LITHIUM TECHNOLOGY CORP Form 10KSB April 17, 2006 Table of Contents

# **UNITED STATES**

# SECURITIES AND EXCHANGE COMMISSION

**WASHINGTON, D.C. 20549** 

FORM 10-KSB

(Mark One)

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

For the fiscal year ended December 31, 2005

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the transition period from \_\_\_\_\_ to \_\_\_\_

Commission File Number 1-10446

# LITHIUM TECHNOLOGY CORPORATION

(Name of Small Business Issuer in Its Charter)

**DELAWARE** (State or Other Jurisdiction of

13-3411148 (I.R.S. Employer

Incorporation or Organization) Identification No.) 5115 CAMPUS DRIVE, PLYMOUTH MEETING, PENNSYLVANIA 19462

(Address of Principal Executive Offices) (Zip Code)

(610) 940-6090

(Issuer s Telephone Number, Including Area Code)

Securities registered under Section 12(b) of the Exchange Act: NONE.

Securities registered under Section 12(g) of the Exchange Act: COMMON STOCK, PAR VALUE, \$0.01

Check whether the issuer is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. "

Note. Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Exchange Act from their obligations under those Sections.

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No "

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will 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-KSB or any amendment to this Form 10-KSB. x

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

Large accelerated filer " an accelerated filer " or a non-accelerated filer "

State issuer s revenues for its most recent fiscal year. \$1,803,000.

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was sold, or the average bid and asked prices of such common equity, as of a specified date within the past 60 days. Approximately \$4,241,330 as of April 6, 2006. The aggregate market value was based upon the mean between the closing bid and asked price for the common stock on April 6, 2006 as quoted by the NASD OTC Electronic Bulletin Board \$0.02.

## (ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Check whether the issuer has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Exchange Act after the distribution of securities under a plan confirmed by a court. Yes "No"

# (APPLICABLE ONLY TO CORPORATE REGISTRANTS)

State the number of shares outstanding of each of the issuer s classes of common equity, as of the latest practicable date: As of April 6, 2006, 366.615.359 shares of common stock.

# DOCUMENTS INCORPORATED BY REFERENCE

If the following documents are incorporated by reference, briefly describe them and identify the part of the Form 10-KSB (e.g., Part I, Part II, etc.) into which the document is incorporated: (1) any annual report to security-holders; (2) any proxy or information statement; and (3) any prospectus filed pursuant to Rule 424(b) or (c) of the Securities Act of 1933 ( Securities Act ). The listed documents should be clearly described for identification purposes (e.g., annual report to security holders for fiscal year ended December 24, 1990). None.

Transitional Small Business Disclosure Format (check one): Yes " No x

# TABLE OF CONTENTS

PART I		
ITEM 1.	DESCRIPTION OF BUSINESS	1
ITEM 2.	DESCRIPTION OF PROPERTY	8
ITEM 3.	LEGAL PROCEEDINGS	8
ITEM 4.	SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS	8
PART II		
ITEM 5.	MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS	9
ITEM 6.	MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	12
ITEM 7.	FINANCIAL STATEMENTS	30
ITEM 8.	CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE	30
ITEM 8A.	CONTROLS AND PROCEDURES	31
PART III		
ITEM 9.	DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT	32
ITEM 10.	EXECUTIVE COMPENSATION	35
ITEM 11.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS	37
ITEM 12.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS	38
ITEM 13.	<u>EXHIBITS</u>	39
ITEM 14.	PRINCIPAL ACCOUNTANT FEES AND SERVICES	43
FINANCIA	AL STATEMENTS	F-1

#### CURRENCY AND EXCHANGE RATES

All monetary amounts contained in this Report are, unless otherwise indicated, expressed in U.S. Dollars. On April 6, 2006, the noon buying rate for Euros as reported by the Federal Reserve Bank of New York was 1.2216 to \$1.00 U.S.

#### FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements. This report contains certain forward-looking statements and information that are based on the beliefs of management as well as assumptions made by and information currently available to management. The statements contained in this Report relating to matters that are not historical facts are forward-looking statements that involve risks and uncertainties, including, but not limited to, the successful commercialization of our batteries, future demand for our products, general economic conditions, government and environmental regulation, competition and customer strategies, technological innovations in the battery industries, changes in our business strategy or development plans, capital deployment, business disruptions, our ability to consummate future financings and other risks and uncertainties, certain of which are beyond our control. Additional factors that could affect the Company's forward-looking statements include, among other things: the restatement of the quarterly financial statements for the first three quarters in the fiscal year ended December 31, 2004; negative reactions from the Company's stockholders, creditors, customer or employees to the results of the review and restatement or delay in providing financial information caused by restatement; the impact and result of any litigation (including private litigation), or of any investigation by the Securities and Exchange Commission or any investigation by any other governmental agency related to the Company; the Company's ability to manage its operations during and after the financial statement restatement process; and the Company's ability to successfully implement internal controls and procedures that remediate any material weakness in controls and ensure timely, effective and accurate financial reporting. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may diff

Forward-looking statements are based on management s current views and assumptions and involve known and unknown risks that could cause actual results, performance or events to differ materially from those expressed or implied in those statements.

## PART I

### ITEM 1. DESCRIPTION OF BUSINESS

## **BUSINESS OVERVIEW**

We are an early production stage company manufacturing rechargeable batteries for custom engineered military and industrial applications using lithium-ion chemistry. Customers are suppliers to the military and industrial concerns requiring safe, durable, high power rechargeable power supplies for their applications and the development of new technology.

During the past two years we have contracted to provide power supplies for underwater propulsion of non-nuclear, manned submarines; for a fleet of lighter than air communication stratellites; for numerous unmanned surveillance vehicles (air, land, and underwater based); for surface to air missiles; for standby power applications; for renewable energy generation sources (windmills); and for hybrid electric vehicles (known as HEVs) for military and civilian uses.

The military, transportation, and stationary power markets continue to demonstrate that lithium-ion is the technology of choice for advanced battery applications placing us at the threshold of a period of significant growth. Our plans call for a three phased strategy to take advantage of the opportunities presented. During Phase I, already underway, we are ramping up sales and production in our existing facilities to reach profitability through funded development contracts and sales of custom engineered power solutions to military/national security and select niche markets. In Phase II, we plan to enter into strategic partnerships to provide for joint sales and production, as well as further access to capital, and to enter target markets in larger scale and acquire production capacity to meet those needs. In Phase III, we expect to look to further extend our reach into market areas by licensing our technology to other mass market manufacturers who operate in areas we might not otherwise access.

### **Table of Contents**

We have two principal centers of operation in Plymouth Meeting, Pennsylvania and in Nordhausen, Germany. The Plymouth Meeting office is also our corporate headquarters. Sales into the U. S. and European markets are managed out of each of the offices. Our strategic business plan incorporates a unified approach by our two locations to overall business strategy, technology research and development; product development, procurement, production, market and competitive analysis, customer contact plans, marketing, public relations/investor relations, sales, distribution, securing future joint venture relationships for manufacturing and distribution, future resource needs, and financial matters.

We have spent nearly \$82 million advancing our technologies, and we are now in a position to manufacture and sell highly reliable, cost-effective advanced lithium-ion rechargeable batteries to our target market segments, to further develop our technology, and to license out our technology.

We have financed our operations since inception primarily through equity and debt financings, loans from shareholders, including loans from Arch Hill Capital N.V. and related parties, loans from silent partners and bank borrowings secured by assets. During 2005, we entered into a \$15 million standby equity distribution agreement with Cornell Capital Partners, L.P. During 2005 we raised approximately \$10.2 million net proceeds in debt and equity financings transactions, including financings under the standby equity distribution agreement. See Management s Discussion and Analysis of Financial Condition and Results of Operations.

We are continuing to seek additional financing initiatives to meet our working capital needs and to complete our product commercialization process. Our operating plan seeks to minimize our capital requirements. Expansion of our production capacity to meet increasing sales and refinement of our manufacturing process and equipment will require additional capital. We expect that operating and production expenses will increase significantly as we continue to ramp up our production and continue our battery technology and develop, produce, sell and license products for commercial applications.

No assurance can be given that we will be successful in completing these or any other financings at the minimum level necessary to fund our working capital or to complete our product or at all. If we are unsuccessful in completing these financings, we will not be able to fund our working capital requirements commercialization or execute our business plan.

## CORPORATE INFORMATION

We combined the operations of Lithium Technology Corporation with GAIA Akkumulatorenwerke GmbH (GAIA), a private lithium polymer battery company headquartered in Nordhausen, Germany, in a share exchange in 2002. In the share exchange Lithium Technology Corporation acquired a 100% interest in GAIA through the acquisition of 100% of the outstanding shares of GAIA Holding B.V., a Netherlands holding company. Subsequent to the share exchange, Arch Hill Capital, NV controls us. Lithium Technology Corporation, GAIA Akkumulatorenwerke GmbH, GAIA Holding B.V. and all of the subsidiaries of Lithium Technology Corporation, GAIA Akkumulatorenwerke GmbH, GAIA Holding B.V are collectively referred to herein as the Company , we or us .

Arch Hill Capital N.V., a private company limited by shares incorporated under the laws of the Netherlands, controls Arch Hill Ventures. In November 2004, Arch Hill Capital and Arch Hill Ventures transferred all LTC securities owned by such entities to Stichting Gemeenschappelijk Bezir GAIA (Stichting GAIA) and Stichting Gemeenschappelijk Bezir LTC (Stichting LTC), which are controlled by Arch Hill Capital.

LTC is a Delaware corporation that was incorporated on December 28, 1995. LTC s predecessor - Lithium Technology Corporation (a Nevada corporation previously named Hope Technologies, Inc.) - merged with and into LTC in a reincorporation merger that became effective on February 8, 1996. The executive office of LTC is located at 5115 Campus Drive, Plymouth Meeting, Pennsylvania 19462, telephone number: (610) 940-6090.

LTC holds 100% of the outstanding shares of GAIA Holding, a Netherlands holding company. GAIA Holding is a private limited liability company incorporated under the laws of the Netherlands on February 2, 1990, with a statutory seat at the Hague (the Netherlands) and office address at Parkweg 2, 2585 JJ, the Hague, the Netherlands.

GAIA Holding is the legal and beneficial owner of all of the issued and outstanding shares of Lithiontech B.V., a Netherlands company limited by shares that was formed on February 8, 1999. Lithiontech has the legal and beneficial ownership of all the issued and outstanding shares of DILO Trading AG, a Switzerland company limited

2

### **Table of Contents**

by shares that was formed on September 11, 1975 and Lithiontech Licensing B.V., a Netherlands company limited by shares that was formed on February 8, 1999. DILO Trading holds patents for which the intellectual property was developed by DILO Trading in collaboration with GAIA. GAIA holds a worldwide, exclusive license for all these patents.

