsERV™ product principally through alliances with local independent manufacturer representatives. We currently have 24 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 approximately 40 to properly cover the North American commercial sales territory. We are also working to secure ongoing relationships with 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.

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 believe working with industry leaders at the development level 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, Renewaive and AirXchange.

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 | AAON, Trane |
| NanoClean | Dow, Dupont, GE |
| NanoAir | AAON, Trane, |
| Ultracapacitor | EEstor Maxwell |

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, 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. WO2008.141179 – Molecule Sulphonation Process *

5. WO/2009/002984 – Stable and Compatible Polymer Blends*
6. WO2009/002984 – Novel Coblock Polymers and Methods for Making Same

*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 desalination. We do not believe that the cost of complying with such codes and regulations, to the extent applicable to our products, will be material.

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 March 5, 2009, we employed 14 full-time employees and one part time employee in our Odessa, Florida facility. Of the 14 employees, 3 are technicians, 2 product managers, 1 polymer chemist, 2 engineers, 1 development vice president, 1 administrative assistant, 1 administrator, 2 sales managers, 1 accountant 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

\$2,950,000 of our 9% convertible secured promissory notes have matured, which may cause us to go out of business if Judgments are obtained.

At December 31, 2008, as a result of the Financing transaction, the Company had 23 note holders holding \$2,950,000 in principal amount 9% convertible secured promissory notes together with the interest thereon outstanding. As of the date hereof those holding notes constituting \$675,000 of the aforementioned aggregate principal amount agreed to convert and \$325,000 agreed to extend and all such remaining notes have matured and remain outstanding. Management has requested each note holder either extend the term of its note by nine (9) months or convert the full amount of all principal and interest due thereunder into shares of Company's common stock pursuant to the terms of the note. Those note holders opting to convert under the foregoing request will receive a five (5) year warrant subject to which holder may purchase shares of Company's common stock equal in number to one third the number of shares received by the note holder due to conversion of the principal amount of the note at an exercise price of twenty-five cents (\$.25) per share. To date five of the 23 note holders have agreed to extend the maturity date of their notes and two note holders have agreed to convert their notes. If we are unable to reach an agreement with all the note holders and the note holders elect to obtain a judgment against the company, we may be forced out of business. The Company will find it difficult to continue its business, including financing its operations, where a default continues.

We have a history of losses since our inception, we expect to sustain future losses and we may never achieve or sustain profitability.

We have incurred substantial losses since we were founded in 1993 and we anticipate we will continue to incur substantial losses in the future. As of December 31, 2008, we had an accumulated deficit of approximately \$28.8 million. We have not achieved profitability in any year since inception and we expect to continue to incur net losses and negative free cash flow until we can produce sufficient revenues to cover our cost, which is not expected for several years. We have only one product fully developed and marketed, ConsERV™, and anticipate all other products will take at least 18 to 36 months to develop. Furthermore, even if we achieve our projection of selling a greater number of ConsERV™ units in 2009, we anticipate that we will continue to incur losses until we can cost-effectively produce and sell our products to a wider market. Even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future.

We may lose all our patents and the majority of our patent applications if we are unable to repay or convert the principal and interest on the outstanding 9% secured convertible notes issued in the Financing transaction or obtain an agreement for extension of the maturity dates.

Demands for repayment have been received from four note holders and negotiations with the note holders continue. The Company does not have adequate funds to repay the notes and does not expect to attain adequate funds for repayment from operations. The notes are secured by all of the Company's patents and the majority of the Company's 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 the notes. The Company intends to continue to finance its operations, including the repayment of the notes, primarily through private sales of debt and equity securities. The Company may not be able to secure additional financing to repay the notes on acceptable terms, if at all. There is no guarantee that all note holders will accept the above offer. Further, some note holders may request additional concessions from the Company in return for extending or converting their note. Any such additional consideration would likely be offered to all note holders. Any re-negotiated terms we may be able to secure may not be favorable to the Company. 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 the notes, (ii) the notes are not converted into shares of our common stock, or (iii) we are not able to negotiate extensions to the maturity dates of the notes, note holders will have the option to foreclose on all of our patents and those patent applications securing the notes, which would likely result in the failure of our business.

If we fail to raise additional capital we will be unable to continue our business.

Our commercialization and development efforts to date have consumed and will continue to require substantial amounts of capital in connection with our nano-technology material based products (including but not limited to ConsERV™, water desalination, immersion coatings, and performance fabrics). Our channel penetration and product development programs require substantial capital outlays in order to reach full product commercialization. As we enter into more advanced product development we will need significant funding to complete product development and to pursue product commercialization.

Additionally, our auditors have expressed substantial doubt about our ability to continue as a going concern. Our ability to continue our business and our research, development and testing activities and commercialize our products in development is highly dependent on our ability to obtain additional sources of financing, including entering into and maintaining collaborative arrangements with third parties who have the resources to fund such activities. 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 security interest in 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 repay our 9% notes and to fund our ongoing operations, including planned product development initiatives, clinical studies and commercialization efforts, will have material adverse consequences on our business operations, consolidated financial condition, results of operations and cash flows.

We have a history of operating losses, and we expect our operating losses to continue for the foreseeable future and we may not continue as a going concern.

Our accumulated deficit was \$28.8 million as of December 31, 2008. The reports from Pender Newkirk & Company, LLC, our independent registered public accounting firm, relating to our December 31, 2008 financial statements contains Pender's opinion that our net losses from operations, negative working capital, accumulated deficit and stockholder's deficit raised substantial doubt about our ability to continue as a going concern. There has been no change in the Company's position relative to the foregoing statements. 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 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 additional products to the market including research and development, design and testing, obtaining third party validations, identifying and securing collaborative partnerships, and executing to enter into strategic relationships.

The Company financed its operations since inception primarily through private sales of its common and preferred stock, issuance of convertible promissory notes, cash received in connection with exercise of warrants, license agreements and the sale of certain fuel cell assets in 2002. As of December 31, 2008, the Company had \$395,150 of current assets.

Even if the Company is successful in raising additional equity capital to fund its operations, the Company will still be required to raise an additional substantial amount of capital in the future to fund its development initiatives and to achieve profitability. The Company's ability to fund its 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.

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 the Company having no access to certain portions of its own technology.

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 the Company. Certain vendors from which we currently secure parts for our ConsERV product have either reduced or eliminated 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 experienced a decided down turn in project starts. 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 continue to be negatively impacted. Expenditures under the recently enacted United States economic stimulus plan appear to have targeted energy products. ConsERV™ may qualify under said program and the Company 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. In the interim, we will need additional capital to address these external conditions. An internal program to reduce personnel costs including the reduction of some salaries and limited furloughs has been undertaken. Such a program may impact our ability to retain personnel and produce our products; however, we do not expect the impact of our internal program to be significant or long in duration. As noted above, we intend to continue to finance operations, including the repayment of the outstanding convertible notes, primarily through private sales of debt and equity securities. In light of the recent economic downturn the Company 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. In particular, commencing in 2009, we must perform system and process evaluation and testing of our internal controls over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses. We expect to incur significant expense and devote substantial management effort toward ensuring compliance with Section 404. 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.

Furthermore, we currently do not have an internal audit function, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. If we are not able to comply with the requirements of Section 404 in a timely manner, or 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. NASDAQ rules also require that a majority of our Board of Directors and all of the members of certain committees of the Board of Directors consist of independent directors. We cannot assure you that we will be able to expand our Board of Directors to include a majority of independent directors in a timely fashion to comply with the requirements of these rules.

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 small 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. 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 18 to 48 months 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.

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.