GAIA Holding is the beneficial owner of all of the issued and outstanding shares of GAIA. Legal ownership of the outstanding shares of GAIA are held pursuant to certain Dutch and German trust agreements by two Netherlands entities (Nominal Stockholder) for the risk and account of GAIA Holding. Based on the Dutch and the German trust agreements, the Nominal Stockholders are obliged to transfer the legal ownership of the shares in GAIA without any further payments to GAIA Holding to a third party designated by GAIA Holding on the demand of GAIA Holding. Pursuant to the trust agreements, GAIA Holding has the right to vote the shares of GAIA held by the Nominal Stockholders.

LTC and GAIA Holding, Arch Hill Ventures and the Nominal Stockholders are parties to an agreement which provides that without LTC s prior written consent, GAIA Holding may not directly or indirectly transfer or instruct any party to transfer the legal ownership of the shares of GAIA held by the Nominal Stockholders to any party other than to GAIA Holding and that upon LTC s written direction, GAIA Holding will instruct the Nominal Stockholders to transfer the legal ownership of the shares of GAIA held by the Nominal Stockholders to GAIA Holding for no payment. The agreement further provides that at such time as the parties determine that there would no longer be any possible adverse tax effect as a result of the transfer of the GAIA shares to GAIA Holding, then the legal ownership of the GAIA shares held by the Nominal Stockholders shall be transferred to GAIA Holding without any payment.

GAIA is a private limited liability company organized under German law on April 4, 1996. GAIA is located at Montaniastrasse 17, D-99734 Nordhausen/Thuringia, Germany, telephone number: 011 49 3631 616 70.

LTC holds 100% of the outstanding shares of Lithion Corporation, a Pennsylvania corporation that was incorporated on June 3, 1988.

Information contained on the LTC web site or GAIA web site (www.lithiumtech.com and www.gaia-akku.com) does not constitute part of this Report.

## DEVELOPMENT AND COMMERCIALIZATION PLAN

## General

We are engaged in continuing contract development and small volume production, in both the United States and Germany, of large format lithium-ion rechargeable batteries used as power sources in advanced applications in the national security, transportation and stationary power markets. We have moved from a development and pilot-line production company to a small production business with our lithium-ion rechargeable batteries. Lithium ion battery acceptance and usage continues to grow in emerging advanced applications in our target markets. With the continuing interest in higher energy density, lighter weight, smaller volume, longer operational life and greater cost effectiveness, lithium batteries are the technology of choice with emerging applications in these markets.

Our mission is to become a leading manufacturer of large format rechargeable lithium power solutions for advanced national security, transportation and stationary power applications. Our business model also includes the licensing of our technology and other collaborative efforts with third parties.

We believe that our large format, flat and cylindrical cell designs provide a special advantage for military and national security, transportation and stationary power applications. The target markets continue to demonstrate that lithium-ion is the technology of choice for advanced battery applications placing us at the threshold of a period of significant growth.

Over the past two years, we have successfully focused on producing larger, more consistent runs of standardized cells. In the last year, we have been successful in increasing production, improving quality and yields and reducing production costs. We have established several standardized modular battery assembly designs which facilitate the construction of custom batteries. We have expanded our custom battery design activities and we continue to receive favorable feedback from field use and testing by our customers.

### **Table of Contents**

As a result of our involvement with the military market over the past two years, we have received orders for various prototype batteries and small production runs of both customized cells and batteries from customers. As a result of our continuing involvement with the military market, we have interacted with customers that are actively pursuing new battery technologies. We have been able to apply our battery technology for use with new high tech systems including robots, advanced weapons, launch vehicles and unmanned underwater vehicles (known as UUVs). Several companies that were involved within the beta test stage in 2004 for these military applications continue to order our battery technology.

We continue to engage in high tech Small Business Innovative Research Contracts (SBIRs). We currently have SBIR contracts or sub-contracts in place which are expected to generate revenues in 2006 of approximately \$1.4 million in the aggregate. We have continued our collaborative relationships for the development of the next generation cathode materials. We are a subcontractor on a US Army Tank-Automotive Research, Development and Engineering Center (known as TARDEC) work directive for Future Combat Systems Manned Ground Vehicle HEV and a NASA contract for Advanced Batteries for Space . We are a subcontractor to a builder of unmanned underwater vehicles on a contract for Advanced Pressure Tolerant Batteries. We are also working on SBIR contracts for Lithium Batteries for Strategic Missile Flight Testing and Advanced Lithium Ion Battery Manufacturing. We plan to continue to bid on new SBIR contracts and commercial contracts going forward.

Outside the U.S., we entered into a development contract for large submarine batteries from Thyssen-Krupp, the world s largest builder of diesel-electric submarines. We also entered into a contract for the development of a battery for a small submarine for the Navy of a friendly nation. During the fourth quarter of 2005, we received orders within our operation in Germany for several large batteries to be used in military applications.

In the transportation market, sales of hybrid-electric vehicles (known as HEVs) continue to increase. While sales to U.S. automakers have been slow, we have sold several HEV prototype batteries and modules for evaluation in Europe. GAIA is working with a consortium of five European Automakers to evaluate lithium technology for hybrid electrical vehicles. In addition, we have been negotiating with a small electric vehicle (EV)/HEV manufacturer. Building on the success of our battery technology and application at Penn State University in the 2004 Ford Future Truck Competition, we have generated additional orders from Penn State and the University of California - Davis for the Chevrolet Equinox competition in 2006. In addition, we have sold our batteries for use in solar car competitions.

During the first quarter of 2006, GAIA delivered a lithium-ion battery for a hybrid vehicle that is being developed by UK based automotive technology specialists Zytek Systems as part of the Energy Saving Trust s Ultra-Low Carbon Car Challenge (known as ULCCC). In March 2005, Zytek was awarded grant funding from the Energy Saving Trust for the second phase of their ULCCC project to develop a new high efficiency, dual mode hybrid vehicle. The vehicle is based on the new Smart forfour and will utilize a hybrid power train based on 1500cc, 3-cylinder turbo charged diesel engine coupled to two high-efficiency permanent-magnet electric motors. Zytek has ordered three lithium-ion batteries each with output of 288 volts, a capacity of 7.5 amp hours (or about 2.2 kilowatt hours of energy) and with a capability to deliver 25 kilowatts of power. These batteries can be charged by either the internal combustible engine, by regenerative breaking, or by household mains (plug-in hybrid), and will have a modest all-electric range. The first battery has been installed in the vehicle and road tests will commence shortly. The remaining two batteries will be delivered in April 2006. LTC, together with Zytek and I+ME, have jointly developed an improved version of the Battery Management System to include additional safety features and to control the charging of the battery from the mains. The Battery Management System will also communicate with the vehicles energy management system for better efficiency and control.

In the stationary power market we executed a contract with Exide Batteries to develop and market a rack-mounted lithium ion battery for critical Universal Power Supply applications. In addition, we supplied prototype batteries for backup control systems for wind generators in Europe. During the first quarter of 2006, GAIA received a \$1,000,000 order for the development of lithium-ion batteries for a solar energy storage system. The initial payment of the \$1,000,000 is for the first phase of a \$5,000,000 milestone based development program which we expect to complete over the next two to three years.

## **Products**

We manufacture and sell the GAIA® product line of large, high power hermetically sealed rechargeable lithium-ion cells and batteries. Our product portfolio includes large format, high power cells ranging from 4 to 45 Amp-hours, with discharge capabilities to 100C designed for HEV and military applications, and high energy cells from 5 to 60

4

#### **Table of Contents**

Amp-hours for various applications. Our products include large batteries from 10 times the capacity of a standard laptop computer battery to 100,000 times greater.

We produce high power cells designed for HEVs and military applications that can discharge hundreds of amps in times as short as a few minutes, and high capacity cells for applications such as back-up power and remote standby installations. Cells are manufactured in both cylindrical and flat form and employ proprietary extrusion, design and assembly technology. We manufacture a variety of standard cells that are assembled into custom large batteries complete with electronics (battery management systems) and electronics to communicate with other components of the system for performance monitoring.

We specialize in working with the customer to engineer solutions using standardized cells in customized configurations. Over the past year, as we have moved to the production stage in Nordhausen, we have succeeded in producing long, consistent runs of standardized cells. We have also established a number of standardized modular battery assembly designs which facilitate the customized construction of batteries.

## **Lithium Ion Battery Market**

The lithium ion battery market is rapidly expanding and maturing. Lithium ion batteries are becoming more widely known and accepted, resulting in accelerating market growth. We are benefiting from this expansion of new product applications by being able to be involved in the initial design of these applications. This market expansion is also driving material suppliers to develop higher energy, lower cost and safer raw materials. Increasing volumes of production are being shifted to China and this continues to put downward pressure on pricing. Some of our Asian competitors have introduced high power cells and large formats which emphasizes our need to ramp up quickly and provide custom solutions to capture market share.

#### **Our Target Markets**

We are leveraging our expertise in high power and large battery assemblies to commercialize advanced lithium batteries as a new power source in the military and national security systems, transportation and stationary power markets with a particular focus on the U.S. and European geographic market segments where the customers prefer a domestic supplier. Our sales and marketing efforts are focused on markets where we can obtain a premium by being a western hemisphere, domestic supplier, providing a better product and better service and co-developing custom solutions for new emerging high tech products. Our business plan does not incorporate mass commercial markets in the immediate future from our existing facilities. Entry into these large volume markets is projected though the licensing of our technology and collaborative efforts with third parties.

### **National Security Market**

National Security/Military applications require flexibility in design as the applications encompass a wide range of power output, broad operating temperatures, lower weight and thousands of recharge cycles. Performance is more important than price in this market. We have found our lithium ion batteries displacing silver-zinc batteries. Over the past year, as we have provided the market with high power batteries, we have also seen new applications emerge in areas such as pulsed defensive weapons.

### **Transportation Market**

Transportation applications require rapid charge/discharge rates and long life in safe, durable high power storage for HEV and fuel cell powered vehicles. Military and heavy duty vehicle original equipment manufacturers have been early adopters of new technology and have taken the lead in the use of large-format lithium-ion batteries. In the past year we have seen growth in small niches such as all-terrain vehicles, e-bikes and other areas. We also see certain European cities moving towards banning gasoline powered vehicles in the city centers as prototype dual mode hybrid vehicles appear.

#### **Stationary Power Market**

Stationary Power applications require high-reliability power for telecommunications, computers and other mission critical applications. We believe this presents a very large potential market. Growing dependence on electrical power worldwide drives the demand for high quality and readily available back-up power. We have also found niches developing in the alternative energy markets.