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 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, since we have only sold limited quantities of our products, we have limited experience 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 nano-structured materials and valued 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 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 collecting international accounts receivable;
- increased costs associated with maintaining international marketing efforts;
- compliance with potential United States Department of Commerce export controls;
- increases in duty rates or other adverse changes in tax laws;
- trade protection measures and import or export licensing requirements;
- fluctuations in currency exchange rates;
- political and economic instability in foreign countries; and
- 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, four patent applications and co-own two PCT 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. The PCT applications may be submitted as patent applications in foreign countries. 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 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.

The members of our scientific advisory board are 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 those 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 products. If the cost of warranty claims exceed 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 will 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 our products. This could result in a decline in demand for our products, which would reduce revenue and harm our business.

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 the Company 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 recruit and retain additional experienced 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 Company. Any dissent among executive officers could impair our ability to make strategic decisions.

Effective as of March 1, 2009, the Company reduced the salaries of its employees by approximately thirty percent (30%). These 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.

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;
 - dilution of our stock if we issue additional securities;
- 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;
 - 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 Company 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 18 to 36 months to develop our other products for commercial sale, 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 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.

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

Future issuances or the conversion or exercise, as applicable, of our outstanding convertible securities and warrants could result in substantial dilution to the interests of our shareholders and downward pressure on the price of our common stock.

The issuance of any shares of our common stock, either pursuant to the conversion or exercise of our outstanding convertible securities and warrants or pursuant to any other agreement entered into by us in the future, may result in substantial dilution to the interests of holders of our common stock. The sale of our shares of common stock in the market could cause the market price of our common stock to decline as a result of the increased supply of shares, which could in turn cause you to lose a portion of your investment. Such depression in the value of our common stock could also reduce or eliminate amounts that would otherwise have been available to pay dividends on our common stock or to make distributions upon our liquidation.

Furthermore, shares owned by our current shareholders, who are registered in a registration statement, or which otherwise may be transferred without registration pursuant to applicable exemptions under the Securities Act of 1933, as amended (the "Securities Act") may be sold. Because of the perception by the investing public that a sale by such insiders may be reflective of their own lack of confidence in our prospects, the market price of our common stock could decline as a result of a sell-off following sales of substantial amounts of common stock by our officers, directors and 5% or more beneficial owners into the public market, or the mere perception that these sales could occur.

Our stock price is likely to be volatile.

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. 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 dependant 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.

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

As of January 31, 2009, our directors and officers, as a group, beneficially own approximately 44% of our outstanding common stock, including shares of common stock issuable upon exercise of warrants and options. 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.

As a company quoted on the OTC Bulletin Board, we are not subject to any minimum listing criteria or other eligibility requirements.

Companies that are listed on a national securities exchange, such as the NASDAQ Stock Market, American Stock Exchange or New York Stock Exchange, must meet certain qualitative and quantitative listing criteria, such as they must meet requirements with respect to operating results, net asset thresholds, corporate governance, trading price and minimums for their public float. Companies that are quoted on the OTC Bulletin Board, while not subject to listing requirements per se, must be registered with the SEC under Section 13 or 15(d) of the Exchange Act, and must remain current in their reporting requirements in order to remain eligible for quotation. As we are quoted on the OTC Bulletin Board, we do not need to meet minimum listing criteria and the information available regarding us, our financial condition, business or operations, may be more limited than those companies listed on a national securities exchange. Therefore you may find it more difficult to obtain accurate quotations as to the price of our securities or dispose of

securities which you own.

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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.

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.

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:

- the trading volume of our shares;
- the number of securities analysts, market-makers and brokers following our common stock;
- new products or services introduced or announced by us or our competitors;
- actual or anticipated variations in quarterly operating results;
- conditions or trends in our business industries;
- announcements by us of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel;
- sales of our common stock;
- general stock market price and volume fluctuations of publicly-quoted, and particularly microcap, companies; and
- material legal action.

Shareholders, including but not limited to those who hold shares as a result of the exercise or conversion of our outstanding 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.

Our common stock is considered a “penny stock,” which generally is a stock trading under \$5.00 and not registered on a national securities exchange. 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.

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.

Our listing has moved to the OTC Bulletin Board as of November 24, 2008, subjecting us to additional regulatory requirements which may negatively affect our common stock’s trading price.

On November 24, 2008, the Company moved its listing to the OTC Bulletin Board where the trading price of our common stock has been and is expected to remain below \$5.00 per share. As a result of this exchange relocation, trading in our common stock is subject to the requirements of certain rules promulgated under the Exchange Act. These rules require additional disclosure by broker-dealers in connection with any trades generally involving any non-NASDAQ equity security that has a market price of less than \$5.00 per share, subject to certain exceptions. Such rules require the delivery, before any penny stock transaction, of a disclosure schedule explaining the penny stock market and the risks associated therewith, and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors (generally institutions). For these types of transactions, the broker-dealer must determine the suitability of the penny stock for the purchaser and receive the purchaser’s written consent to the transaction before sale. The additional burdens imposed upon broker-dealers by such requirements may discourage broker-dealers from effecting transactions in our common stock. As a consequence, the market liquidity of our common stock could be severely affected or limited by these regulatory requirements.

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 per month. 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

None.

ITEM 4.

SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

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PART II

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

Our common stock was traded from November 15, 2005 to November 23, 2008 on the PinkSheets 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 bid 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, 2008: | | |
| First Quarter | .51 | .15 |
| Second Quarter | .51 | .24 |
| Third Quarter | .45 | .16 |
| Fourth Quarter | .20 | .07 |
| For the year ending December 31, 2007: | | |
| First Quarter | 1.45 | .20 |
| Second Quarter | .60 | .12 |
| Third Quarter | .51 | .21 |
| Fourth Quarter | .88 | .15 |

The above prices represent inter-dealer prices, without retail mark-up, mark-down or commissions, and may not represent actual transactions.

Transfer Agent

Our transfer agent is Island Stock Transfer located at 100 Second Avenue South, Suite 104N St. Petersburg, Florida 33701, telephone (727) 289-0010.

Holders

As of March 24, 2009 there were approximately 146 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") under which our securities are authorized for issuance as of December 31, 2008.

| Plan Category | Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights | Weighted Average Exercise Price of Outstanding Options, Warrants and Rights | Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans |
|---|--|---|---|
| Equity compensation plans approved by security holders: | 8,606,557 | .263 | 3,767,325 |
| Equity compensation plans not approved by security holders: | 0 | 0 | 0 |

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In June 2000, our board of directors adopted, and our shareholders approved, the 2000 Plan, which provides 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 plan, including, but not limited to, officers, directors and employees of the Company. Certain awards under the 2000 Plan may be subject to performance conditions.

Number of Shares of Common Stock Available Under the 2000 Plan. 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.

Administration of the 2000 Plan. The 2000 Plan is administered by a committee of two or more directors designated by the board of directors to administer the 2000 Plan (the "Committee") or, in the absence of such Committee, by the board of directors. Currently, the 2000 Plan is administered by our board of directors. The board of directors has the authority to select the participants to whom awards under the 2000 Plan 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 2000 Plan and to prescribe the rules and regulations for the administration of the 2000 Plan. No option or stock appreciation rights granted under the 2000 Plan shall be exercisable, however, more than ten years after the date of the grant.

Exercise Price. The 2000 Plan requires 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.

Transferability. Awards granted under the 2000 Plan 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 2000 Plan. The terms of these grants may be individually negotiated.

RECENT SALES OF UNREGISTERED SECURITIES- USE OF PROCEEDS

During the past three years, we issued the following securities without registration under the Securities Act of 1933, as amended (the “Securities Act”), pursuant to exemption from registration under Section 4(2) and Regulation D of the Securities Act:

In August 2008 we issued a five year warrant to purchase 250,000 shares of common stock to Mr. Ehrenberg in recognition for Mr. Ehrenberg’s achievement of certain company goals. The fair value of the warrant issued is approximately \$49,000. The warrant vested upon issuance and has an exercise price of \$.30 per share.