### **Strategy for Growth**

We envision a three phase evolution to achieving our mission of being a leader in rechargeable lithium-ion battery solutions for high power applications:

In Phase I, the objective is to ramp up sales and production in our existing facilities to reach profitability through funded development contracts and sales of custom engineered power solutions to military/national security and select niche markets. We are well along in this phase. Operating losses and capital expenditures during Phase I may be funded through a variety of financing sources, including under the standby equity distribution agreement with Cornell Capital.

In Phase II, we expect to expand as well as enter new market areas primarily through the establishment of strategic partnerships. These partnerships are expected to bring joint development, joint engineering, and joint sales. Phase II is already in progress. If successful, we will have significant partners in military, transportation, and stationary power markets. We believe that each of these partnerships will bring significant demand for product and access to capital to fund the increases in production capacity and working capital. In order to meet the considerable production demands of these partnerships, we intend to expand production capacity significantly through the acquisition of an additional manufacturing facility.

<u>In Phase III</u>, we will look to further extend our reach into market areas by licensing our technology to other high volume, mass market manufacturers who operate in areas we might not otherwise access.

#### COMPETITION

Competition in the battery industry is, and is expected to remain, intense. The lithium ion battery market is rapidly expanding and maturing. Lithium ion batteries are becoming more widely known and accepted resulting in accelerating market growth. We are benefiting from this expansion of new product applications by being able to be involved in the initial design of these applications rather than competing directly with low cost mass-market 18650 cells from Asia. This market expansion is also driving material suppliers to develop higher energy, lower cost and safer products. Increasing volumes of production are being shifted to China and this continues to put downward pressure on pricing. Some of our Asian competitors have introduced high power cells and large formats which emphasizes our need to ramp up quickly and provide custom solutions to capture market share. Our sales and marketing efforts are focused on markets where we can obtain a premium by being a domestic supplier, providing a better product and better service and co-developing custom solutions for new emerging high tech products. Our business plan does not incorporate mass commercial markets in the immediate future from our existing facilities. Entry into these large volume markets is projected though the licensing of our technology and collaborative efforts with third parties.

In our target markets of transportation and stationary power systems, the principal competitive technologies are currently lead acid and nickel-metal hydride. We believe that lithium-ion and lithium polymer batteries will enter specific niches of this segment of the rechargeable battery market in the near future. We believe that lithium-ion and lithium polymer batteries will compete in the HEV market which requires constant fast cycle charge and discharge, high rate regenerative braking and operation over a wide range of temperatures. We also believe that there will be certain limited niches in the stationary power market where new products will be able to compete based upon superior performance and energy density.

The rechargeable battery industry consists of major domestic and international companies, many of which have financial, technical, marketing, sales, manufacturing, distribution and other resources substantially greater than ours. We compete against companies producing lithium batteries as well as other primary and rechargeable battery technologies. Our primary competitors in the national security market are: Saft, Eagle-Pitcher, The Yardney Technical Products, Inc. and Ultralife Batteries, Inc. Our primary competitors in the Transportation Market are: Johnson Controls, Inc., Exide Technologies, Saft, Panasonic EV Energy Co., Ltd., The Sanyo Group of Companies, Delphi Automotive Systems, and Trojan Battery Company. Our primary competitors in the stationary power market are EnerSys, Inc., C&D Technologies, Inc. and Avestor.

## INTELLECTUAL PROPERTY

As of April 6, 2006, 29 patents have been issued to LTC and LTC has four patent applications pending in the U.S. LTC also pursues foreign patent protection in countries of interest. LTC has been granted three foreign patents and has seven patent applications pending in foreign countries. DILO Trading holds patents for which the intellectual property was developed by DILO Trading in collaboration with GAIA. DILO Trading has granted GAIA the right to

### **Table of Contents**

use these patents. As of April 6, 2006, five patents have been issued to DILO Trading and DILO Trading has 44 patent applications pending in Europe. Although we believe that the pending patent applications will be granted, no assurance to this effect can be given.

We also have proprietary knowledge that is in the patent disclosure stage or that we protect as trade secrets. Our early patents relate to materials and construction for lightweight solid-state rechargeable batteries. Our later patents and applications relate to improvements to the technology contained in the first patents or to other key aspects of rechargeable lithium battery technology. One of our early patents expired in 2005. Our next patent expiration date is 2008. There is no current or, to our knowledge, threatened litigation regarding our patents.

We also rely on unpatented proprietary information to maintain and develop our commercial position. Although we seek to protect our proprietary information, there can be no assurance that others will not either develop independently the same or similar information or obtain access to our proprietary information. In addition, there can be no assurance that we would prevail if we were to challenge intellectual property rights claimed by third parties that we believed infringed upon our rights or that third parties will not successfully assert infringement claims against us in the future.

Our employees are required to enter into agreements providing for confidentiality and assignment of rights to inventions made by them while employed by us. There can be no assurance that these agreements will be enforceable by us.

### **RAW MATERIALS**

We purchase various raw materials for use in our batteries. Certain materials used in our products are available only from a limited number of sources. The industry currently has sufficient capacity to meet our needs. There is no assurance, however, that our sources will remain available or the currently adequate supply of raw materials will continue.

#### RESEARCH AND DEVELOPMENT

We devote substantial resources to technology development activities related to the development of our battery products. Our research has focused upon bringing existing available technology to viable commercial production for specific applications. The majority of our effort is directed towards product quality, process yield improvement, identifying alternative raw materials and supplies for use in our batteries, and cost reduction. We seek evolutionary improvements for cell and battery design, including controls. We have built in-house expertise in electronics and have developed our own proprietary battery management system for use in our custom built batteries. We evaluate new materials, which are not direct substitutes, for use in our batteries, but offer advantages such as cost, safety and performance. One such material which results in cells that are intrinsically safe from overcharge or short circuit is now in beta test. Such a development is critical to the development of the automotive and consumer markets.

## **EMPLOYEES**

As of April 6, 2006, we employed a total of 17 full-time employees at LTC, and 54 full-time employees at GAIA. None of our employees at the LTC or GAIA are represented by a labor union. We consider our employee relations to be good.

## GOVERNMENT REGULATION, SAFETY, ENVIRONMENTAL COMPLIANCE

We are subject to the requirements of U.S. federal, state, local and non-U.S. environmental and occupational safety and health laws and regulations. These include laws regulating air emissions, water discharge and waste management. Although it is our intent to comply with all such requirements and regulations, there can be no assurance that we are at all times in compliance. Environmental requirements are complex, change frequently and have tended to become more stringent over time. Accordingly, there can be no assurance that these requirements will not change or become more stringent in the future.

As with any battery, our lithium-ion batteries can short when not handled properly. Due to the high energy and power density of lithium-ion batteries, a short can cause rapid heat buildup. Under extreme circumstances, this could conceivably cause a fire. This is most likely to occur during the formation and/or testing phase of our process. We incorporate safety procedures in our battery testing lab to minimize safety risks, although there can be no assurance

### **Table of Contents**

that an accident in any part of our facilities where charged batteries are handled will not occur. Any such accident could require an internal investigation by our technical staff, causing delays in further development and manufacturing of our products, which could adversely affect our operations and financial condition. Likewise any battery that is abused by a customer, could, under extreme circumstances conceivably cause a fire. We employ all appropriate design and electronic protections. We also carry product liability insurance.

Our manufacturing process incorporates pulverized solids, which can be toxic to employees when allowed to become airborne in high concentrations. We have incorporated safety controls and procedures into our pilot line manufacturing processes designed to maximize the safety of our employees and neighbors. Any related incident, including fire or personnel exposure to toxic substances, could result in significant production delays or claims for damages resulting from injuries, which could adversely affect our operations and financial condition.

The U.S. Department of Transportation and the International Air Transport Association regulate the shipment of lithium ion batteries. A permit is required to transport both our lithium cells and custom engineered batteries from our manufacturing facilities. No assurance can be given that we will not encounter any difficulties in complying with future or amended U.S. Department of Transportation or International Air Transport Association regulations or regulations developed by other agencies such as the International Civil Aviation Organization or International Maritime Dangerous Goods.

#### ITEM 2. DESCRIPTION OF PROPERTY

LTC leases a 12,400 square foot research and development facility at 5115 Campus Drive in Plymouth Meeting, Pennsylvania. This facility is leased pursuant to a Lease Agreement with PMP Whitemarsh Associates dated July 22, 1994, as amended. The facility is being leased under a one-year lease extension that commenced on April 1, 2006 and ends on March 31, 2007. The base annual rent under the lease is \$156,000. This facility has sufficient space to meet our near-term needs in the United States. At the facility, we have a semiautomatic cell packaging and filling machine, coating equipment and lamination equipment, pieces of equipment critical to our ability to produce pilot quantities of batteries and to specify expansion and upgrading of continuous flow manufacture. Our corporate headquarters are located at the Plymouth Meeting, Pennsylvania facility.

GAIA owns a 64,000 square foot renovated research and development facility in the city of Nordhausen, Thuringia Germany. This facility has sufficient space to meet our near-term needs in Europe and can be upgraded to increase production capacity from 1,000 to 3,600 watt-hours per day. The facilities also include laboratory, quality control and offices for the European sales and management teams.

## ITEM 3. LEGAL PROCEEDINGS

We are not a party to any material legal proceedings.

### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of our security holders during the fourth quarter of the fiscal year ended December 31, 2005.

8

#### PART II

# ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS MARKET INFORMATION

Our common stock is traded in the over-the-counter market, and bid and asked prices in the common stock are quoted on the OTC Electronic Bulletin Board under the symbol LTHU. The following table sets forth certain information with respect to the high and low bid prices for our common stock as of the close of each of the four calendar quarters of 2005 and 2004. Such quotations reflect inter-dealer prices, without retail mark-ups, mark-downs or commissions, and may not represent actual transactions.

	Bid Prices for C	<b>Bid Prices for Common Stock</b>	
	High	Low	
2005			
Fourth Quarter	0.0900	0.0330	
Third Quarter	0.1120	0.0290	
Second Quarter	0.1240	0.0320	
First Quarter	0.5000	0.0710	
2004			
Fourth Quarter	0.4500	0.1500	
Third Quarter	1.6500	0.3800	
Second Quarter	2.9500	1.0100	
First Quarter	3.2500	1.8500	

On April 6, 2006, the last sale price quoted on the OTC Bulletin Board was \$0.0218. As of April 6, 2006, there were approximately 1,055 holders of record of our common stock.

## DIVIDENDS

We have never paid cash dividends on our common stock and do not presently anticipate paying cash dividends in the foreseeable future. It is anticipated that earnings, if any, will be retained for use in our business for an indefinite period. Payments of dividends in the future, if any, will depend on, among other things, our ability to generate earnings, our need for capital, and our financial condition. Our ability to pay dividends is limited by applicable state law. Declaration of dividends in the future will remain within the discretion of our Board of Directors, which will review the dividend policy from time to time.