In April 2008 we issued a five year warrant to purchase 3 million shares of common stock to Mr. Tangredi in recognition for Mr. Tangredi’s achievement certain company goals. The fair value of the warrant issued is approximately \$687,000. The warranted vested upon issuance and has an exercise price of \$.36 per share.

In January 2008 we closed on an aggregate of \$2,950,000 in gross proceeds from the private sale to 23 accredited investors of 9% secured convertible notes and warrants to purchase 14,750,000 shares of our common stock. The convertible notes provided that such notes may be converted into one share of common stock for every \$.20 in principal and interest on the convertible notes. The warrants have a five-year term, cashless exercise provisions and anti-dilution protection. The anti-dilution protection includes standard protection for stock dividends or splits, reclassification or capital reorganization as well as protection with regards to additional issuances of common stock or common stock equivalents. The exercise price is \$0.25 per share of common stock. Pursuant to the terms of this financing we granted the investors a security interest in certain of our assets. We entered into an agreement with placement agent, Legend Merchant Group, Inc. on October 5, 2007 pursuant to which, Legend Merchant Group, Inc. received a cash commission equal to 8% of the gross proceeds raised by Legend Merchant (and its subagent), which totaled \$2,800,000, plus a warrant equal to 10% of the number of shares of common stock underlying the warrants issued to convertible note holders, or 1,400,000. The issuance of these securities was exempt from registration under Section 4(2) and Regulation D of the Securities Act. The Company made this determination based on the representations of the investors, which included, in pertinent part, that such investors were either (a) “accredited investors” within the meaning of Rule 501 of Regulation D promulgated under the Securities Act or (b) had a pre-existing or personal relationship with the Company. Each investor further represented that he or she was acquiring our common stock for investment purposes not with a view to the resale or distribution thereof and understood that the shares of our common stock may not be sold or otherwise disposed of without registration under the Securities Act or an applicable exemption therefrom. A legend was included on all offering materials and documents which stated that the shares have not been registered under the Securities Act and may not be offered or sold unless the shares are registered under the Securities Act, or an exemption from the registration requirements of the Securities Act is available.

In February 2008 we issued 140,000 shares of common stock and warrants to purchase an additional 140,000 shares to Richardson & Patel LLP, our legal counsel, in connection with performance of legal services pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$59,000. On August 7, 2008, we issued an additional 252,308 shares of common stock and warrants to purchase an additional 252,308 shares to Richardson & Patel LLP in connection with performance of legal services pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$136,000.

From October 2005 to February 2007 we sold an aggregate of \$1,265,547 of secured convertible promissory notes to 16 accredited investors (the “Additional Financing”). Pursuant to a subsequent conversion agreement between the Company and the various note holders, the notes were converted into an aggregate of 3,258,323 shares of common stock and warrants to purchase 428,677 shares of common. The issuance of these securities was exempt from registration under Section 4(2) and Regulation D of the Securities Act. The Company made this determination based

on the representations of the investors, which included, in pertinent part, that such shareholders were either (a) “accredited investors” within the meaning of Rule 501 of Regulation D promulgated under the Securities Act or (c) had a pre-existing or personal relationship with the Company. Pursuant to an agreement with the Company, note holders opting to convert their notes received one share for every \$.275 in principal and one share for every \$.25 in interest. The warrants issued in the Additional Financing have a five-year term and anti-dilution protection for stock dividends or splits, mergers, consolidation, reclassification, capital reorganization or a sale of substantially all of the Company’s assets. The exercise price is \$0.55 per share of common stock, do not provide for cashless exercise and are exercisable as follows: (a) one third of the total number of warrant shares on or after the six month anniversary of the issuance date, (b) an additional one third of the total number of warrant shares on or after the one year anniversary of the issuance date, and (c) in full commencing on or after the 18 month anniversary of the issuance date. If the per share market value of the Company’s common stock is \$1.50 per share or greater for ten consecutive trading days (subject to adjustment to reflect stock splits, stock dividends, recapitalizations and the like), the Company may require the holder to exercise the warrant and purchase all warrant shares within ten business days of the Company issuing notice to the holder or the warrant will automatically terminate. The warrants do not contain any redemption features. Investors in the Additional Financing have no registration rights.