### SECURITIES AUTHORIZED FOR ISSUANCE UNDER

# **EQUITY COMPENSATION PLANS**

The following table sets forth information as to securities issuable upon exercise of outstanding options and warrants and available for issuance under equity compensations plans as of December 31, 2005.

Number of securities to be issued upon exercise of outstanding options, warrants and rights (a) quity compensation plans approved by		outstanding and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)		Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
security holders		0		N/A	N/A
Equity compensation plans not approved by security holders	Options:				
	1994 Plan-	42,160	\$	5.20	$0_{(1)}$
	Directors Plan-	6,168	\$	5.54	$0_{(1)}$
	1998 Plan-	41,680	\$	5.65	0(1)
	2002 Plan-	41,250	\$	3.86	308,750
	Warrants:				
		10,000	\$	2.20	0
		150,000	\$	3.70	0
		4,532,836	\$	0.05	0
		948,838	\$	0.02	0
		35,000	\$	1.37	0
		100,000	\$	1.91	0
		200,000	\$	.06	0
		596,000	\$	.05	0
		10,000,000	\$	.06	0
		5,000,000	\$	.07	0
		5,000,000	\$	.10	0
		2,000,000	\$	.03	0
Total		28,703,932	\$	0.12	308,750

The following stock option and incentive plans are the plans of LTC and not of GAIA. GAIA does not have any stock option or incentive plans.

# 1994 STOCK INCENTIVE PLAN

LTC s Board of Directors adopted the 1994 Stock Incentive Plan in February 1994. The 1994 Stock Plan was terminated as of December 31, 2002. All options outstanding under the 1994 Stock Plan were 100% vested in February 2000. Vested options are exercisable for up to sixty months after the date of termination of the grantees employment or association with LTC.

## DIRECTORS STOCK OPTION PLAN

In August 1995, the Board of Directors of LTC adopted the Directors Stock Option Plan. The Directors Plan was terminated as of December 31, 2002. All options outstanding under the Directors Plan were 100% vested in February 2000. Upon the termination of a participants association

<sup>(1)</sup> Option Plan terminated as of December 31, 2002.

with LTC, options granted will remain exercisable for a period of three months or until the state expiration of the stock option, if earlier.

10

#### 1998 STOCK INCENTIVE PLAN

LTC s Board of Directors adopted the 1998 Stock Incentive Plan in December 1998. The 1998 Plan was terminated as of December 31, 2002. All options outstanding under the 1998 Plan were 100% vested in February 2000. Vested options are exercisable for up to sixty months after the date of termination of the grantee s employment or association with LTC.

#### 2002 STOCK INCENTIVE PLAN

LTC s Board of Directors adopted the 2002 Stock Incentive Plan in January 2002. The 2002 Plan terminates in 2012. A total of 350,000 shares of common stock are reserved and available for grant. The exercise price of an option granted under the 2002 Plan will not be less than the fair market value of LTC s common stock on the date of grant; however, for any non-qualified stock option the option price per share of common stock, may alternatively be fixed at any price deemed to be fair and reasonable as of the date of the grant. Options granted that are not vested will be cancelled immediately upon termination of the grantee s employment or association with LTC, except in certain situations such as retirement, death or disability. Vested options are exercisable for up to sixty months upon termination of the grantee s employment or association with LTC.

#### WARRANTS

Warrants issued under equity compensation plans, which were outstanding as of December 31, 2005, include the following.

The Company issued to a consultant warrants to purchase 10,000 shares of Company common stock with an exercise price of \$2.20. The warrants expire on February 20, 2007.

The Company issued to an investment banker and affiliated persons warrants to purchase 150,000 shares of Company common stock with an exercise price of \$3.70. The warrants expire on December 13, 2007.

The Company issued to the finder and affiliated persons in the January 2004 debenture financing warrants to purchase 4,532,836 shares of Company common stock at exercise prices ranging from \$0.034 to \$0.660 per share. The warrants expire on January 20, 2009.

The Company issued to the placement agent in the A and B Unit financing and affiliated persons warrants to purchase 948,838 shares of Company common stock at exercise prices ranging from \$0.165 to \$0.693 per share. The warrants expire on December 31, 2008.

The Company issued to a consultant warrants to purchase 35,000 shares of Company common stock with an exercise price of \$1.37. The warrants expire on December 1, 2008.

The Company issued to a consultant warrants to purchase 100,000 shares of Company common stock with an exercise price of \$1.91. The warrants expire on June 1, 2009.

The Company issued to a consultant 200,000 warrants to purchase shares of common stock with an exercise price of \$0.064. The warrants expire on May 6, 2009.

The Company issued to the placement agent in the 2005 unit financing and affiliated persons 596,000 warrants to purchase shares of common stock with an exercise price of \$0.055. The warrants expire on August 10, 2008.

The Company issued to Cornell Capital in connection with a debenture financing, 20,000,000 warrants to purchase shares of common stock with the following original exercise prices: 10,000,000 with an exercise price of \$.06, 5,000,000 with an exercise price of \$.07 and 5,000,000 with an exercise price of \$0.10. The exercise prices and amount of warrants were amended subsequent to December 31, 2005. The warrants expire on October 7, 2010.

The Company issued to the investor in the December 2005 bridge financing warrants to purchase 2,000,000 shares of our common stock with an exercise price of \$.03. The warrants expire December 6, 2010.

### SECURITIES ISSUED DURING QUARTER ENDED DECEMBER 31, 2005

During the quarter ended December 31, 2005, we entered into a debenture financing transaction with Cornell Capital, a debt exchange with Arch Hill Capital and Arch Hill Ventures, and bridge financing transactions with Portfolio Lenders II, LLC and Arch Hill Capital. These financing transactions are described below in Management's Discussion and Analysis of Financial Condition and Results of Operations. Issuance of the securities in each of the transactions was exempt from registration pursuant to Section 4(2) of the Securities Act. The underlying securities were issued to accredited investors in private transactions without the use of any form of general solicitation or advertising. The underlying securities are restricted securities subject to applicable limitations on resale.

### ITEM 6. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read together with the Consolidated Financial Statements and the accompanying notes to the Consolidated Financial Statements included elsewhere in this Report.

#### **GENERAL**

We are engaged in continuing contract development and limited volume production, in both the United States and Germany, of large format lithium-ion rechargeable batteries used as power sources in advanced applications in the national security, transportation and stationary power markets. We have moved from a development and pilot-line production company to a small production business with our lithium-ion rechargeable batteries.

# LIQUIDITY AND FINANCIAL CONDITION

## **GENERAL**

At December 31, 2005, cash and cash equivalents were \$46,000. Total liabilities at December 31, 2005 were \$15,285,000 consisting of current liabilities in the aggregate amount of \$8,065,000 and long-term liabilities in the amount of \$7,220,000. At December 31, 2005, assets included \$569,000 in inventories, property and equipment, net, of \$5,419,000, net intangibles of \$7,378,000, and prepaid expenses and other assets of \$689,000. As of December 31, 2005, our working capital deficit was \$6,721,000 as compared to \$3,987,000 at December 31, 2004. We expect to incur substantial operating losses as we continue our commercialization efforts.

Our debt at December 31, 2005 was as follows:

	December 31, 2005
March 2005 12% Convertible	\$ 2,000,000
8% Convertible Notes	47,000
Derivative Liability	1,000
Bridge Notes	385,000
October 2005 8% Debenture	707,000
Portfolio Lenders Convertible Note	316,000
Loans from Financial Institutions	1,629,000
Subordinated Loans from related party	3,387,000
Silent Partner Loans	2,289,000
Total Debt	\$ 10,761,000
Less: Current maturities	(3,541,000)
Total Long-term debt	\$ 7,220,000

12

For more detailed information on long-term liabilities, see Note 6 to our financial statements contained herein.

#### FINANCING TRANSACTIONS

We have financed our operations since inception primarily through equity and debt financings, loans from shareholders and other related parties, loans from silent partners and bank borrowings secured by assets. During 2005, we entered into a \$15 million standby equity distribution agreement with Cornell Capital Partners, L.P. In addition, we also raised approximately \$10.2 million net proceeds in debt and equity financings transactions, including financings under the standby equity distribution agreement in 2005.

We have recently entered into a number of financing transactions and are continuing to seek other financing initiatives. We will need to raise additional capital to meet our working capital needs and to complete our product commercialization process. Such capital is expected to come from the sale of securities, including the sale of common stock under the standby equity distribution agreement described below. No assurances can be given that such financing will be available in sufficient amounts or at all. If such financing is not available there can be no assurance that Arch Hill Capital will provide any further funding under the bridge financing agreement described below.

The following is a general description of our most recent financing transactions. See also the Notes to Consolidated Financial Statements included with this Report.

### PORTFOLIO LENDERS BRIDGE FINANCING

On December 6, 2005, we entered into a Bridge Loan Agreement pursuant to which we issued convertible notes in the principal amount of \$400,000 (the Notes ) to Portfolio Lenders II, LLC (the Noteholder ) in a private placement. The Notes are convertible at the option of the Noteholder any time up to maturity at a conversion price equal to \$0.50 per share. The Notes bear interest at 15% per annum, which was prepaid by us on the closing date. As of December 31, 2005, there was \$400,000 in principal outstanding under the Notes.

The Notes are repayable upon the earliest to occur of the following: (1) (a) \$200,000 shall be repaid by March 6, 2006; and (b) \$200,000 shall be repaid by June 14, 2006; or (2) (a) \$200,000 shall be repaid within two business days of the closing date of an investment of at least \$3 million in us; and (b) \$200,000 shall be repaid on the earliest of two business days of the closing date of a second investment of at least \$2 million in us (each of the foregoing, a Repayment Date ). We have repaid the \$200,000 which was due on March 6, 2006.

In connection with the issuance of the Notes, we entered into an escrow agreement under which put notices under the standby equity distribution agreement were deposited and certain monies received under that agreement will be received and forwarded to the Noteholder. As additional security, we have agreed to pledge to the Noteholder 14,000,000 shares of our common stock once we have sufficient shares of common stock available for issuance.

Commissions to the Noteholder in connection with this transaction included 5% cash compensation in the form of a discount to the purchase price of the notes, or \$20,000, and five-year warrants to purchase 2,000,000 shares of our common stock at \$0.03 per share.

We have agreed to prepare and file a registration statement under the Securities Act of 1933, as amended, that includes the shares of common stock issuable upon conversion of the notes and upon exercise of the warrants and to ensure that such Registration Statement is declared effective by May 5, 2006.

## ARCH HILL BRIDGE FINANCING

Arch Hill Capital and LTC entered into a bridge financing agreement in December 2001 and Arch Hill Ventures and GAIA entered into a bridge financing agreement in December 2000. At various times during 2005, Arch Hill Capital advanced a total of \$385,000 to LTC under the bridge financing agreement. As of December 31, 2005, \$385,000 of advances were outstanding under the Arch Hill Capital bridge financing agreement.

### OCTOBER 2005 8% CONVERTIBLE DEBENTURE (CORNELL CAPITAL)

On October 7, 2005, we entered into a securities purchase agreement with Cornell Capital pursuant to which we issued a convertible debenture in the principal amount of \$3,000,000, with an original maturity date of October 1, 2006 and a conversion price of \$0.06. The debenture was repayable in ten equal monthly installments with accrued

13

#### **Table of Contents**

interest at 8% per year commencing January 1, 2006 and ending October 1, 2006. Commissions to Cornell Capital in connection with this transaction included 7.5% cash compensation in the form of a discount to the purchase price of the debentures, or \$225,000, and five-year warrants to purchase 20,000,000 shares of common stock at the following exercise prices: 10,000,000 at \$0.06 per share, 5,000,000 at \$0.07 per share and 5,000,000 at \$0.10 per share (the Warrants ). We also paid structuring fees to Yorkville Advisors Management of \$10,000. As of December 31, 2005, there was \$3,000,000 outstanding under the debenture. The convertible debenture was issued at a \$3,000,000 discount due to the fair value ascribed to the detachable warrants utilizing the Black Scholes method and the related beneficial conversion feature. The discount is being amortized as financing costs over the one year life of the debenture.

We entered into a pledge and escrow agreement pursuant to which we agreed to issue to Cornell Capital 250,000,000 shares of common stock in the event of default under the debenture as security for our obligations thereunder. We also granted Cornell Capital a security interest in the assets of LTC. In the event of default, Cornell Capital, in addition to any other remedies, may convert any or all of the outstanding principal of the debentures into common stock at a fixed conversion price equal to \$0.0128 per share.

On January 31, 2006, we entered into an amendment of the debenture (the First Amendment ) which provided that all payments of principal and accrued interest on the Debenture otherwise due on or before March 15, 2006 were due on March 15, 2006. The First Amendment also provided that in the event we close on any debt or equity financing, we must use fifty percent of the proceeds of the new financing (net of placement fees and commissions) to repay principal and interest outstanding under the Debenture. The First Amendment further provided that in the event we did not repay all outstanding principal and accrued interest on the Debenture on March 15, 2006, (i) we must repay \$900,000 of principal and accrued interest on March 15, 2006 and repay the balance of the outstanding principal and interest on the Debenture over seven equal payments commencing April 1, 2006 until October 1, 2006, and (ii) the exercise price of the 20,000,000 Warrants would be reduced to \$0.0128 on a pro-rata basis in relation to the amount of principal of the Debenture not repaid by us as of March 15, 2006. The First Amendment also provided that at any time prior to March 15, 2006 we could at our option with three business days advance written notice redeem a portion or all amounts outstanding under the Debenture in an amount equal to the principal amount outstanding and accrued interest being redeemed. No redemption premium was due by us for a redemption of the Debenture prior to March 15, 2006. The Debenture was not convertible from January 31, 2006 through March 15, 2006 provided we were current on our payment obligations under the Debenture. As of March 15, 2006, \$3,000,000 in principal plus accrued interest was outstanding on the Debenture.

In the First Amendment we amended the provision that was contained in the registration rights agreement entered into in connection with the debenture modifying the date by when we must file a registration statement covering the shares of our common stock issuable upon conversion of the debenture and upon exercise of the warrants with the Securities and Exchange Commission by January 6, 2006, and to provide that such registration statement must be filed on or before February 10, 2006. We filed such registration statement on February 3, 2006.

In consideration of the First Amendment of the debenture and related agreements, we paid Cornell Capital a fee of \$100,000.

On March 21, 2006, we entered into a second amendment with Cornell Capital (the Second Amendment ) whereby we amended the following provisions of the Debenture. All payments of principal and accrued interest on the Debenture otherwise due on or before March 15, 2006 are due on June 15, 2006. In the event we close on any debt or equity financing we must use fifty percent (50%) of the proceeds of the new financing (net of placement fees and commissions) to repay principal and interest outstanding under the Debenture. In the event we do not repay all outstanding principal and accrued interest on the Debenture on June 15, 2006, we must repay \$1,800,000 of principal and accrued interest on June 15, 2006 and repay the balance of the outstanding principal and interest on the Debenture over four equal monthly payments commencing July 1, 2006 until October 1, 2006.

The Second Amendment further provides that Debentures are convertible from March 21, 2006 with four business days advance written notice (the Advance Conversion Notice) after June 15, 2006, the Debentures are convertible without delivery of an Advance Conversion Notice. The conversion price of the Debenture is reduced from \$0.06 to \$0.03 and per share provided, however, if there is an Event of Default under the Debenture the Conversion Price will be reduced to \$0.0128. At any time from March 21, 2006, including after receipt of an Advance Conversion Notice and before the expiration of the four business day advance notice period, we may, at our option, redeem a portion or all amounts outstanding under the Debenture in an amount equal to the principal amount outstanding and accrued interest being redeemed and a payment of a premium by us equal to fifteen percent (15%) of the redemption

Table of Contents 23

14

#### **Table of Contents**

amount subject to two (2) business days advanced written notice for any redemption on or before June 15, 2006 and subject to three (3) business days advanced written notice for any redemption after June 15, 2006.

In the Second Amendment, we amended the Warrants as follows. The Warrants will be exercisable to purchase an additional 20,000,000 shares of common stock for a total of 40,000,000 shares. The exercise price of the 40,000,000 Warrant Shares is \$0.03 per share, provided, however that in the event we do not repay all outstanding principal and accrued interest on the Debenture on June 15, 2006, then on June 15, 2006 the exercise price of the Warrants will be reduced to \$0.0128 on a pro-rata basis in relation to the amount of principal of the Debenture not repaid by us as of June 15, 2006. (By way of example, if \$1,500,000 in principal of the Debenture has not been repaid by us by June 15, 2006, the exercise price of 50% of the Warrants shall be reduced to \$0.0128 per share and the exercise price of the remaining 50% of the Warrants shall remain at \$0.03 per share.)

In the Second Amendment we amended the provision that was contained in the Registration Rights Agreement, as amended, entered into in connection with the Debenture. We must file an amendment to the registration statement covering the shares of our common stock issuable upon conversion of the Debenture and Warrants with the Securities and Exchange Commission by April 20, 2006.

## STANDBY EQUITY DISTRIBUTION AGREEMENT (CORNELL CAPITAL)

On March 11, 2005, we entered into a standby equity distribution agreement with Cornell Capital pursuant to which we may, at our discretion, periodically sell to Cornell Capital shares of our common stock for a total purchase price of up to \$15,000,000. For each share of common stock purchased under the standby equity distribution agreement, Cornell Capital will pay us 98% of the lowest volume weighted average price of our common stock as quoted by on the Over-the-Counter Bulletin Board or other principal market on which our common stock is traded for the five days immediately following the date we deliver a notice requiring Cornell Capital to purchase our shares under the standby equity distribution agreement. Further, Cornell Capital will retain a fee of 5% of each advance under the standby equity distribution agreement for a total effective discount to the market price of our common stock of 7%. This 7% discount is an underwriting discount.

The volume weighted average price is calculated automatically by Bloomberg L.P., a reporting service, and is calculated by multiplying the number of our shares sold on a given day by the actual sales prices and adding up the totals.

Pursuant to the standby equity distribution agreement, we may periodically sell shares of common stock to Cornell Capital to raise capital to fund our working capital needs. The periodic sale of shares is known as an advance. We may request an advance every five trading days. A closing will be held one trading day after the end of each pricing period at which time we will deliver shares of common stock and Cornell Capital will pay the advance amount requested by us.

We may request advances under the standby equity distribution agreement now that the underlying shares are registered with the SEC. Thereafter, we may continue to request advances until Cornell Capital has advanced \$15.0 million or August 12, 2007, whichever occurs first.

The amount of each advance is limited to a maximum draw down of \$200,000 every five trading days and the aggregate amount of advances may not exceed \$800,000 in any 30-day period. The amount available under the standby equity distribution agreement is not dependent on the price or volume of our common stock. We may not request advances if the shares to be issued in connection with such advances would result in Cornell Capital owning more than 9.9% of our outstanding common stock. As of April 6, 2006, we had 366,615,359 shares outstanding so Cornell Capital could not own in excess of 33,443,030 shares. We will be unable to sell additional shares of our common stock to the investor under the standby equity distribution agreement if it is unable to reduce its holdings so as to remain below the 9.9% threshold.

As of April 6, 2006, we sold 117,483,981 shares of common stock to Cornell Capital for \$2,800,000 pursuant to the standby equity distribution agreement at prices ranging from \$0.0130 to \$0.0647. Of such proceeds, we paid commitment fees to Cornell Capital of 5% of the gross proceeds, or \$140,000 in the aggregate and we paid structuring fees to Yorkville Advisors Management aggregating \$7,000, with net proceeds to us of \$2,653,000 from such sales.

We cannot predict the actual number of shares of common stock that will be issued pursuant to the standby equity distribution agreement, in part, because the purchase price of the shares will fluctuate based on prevailing market conditions and we have not determined the total amount of advances we intend to draw. Nonetheless, we can

### **Table of Contents**

estimate the number of shares of our common stock that will be issued using certain assumptions. Assuming we issue shares of common stock at a price of \$0.06 per share and draw down on the entire standby equity distribution agreement, we would issue 250,000,000 shares of common stock to Cornell Capital for gross proceeds of \$15.0 million.

Cornell Capital is an underwriter within the meaning of the Securities Act of 1933 in connection with the sale of common stock issuable under the standby equity distribution agreement.

#### **DEBT EXCHANGE (ARCH HILL)**

On October 21, 2005, pursuant to a Debt Exchange Agreement between us, GAIA Holding, GAIA, Arch Hill Capital and Arch Hill Ventures, we exchanged approximately \$4.4 million of debt owed by GAIA to Arch Hill Ventures for our equity securities as described below (the Exchange ).

Tamarchco GmbH ( Tamarchco ), a 100% owned subsidiary of Arch Hill Ventures, has provided three silent partnership loans to GAIA consisting of 2,364,501 (\$2,883,510) including interest through July 31, 2005 under the First Tamarchco Partnership Agreement (the Tamarchco I Debt ), a 246,979 (\$301,192) loan including interest through July 31, 2005 under the Second Tamarchco Partnership Agreement (the Tamarchco II Debt ) and a 206,168 (\$251,421) loan including interest through July 31, 2005 under the Third Tamarchco Partnership Agreement (the Tamarchco III Debt ) (the three partnership agreements, the Tamarchco Partnership Agreements ).