From December 2006 to March 2007 we sold 818,181 shares of common stock and warrants to purchase 112,499 shares of common stock to six trust and family members of the Daily family pursuant to exemption from registration under Section 4(2) and Regulation D of the Securities Act for aggregate gross proceeds of \$450,000. The warrants have a five-year term and anti-dilution protection for stock dividends or splits, mergers, consolidation, reclassification, capital reorganization or a sale of substantially all of the Company's assets. The exercise price is \$0.55 per share of common stock and vested upon the issuance of the warrant.

In December 2006 we issued a warrant to purchase 84,555 shares of common stock to Matrix, USA in connection with providing strategic financial advice to the Company pursuant to exemption from registration under Section 4(2) and Regulation D of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$52,028.61. The warrants have a five-year term and anti-dilution protection for stock dividends or splits, mergers, consolidation, reclassification, capital reorganization or a sale of substantially all of the Company's assets. The exercise price is \$0.55 per share of common stock and vested upon the issuance of the warrant.

In February 2007 we issued 180,000 shares of common stock to Consulting for Strategic Growth, Inc. for consulting services pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$170,000.

In February 2007 we issued 50,000 shares of common stock to Spartan Securities, St. Petersburg, FL in connection with Spartan's senior management team providing strategic financial advice to the Company pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$47,000.

In February 2007 we issued 100,000 shares of common stock to Michael Williams, P.A, in connection with legal services pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$55,000.

In January 2008, we issued 439,293 shares of common stock and warrants to purchase 50,000 additional to the Robb Charitable Trust pursuant to exemption from registration under Section 4(2) and Regulation D of the Securities Act. The 439,293 shares of common stock were issued in connection with an amendment to a prior note pursuant to which one half of the principal and interest was payable in cash and one half of the principal and interest was payable in common stock. The aggregate value of principal and interest relating to the conversion was \$108,540. The warrant was issued pursuant to the terms of the original note. The warrants have a five-year term and anti-dilution protection for stock dividends or splits, mergers, consolidation, reclassification, capital reorganization or a sale of substantially all of the Company's assets. The exercise price is \$0.55 per share of common stock and they do not provide for cashless exercise. These warrants are exercisable as follows: (a) one third of the total number of warrant shares on or after the six month anniversary of the issuance date, (b) an additional one third of the total number of warrant shares on or after the one year anniversary of the issuance date, and (c) in full commencing on or after the 18 month anniversary of the issuance date. If the per share market value of the Company's common stock is \$1.50 per share or greater for ten consecutive trading days (subject to adjustment to reflect stock splits, stock dividends, recapitalizations and the like), the Company may require the holder to exercise the warrant and purchase all warrant shares within ten business days of the Company issuing notice to the holder or the warrant will automatically terminate. The warrants do not contain any redemption features.

In June 2008 we agreed to issue, and have since issued, 100,000 shares of common stock to Gemini Strategies, LLC in connection with consulting services related to establishing an environmental based carbon credit program pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the equity instruments issued for these services is approximately \$51,000.

On January 8, 2009, we issued 9,000 and 103,846 shares of the Company's common stock to Design Technica, Inc. and Ellenoff Grossman & Schole, LLP, respectively, in connection with performance of services. The common stock was issued pursuant to exemption from registration under Section 4(2) of the Securities Act. The fair value of the services for which the equity instruments were issued is approximately \$2,700 and \$27,000, respectively.

On March 9, 2009, the Company entered into a subscription agreement with Michael Gostomski pursuant to which Mr. Gostomski purchased 576,923 shares of Company's common stock and a five year warrant to purchase an additional 288,462 shares of common stock at an exercise price of \$.26 per share. The aggregate gross proceeds received by Company for this sale was \$150,000. On the same date, Harris We