Tamarchco is entitled to receive an annual 4% share in profits related to its contributions under the First Tamarchco Agreement and an annual 12% share in profits related to its contribution under the Second and Third Tamarchco Agreements payable once GAIA has generated an accumulated profit amounting to \$4,837,000. Tamarchco assigned to Arch Hill Ventures its right to repayment of the Tamarchco I Debt, Tamarchco II Debt and Tamarchco III Debt (together the Tamarchco Debt ).

Frankendael Participatiemaatschappij NV (Frankendael) has provided a partnership loan to GAIA consisting of 547,078 (\$667,162) including interest through July 31, 2005 (the Frankendael Debt). Frankendael is entitled to receive an annual 12% share in profits related to its contributions under the Frankendael Partnership Agreement payable once GAIA has generated an accumulated profit amounting to \$4,627,000. Frankendael has assigned to Arch Hill Ventures its right to repayment of the Frankendael Debt.

In the Debt Exchange we issued to Arch Hill Ventures in exchange for the Tamarchco Debt \$3,436,123 of our 10% convertible debentures and warrants to purchase 1,718,062 shares of our common stock with an exercise price of \$0.38 per share. As further consideration for the exchange of the Tamarchco Debt, Arch Hill Ventures agreed in the Debt Exchange Agreement to transfer to us its 100% ownership interest in Tamarchco.

In the Debt Exchange we issued to Arch Hill Ventures in exchange for the Frankendael Debt \$667,162 of our 10% convertible debentures and warrants to purchase 333,581 shares of our common stock with an exercise price of \$0.38 per share.

We owed interest in the amount of 251,937 (\$307,237) to Arch Hill Ventures on debt previously exchanged for our securities (the Interest Due ). On October 21, 2005 in the Debt Exchange, we issued to Arch Hill Ventures in exchange for the Interest Due \$307,237 convertible debentures and 153,619 warrants of our common stock at an exercise price of \$0.38 per share.

As a condition of the closing of the Debt Exchange, we received from our financial advisor, an opinion that the debt exchange is fair from a financial point of view to our stockholders.

The 10% convertible debentures issued to Arch Hill Ventures in the Debt Exchange (the October 2005 debentures) have a maturity date of October 21, 2007 at which time the principal amount and all accrued interest on the October 2005 debentures is due and payable. Interest payments on the October 2005 debentures are due and payable in cash quarterly, or at the option of Arch Hill Ventures, in our common stock at a price equal to the conversion price of our common stock commencing December 31, 2005. The October 2005 debentures are convertible at any time at the option of the holder into shares of our common stock at the lesser of \$2.00 and the average of the lowest 3 intra-day trading prices during the 20 trading days immediately prior to the conversion date discounted by 50%. The Company recorded \$4,411,000 as a derivative liability representing the fair value of the variable conversion feature on this note. As noted below, the Company, on October 24, 2005, converted the entire

### **Table of Contents**

amount of the October 2005 10% Debentures into 100,000 shares of the Company s Class B Preferred stock. Accordingly, the Company recorded the entire \$4,411,000 as a current year charge to earnings.

We have the right to prepay all or a portion of the outstanding October 2005 debentures and accrued and unpaid interest upon prior written notice to the holders of the October 2005 debentures in an amount equal to 130% of principal and interest for prepayments occurring from October 21, 2005 through December 20, 2005 (60 days), 140% for prepayments of principal and interest occurring from December 20, 2005 through January 19, 2006 (61 90 days) or 150% for prepayment of principal and interest occurring on or after January 19, 2006 (91 day +).

The warrants are exercisable one year from issuance and thereafter only if the warrantholder has not sold any LTC equity securities within the prior six months and expire five years from the date of issuance. The warrants are subject to exercise price adjustments upon the occurrence of certain events including stock dividends, stock splits, mergers, reclassifications of stock or our recapitalization. The exercise price of the warrants is also subject to reduction if we issue any rights, options or warrants to purchase shares of our common stock at a price less than the market price of our shares as quoted on the OTC Bulletin Board. The convertible debenture was issued with a \$218,000 discount due to the fair value ascribed to the detachable warrants utilizing the Black Scholes method. As noted below, the Company, on October 24, 2005, converted the entire amount of these debentures into 100,000 shares of the Company s Class B Preferred stock. Accordingly, the Company recorded the entire \$218,000 as a current year charge to interest expense.

On October 21, 2005 Arch Hill Ventures, which is controlled by Arch Hill Capital, transferred the right to receive the October 2005 debentures and warrants to Stichting Gemeenschappelijk Bezit LTC, which is also controlled by Arch Hill Capital.

On October 24, 2005, Stichting LTC delivered a conversion notice to the Company to convert all of the October 2005 debentures into Company Common Stock at a conversion price of \$0.0167 per share, for a total of 264,103,114 shares of Common Stock. In lieu of delivering such shares of Common Stock which are currently pledged as security under the Cornell debenture or reserved for issuance under the Cornell standby equity distribution agreement, on November 14, 2005, the Company authorized the issuance of 100,000 shares of Series B Convertible Preferred Stock and issued such shares to Stichting LTC. The 100,000 shares of Series B Convertible Preferred Stock is convertible into an aggregate of 264,103,114 shares of Common Stock and has voting rights equal to 264,103,114 shares of Common Stock.

No commissions were paid to any brokers in connection with the Debt Exchange or the issuance of the Arch Hill Ventures Securities.

#### **8% CONVERTIBLE NOTES**

From May 18, 2005 to July 6, 2005, we closed on \$298,000 of equity units (the 2005 Units) in a private placement. Each 2005 Unit, with a purchase price of \$1,000 per unit, consists of a convertible promissory note in the principal amount of \$1,000 (the 8% Notes) and one warrant for each share of common stock issued upon conversion of the 8% Notes to purchase one-half share of our common stock. The 8% Notes are entitled to receive an 8% annual interest payment payable in shares of Company common stock.

During the year ended December 31, 2005, \$251,000 principal of 8% Notes were converted into an aggregate of 5,020,000 shares of common stock at a conversion price of \$0.05 per share and 1,198 shares of common stock were issued to the convertible Noteholders for interest payable in shares. The converting Noteholders were issued warrants to purchase 2,510,000 shares of common stock in the aggregate, at \$0.0675 per share. As of December 31, 2005, \$47,000 in principal of 8% Notes were outstanding.

The 8% Notes are convertible at the election of the holder thereof, at any time commencing from and after their date of issuance and for a period of three years thereafter at a price equal to 85% of the average closing price of our common stock on the OTC-BB for the 20 trading days immediately preceding the day upon which we receive a conversion notice from the Noteholder. The 8% Notes are entitled to receive an 8% annual interest payment payable in shares of our common stock. The per share exercise price of the warrant will be 135% of the conversion price of the 8% Notes.

The Placement Agent in the 2005 Unit Financing and certain affiliated person were issued warrants to purchase 596,000 shares of our common stock at \$.055 per share relating to the 2005 Unit financing.

### **Table of Contents**

The conversion feature resulted in the units being issued with an embedded derivative. Accordingly, the Company has recorded \$53,000 as a derivative liability and a corresponding charge to earnings. In addition, the Company recorded a charge for the fair value of the warrants utilizing the Black-Scholes method issued upon conversion of \$130,000 the 8% Notes during the 3<sup>rd</sup> quarter 2005 of \$113,000.

## **JUNE 2005 DEBENTURES**

On June 9, 2005, we entered into a Debenture Purchase Agreement with an investor, pursuant to which we issued \$1,200,000 of convertible debentures and \$150,000 of convertible debentures as compensation for the transaction (together, the 12% Debentures). The 12% Debentures have a two year term and accrue interest at 12% per year payable in arrears in shares of common stock at the conversion price at conversion or maturity. As of December 31, 2005, \$1,164,000 in principal of the 12% Debentures was outstanding.

Commencing on December 9, 2005 until June 9, 2007, the 12% Debentures are convertible at the option of the holder into shares of common stock at a conversion price equal to \$0.05 per share. The 12% Debentures are not repayable in cash and will be automatically converted into shares of common stock at maturity at the conversion price. In no event is the holder entitled to convert the debentures for a number of shares of common stock in excess of that number of shares of common stock which, upon giving effect to such conversion, would cause the aggregate number of shares of common stock beneficially owned by the holder and its affiliates to exceed 4.99% of the outstanding shares of common stock following such conversion (unless the holder provides us with sixty five (65) days prior written notice that this provision shall not apply). Since these debentures are not repayable in cash, they are reflected as equity (12% convertible debentures) in our financial statements.

The conversion feature resulted in the debentures being issued with an embedded derivative. Accordingly, the Company has recorded approximately \$405,000 of the proceeds received to additional paid-in capital based on the fair value of the embedded beneficial conversion feature. The \$405,000 discount will be recognized as a deemed dividend over the six month period to the earliest conversion date. Additionally, the discount related to the \$150,000 of compensation plus \$36,000 of fees and \$30,000 of warrants issued in connection with issuing the debentures will be recognized as a deemed dividend over the two year life of the debentures or the conversion date, which ever is earlier.

The 12% Debenture holder received 4,532,836 warrants to purchase common stock at exercise prices ranging from \$0.66 to \$0.024 per share. The warrants were originally issued to the finder in the January 2004 debenture financing and subsequently transferred to the 12% Debenture holder. The warrants are exercisable until January 20, 2009.

#### MARCH 2005 12% DEBENTURE

On March 11, 2005, we entered into a debenture purchase agreement with a third party lender, pursuant to which we issued debentures in the principal amount of \$2,500,000. The debentures contain a provision that in the event that the holder elects to waive the conversion feature of the debentures by April 15, 2005, the maturity and amortization of the debentures will be amended such that the debentures will be repaid in 10 equal monthly installments with accrued interest commencing July 15, 2005. The investor waived the conversion feature simultaneously with the closing of the transaction. Pursuant to an amendment dated January 31, 2006, the original maturity date of June 15, 2006 was amended to December 31, 2006 and the original interest rate of 12% per year was amended to 15% per year effective as of October 15, 2005. No monthly payments of principal or interest are due and owing by us prior to December 31, 2006.

In connection with the debenture purchase agreement, we entered into an escrow agreement under which put notices under the standby equity distribution agreement were deposited and certain monies received under that agreement will be received and forwarded to the debentureholder if we do not repay the debenture from other sources of capital. As of December 31, 2005 \$2,000,000 in principal of the debentures was outstanding.

## MANAGEMENT S PLANS TO OVERCOME OPERATING AND

# LIQUIDITY DIFFICULTIES

Over the past four years, we have refocused our unique extrusion-based manufacturing process, cell technology, large battery assembly expertise, and market activities to concentrate on large-format, high rate battery applications. Our commercialization efforts are focused on applying our lithium-ion rechargeable batteries in the national security, transportation and stationary power markets.

### **Table of Contents**

Our operating plan seeks to minimize our capital requirements, but expansion of our production capacity to meet increasing sales and refinement of our manufacturing process and equipment will require additional capital. We expect that operating and production expenses will increase significantly as we continue to ramp up our production and continue our battery technology and develop, produce, sell and license products for commercial applications.

We have recently entered into a number of financing transactions (see Notes 6 and 9). We are continuing to seek other financing initiatives. We need to raise additional capital to meet our working capital needs, for the repayment of debt and for capital expenditures. Such capital is expected to come from the sale of securities, including the sale of common stock under the Standby Equity Distribution Agreement. (See Note 9) We believe that if we raise approximately \$15 million in debt and equity financings, including, under the Standby Equity Distribution Agreement, we would have sufficient funds to meet our needs for working capital and repayment of debt (approximately \$11 million) and for capital expenditures (approximately \$4 million) over the next twelve months.

No assurance can be given that we will be successful in completing any financings at the minimum level necessary to fund our capital equipment, debt repayment or working capital requirements, or at all. If we are unsuccessful in completing these financings, we will not be able to meet our working capital, debt repayment or capital equipment needs or execute our business plan. In such case we will assess all available alternatives including a sale of our assets or merger, the suspension of operations and possibly liquidation, auction, bankruptcy, or other measures.

#### GOING CONCERN MATTERS

Our accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the continuation of operations, realization of assets and liquidation of liabilities in the ordinary course of business. Since inception, we have incurred substantial operating losses and expect to incur additional operating losses over the next several years. As of December 31, 2005, we had an accumulated deficit of approximately \$81,769,000. We have financed our operations since inception primarily through equity financings, loans from shareholders and other related parties, loans from silent partners and bank borrowings secured by assets. We have recently entered into a number of financing transactions and are continuing to seek other financing initiatives. We will need to raise additional capital to meet our working capital needs and to complete our product commercialization process. Such capital is expected to come from the sale of securities, including the sale of common stock under the standby equity distribution agreement. No assurances can be given that such financing will be available in sufficient amounts or at all. Continuation of our operations in 2006 is dependent upon obtaining such further financing. These conditions raise substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

## RESULTS OF OPERATIONS

## YEAR ENDED DECEMBER 31, 2005 COMPARED TO YEAR ENDED DECEMBER 31, 2004

## **Revenues from Development Contracts and Prototype Sales**

Revenues from development contracts and prototype sales increased to \$1,803,000 or 135% in the year ended December 31, 2005 from \$766,000 in the same period in 2004. We also had income from foreign government subsidiaries of \$0 in 2005 compared to \$435,000 in 2004. The increase in revenues from development contracts and prototypes sales and decrease in income from foreign government subsidiaries is a result of our movement from the product and process development and refinement stage to the early production stage of our products.

As we are still a development stage enterprise, our mission continues to be to become a leading manufacturer of rechargeable lithium power solutions for advanced national security, transportation and stationary power applications. We also license our technology and have the capability to enter into other collaborative efforts with third parties.

As a result of our involvement with the military market over the past year, we have received increasing number of orders for prototypes from various customers. Our prototype product has been utilized in unmanned aerial vehicles ( UAVs ), and unmanned underwater vehicles ( UUVs ) as well as in robotics. Our main focus is to provide solutions for the U.S. Military s need for battery applications within new high tech military systems.

Table of Contents

28

### **Table of Contents**

Our efforts during 2005 in the high-tech military area resulted in a number of contracts and/or sub-contracts which have contributed to our significant growth in revenues for the year ended December 31, 2005.

Outside the U.S., we signed an agreement with ThyssenKrupp, the largest manufacturer of non-nuclear, manned submarines to develop and manufacture special, very large lithium ion cells for propulsion.

In the transportation market, the rapidly increasing cost of petroleum-based fuels continue to accelerate the move to hybrid vehicles. While we believe that other automobile manufacturers will take several years to adopt the technology, we are continuing our development efforts through smaller opportunities. Following the success of Penn State University s second place in the Ford Future Truck Competition last year, we filled additional orders from Penn State, University of California Davis, and a British EV/HEV manufacturer.

#### Cost of Goods Sold

Cost of goods sold was \$2,408,000 in the year ended December 31, 2005. In the year ended December 31, 2004, the costs of manufacturing pre-production and scale up units were reported as part of Engineering, Research and Development Expenses.

### **Engineering, Research and Development Expenses**

Engineering, research and development expenses during the year ended December 31, 2005 decreased by 45% to \$2,961,000 from \$5,395,000 in the same period in 2004. In the year ended December 31, 2004, the costs of manufacturing pre-production and scale up units were reported as part of Engineering, Research and Development Expenses.

### **General and Administrative Expenses**

General and administrative expenses during the year ended December 31, 2005, increased by \$96,000 or approximately 2% to \$4,621,000 from \$4,525,000 in the same period in 2004. This increase was primarily due to increased legal expenses and expenses associated with charges related to securities offerings. Sales and Market Expenses, which were included in General and Administrative Expenses in the year ended December 31, 2004, are reported separately in the year ended December 31, 2005.

## Sales and Marketing Expenses

Sales and marketing expenses were \$479,000 in the year ended December 31, 2005. In the year ended December 31, 2004, these expenses were reported as part of General and Administrative Expenses. Sales and Marketing expenses represents costs incurred from sales associates and participation in trade shows relating to the sale of cells and or batteries.

#### **Depreciation and Amortization**

Depreciation and amortization during the year ended December 31, 2005 increased by \$19,000 to \$1,843,000 from \$1,824,000 in the same period in 2004.

## Interest Expense, Net of Interest Income, and Interest Expense Related to Beneficial Conversion

Interest expense, net of interest income, and interest expense related to beneficial conversion for the year ended December 31, 2005 increased by \$7,312,000 or 176% to \$11,463,000 from \$4,151,000 in the same period in 2004. Interest expense mainly represents interest accrued on the loans from Arch Hill Capital and Arch Hill Ventures and other lenders as well as the interest accrued on the January 2004 and April 2004 debentures and the March 2005 Debenture, . Interest expense also includes the amortization of the discount on the embedded derivative on the January and April 2004 10% convertible debentures. Both the January and April 2004 convertible debentures were fully converted as of December 31, 2005.

### Charge for Embedded Derivative, Warrants and Beneficial Conversion Feature Preferred Shares and Dividends on Preferred Shares

Charge for embedded derivative, warrants and beneficial conversion feature preferred shares and dividends on preferred shares were \$3,886,000 and \$3,780,000, respectively, in the year ended December 31, 2005 and 2004. There were no preferred shares outstanding in the year ended December 31, 2004. This primarily represents the Series A and B Notes charges related to the embedded derivative feature on the issuance and conversion of convertible debentures, relating to a debt exchange, in October 2005. For more information concerning this transaction, see Note 6 Debt (Debt Exchange) within the consolidated financial statements contained herein.

#### **Net Loss to Common Shareholders**

Net loss to common shareholders was approximately \$25,858,000 or \$(0.11) per share for the year ended December 31, 2005 as compared to a net loss of \$18,531,000 or \$(0.57) for the year ended December 31, 2004. The increase in net loss for the year was principally due to the following factors: 1) an increase in interest expense on outstanding debt and the interest expense related to the debentures issued in January 2004, April 2004 and March 2005 including the amortization of the discount on the embedded derivatives on our convertible debentures, 2) an increase in charges related to the embedded derivatives concerning the Series A and Series B Notes and the issuance of convertible debentures related to the debt exchange that occurred in October 2005 (see Note 6 Debt (Series A and B Notes and Debt Exchange) within the consolidated financial statements contained herein for more details), 3) charges in 2005 relating to the issuance of warrants upon the conversion of both the Series A and B and convertible notes

### **Accumulated Deficit**

Since inception, we have incurred substantial operating losses and expect to incur substantial additional operating losses over the next several years. As of December 31, 2005, our accumulated deficit was \$81,769,000.

#### CRITICAL ACCOUNTING POLICIES

The Securities and Exchange Commission (SEC) defines—critical accounting policies—as those that require application of management—s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Our significant accounting policies are described in Note 2 in the Notes to the Consolidated Financial Statements. Not all of these significant accounting policies require management to make difficult, subjective or complex judgments or estimates. However, the following policies could be deemed to be critical within the SEC definition.

#### Revenues

We perform certain research and development for other companies and sell prototypes to third parties. Revenue is recognized as services are rendered or products are delivered, the price to the buyer is fixed and determinable, and collectibility is reasonably assured.

## Useful Lives of Tangible and Intangible Assets

Depreciation and amortization of tangible and intangible assets are based on estimates of the useful lives of the assets. We regularly review the useful life estimates established to determine their propriety. Changes in estimated useful lives could result in increased depreciation or amortization expense in the period of the change in estimate and in future periods that could materially impact our financial condition and results of operations.

# Impairment of Long-Lived Assets

Effective January 1, 2002, we adopted Statement of Financial Accounting Standards (SFAS) No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets (SFAS No. 144) SFAS No. 144 requires that long-lived assets and certain identifiable intangibles be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. An impairment charge could materially impact our financial condition and results of operations.

21

#### **Income Taxes**

As part of the process of preparing our consolidated financial statements, we are required to estimate our taxes in each of the jurisdictions of operation. This process involves management estimating the actual current tax expense together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within the consolidated balance sheet. We then must assess the likelihood that the deferred tax assets will be recovered from future taxable income and, to the extent recovery is not likely, we must establish a valuation allowance. Future taxable income depends on the ability to generate income in excess of allowable deductions. Significant management judgment is required in determining the provision for income taxes, deferred tax assets and liabilities and any valuation allowance recorded against net deferred tax assets. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to change our valuation allowance that could materially impact our financial condition and results of operations.

#### **Fair Value of Financial Instruments**

Fair value estimates, assumptions and methods used to estimate fair value of our financial instruments are made in accordance with the requirements of SFAS No. 107, Disclosures about Fair Value of Financial Instruments. We have used available information to derive our estimates. However, because these estimates are made as of a specific point in time, they are not necessarily indicative of amounts we could realize currently. The use of different assumptions or estimating methods may have a material effect on the estimated fair value amounts.

### **Convertible Securities With Beneficial Conversion Features**

The Company accounts for debt with embedded conversion features and warrant issuances in accordance with EITF 98-5: Accounting for convertible securities with beneficial conversion features or contingency adjustable conversion and EITF No. 00-27: Application of issue No. 98-5 to certain convertible instruments. Conversion features determined to be beneficial to the holder are valued at fair value and recorded to additional paid in capital. The Company determines the fair values to be ascribed to detachable warrants issued with the convertible debentures utilizing the Black-Scholes method. Any discount derived from determining the fair value of the beneficial conversion features and the warrants is amortized to financing costs over the remaining life of the debenture. The unamortized discount, if any, upon the conversion of the debentures is expensed to financing cost on a pro-rata basis.

Debt issued with variable conversion features are considered to be embedded derivatives and are accounted for in accordance with FASB 133 Accounting for Derivative Instruments and Hedging Activities. The fair value of the embedded derivative is recorded to a derivative liability. This liability is required to be marked to marked each reporting period. The resulting discount on the debt is amortized to interest expense over the life of the related debt.

### RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

On December 16, 2004, the Financial Accounting Standards Board (FASB) issued SFAS No. 123(R), Share-Based Payment, which is a revision of SFAS No. 123 and supersedes APB Opinion 25. SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be valued at fair value on the date of grant, and to be expensed over the applicable vesting period. Pro forma disclosure of the income statement effects of share-based payments is no longer an alternative. SFAS No. 123(R) is effective for all stock-based awards granted on or after January 1, 2006. In addition, companies must also recognize compensation expense related to any awards that are not fully vested as of the effective date. Compensation expense for the unvested awards will be measured based on the fair value of the awards previously calculated in developing the pro forma disclosures in accordance with the provisions of SFAS No. 123.

The Company plans to adopt SFAS No. 123(R) on January 1, 2006. This change in accounting is not expected to materially impact our results of operations. We have not completed the calculation of this impact. However, because we currently account for share-based payments to our employees using the intrinsic value method, our results of operations have not included the recognition of compensation expense for the issuance of stock option awards.

On December 16, 2004, the FASB issued SFAS No. 153, Exchanges of Nonmonetary Assets , which is an amendment to APB Opinion No. 29. It states that the exchanges on nonmonetary assets should be measured based on the fair value of the assets exchanged. Further, FSAS No. 153 eliminates the narrow exception for nonmonetary

### **Table of Contents**

exchanges of similar productive assets and replaces it with a broader exception for exchanges of nonmonetary assets that do not have commercial substance. SFAS No. 153 is effective for financial statements for fiscal years beginning after June 15, 2005. Earlier application is permitted for nonmonetary asset exchanges incurred during fiscal years beginning after the date that this statement is issued. Management believes the adoption of this Statement will not have an effect on the consolidated financial statements.

In May 2005, the FASB issued SFAS No. 154, Accounting Changes and Error Corrections a replacement of APB Opinion No. 20 and FASB Statement No. 3 (SFAS No. 154). SFAS No. 154 requires retrospective application as the required method for reporting a change in accounting principle, unless impracticable or a pronouncement includes specific transition provisions. SFAS No. 154 also requires that a change in depreciation, amortization or depletion method for long-lived, nonfinancial assets be accounted for as a change in accounting estimate effected by a change in accounting principle. This statement carries forward the guidance in APB Opinion No. 20, Accounting Changes, for the reporting of the correction of an error and a change in accounting estimate. SFAS No. 154 is effective beginning January 1, 2006. SFAS No. 154 is not expected to have a significant impact on our financial position, results of operations or cash flows.

In February 2006, the FASB issued SFAS No. 155, Accounting for Certain Hybrid Financial Instruments an amendment of FASB Statements No. 133 and 140 . SFAS No. 155 resolves issues addressed in SFAS No. 133 Implementation Issue No. D1, Application of Statement 133 to Beneficial Interests in Securitized Financial Assets . SFAS No. 155 will become effective for the Company s fiscal year after September 15, 2006. The impact of SFAS No. 155 will depend upon the nature and extent of any new derivative instruments entered into after the effective date.

In June 2005, the FASB ratified Emerging Issues Task Force (EITF) Issue No. 05-2, The Meaning of `Conventional Convertible Debt Instrument in EITF No. 00-19, `Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock (EITF No. 05-2), which addresses when a convertible debt instrument should be considered `conventional for the purpose of applying the guidance in EITF No. 00-19. EITF No. 05-2 also retained the exemption under EITF No. 00-19 for conventional convertible debt instruments and indicated that convertible preferred stock having a mandatory redemption date may qualify for the exemption provided under EITF No. 00-19 for conventional convertible debt if the instrument seconomic characteristics are more similar to debt than equity. EITF No. 05-2 is effective for new instruments entered into and instruments modified in periods beginning after June 29, 2005. The Company has applied the requirements of EITF No. 05-2 since the required implementation date. The adoption of this pronouncement did not have an impact on the Company's consolidated financial position, results of operations or cash flows.

EITF Issue No. 05-4 The Effect of a Liquidated Damages Clause on a Freestanding Financial Instrument Subject to EITF Issue No. 00-19, `Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company s Own Stock (EITF No. 05-4) addresses financial instruments, such as stock purchase warrants, which are accounted for under EITF 00-19 that may be issued at the same time and in contemplation of a registration rights agreement that includes a liquidated damages clause. The consensus for EITF No. 05-4 has not been finalized. The adoption of this pronouncement is not expected to have an impact on the Company s consolidated financial position, results of operations, or cash flows.

In September 2005, the FASB ratified the EITF s Issue No. 05-7, Accounting for Modifications to Conversion Options Embedded in Debt Instruments and Related Issues (EITF 05-7), which addresses whether a modification to a conversion option that changes its fair value effects the recognition of interest expense for the associated debt instrument after the modification, and whether a borrower should recognize a beneficial conversion feature, not a debt extinguishment, if a debt modification increases the intrinsic value of the debt (for example, the modification reduces the conversion price of the debt). The adoption of this pronouncement did not have an impact on the Company s consolidated financial position, results of operations or cash flows.

In September 2005, the FASB ratified the following consensus reached in EITF Issue 05-8: a) The issuance of convertible debt with a beneficial conversion feature results in a basis difference in applying FASB Statement of Financial Accounting Standards SFAS No. 109. This consensus is effective in the first interim or annual reporting period commencing after December 15, 2005, with early application permitted. The effect of applying the consensus should be accounted for retroactively to all debt instruments containing a beneficial conversion feature that are subject to EITF Issue 00-27 (and thus is applicable to debt instruments converted or extinguished in prior periods but which are still presented in the financial statements). The adoption of this pronouncement did not have an impact on the Company s consolidated financial position, results of operations or cash flows.

#### RISK FACTORS

WE ARE SUBJECT TO VARIOUS RISKS THAT MAY MATERIALLY HARM OUR BUSINESS, FINANCIAL CONDITION AND RESULTS OF OPERATIONS. IF ANY OF THESE RISKS OR UNCERTAINTIES ACTUALLY OCCURS, OUR BUSINESS, FINANCIAL CONDITION OR OPERATING RESULTS COULD BE MATERIALLY HARMED. IN THAT CASE, THE TRADING PRICE OF OUR COMMON STOCK COULD DECLINE AND YOU COULD LOSE ALL OR PART OF YOUR INVESTMENT.

### RISKS RELATED TO OUR BUSINESS

WE HAVE A WORKING CAPITAL DEFICIT, WHICH MEANS THAT OUR CURRENT ASSETS ON DECEMBER 31, 2005 WERE NOT SUFFICIENT TO SATISFY OUR CURRENT LIABILITIES. We had a working capital deficit of approximately \$6,721,000 at December 31, 2005, which means that our current liabilities exceeded our current assets on December 31, 2005. Current assets are assets that are expected to be converted to cash within one year and, therefore, may be used to pay current liabilities as they become due.

WE HAVE SUBSTANTIAL INDEBTEDNESS AND ARE HIGHLY LEVERAGED. At December 31, 2005, we had total consolidated long-term indebtedness of approximately \$7,220,000, plus current portion of approximately \$3,541,000. We also had at December 31, 2005, current liabilities, not including the current portion of long-term debt, of approximately \$4,524,000.

The level of our indebtedness and related debt service requirements could negatively impact our ability to obtain any necessary financing in the future for working capital, capital expenditures or other purposes. A substantial portion of our future cash flow from operations, if any, may be dedicated to the payment of principal and interest on our indebtedness. Our high leverage may also limit our flexibility to react to changes in business and may place us at a competitive disadvantage to less highly leveraged competitors. In addition, creditors who remain unpaid may initiate collection proceedings, which could hamper our operations due to our short term cash needs or the effect on our assets subject to debt.

WE HAVE A HISTORY OF OPERATING LOSSES AND HAVE BEEN UNPROFITABLE SINCE INCEPTION. We incurred net losses of approximately \$81,769,000 from February 12, 1999 (date of inception) to December 31, 2005, including approximately \$25,858,000 of net loss to common shareholders in the year ended December 31, 2005. We expect to incur substantial additional operating losses in the future. During the year ended December 31, 2005 and 2004, we generated revenues from development contracts and prototype sales in the amounts of \$1,803,000 and \$766,000, respectively. We cannot assure you that we will continue to generate revenues from operations or achieve profitability in the near future or at all.

WE NEED SIGNIFICANT FINANCING TO CONTINUE TO DEVELOP AND COMMERCIALIZE OUR TECHNOLOGY. We have recently entered into a number of financing transactions and are continuing to seek other financing initiatives. We will need to raise additional capital to meet our working capital needs and to complete our product commercialization process. Such capital is expected to come from the sale of securities,

24

including the sale of common stock under the standby equity distribution agreement. We believe that if we raise approximately \$15 million in debt and equity financings including under the standby equity distribution agreement, we would have sufficient funds to meet our operating and capital expenditures needs for at least twelve months. If we do not raise such additional capital, we will assess all available alternatives including a sale of our assets or merger, the suspension of operations and possibly liquidation, auction, bankruptcy, or other measures.

Except as described herein, we have not entered into any definitive agreements related to a new financing and no assurance can be given that we will be successful in completing these or any other financings at the minimum level necessary to fund our capital equipment requirements, current operations or at all. If we are unsuccessful in completing these financings at such minimum level, we will not be able to fund our capital equipment requirements or current expenses or execute our business plan. If we are unsuccessful in completing these financings at or near the maximum level or an additional financing, we will not be able to pursue our business strategy. Additional financing may not be available on terms favorable to us or at all. Even if we do obtain financing, it may result in dilution to our stockholders.

THE STANDBY EQUITY DISTRIBUTION AGREEMENT AND CONVERTIBLE DEBENTURES CONTAIN CERTAIN COVENANTS PROHIBITING US FROM RAISING CAPITAL AT LESS THAN THE MARKET PRICE. The standby equity distribution agreement and convertible debentures held by Cornell Capital contain covenants that, subject to certain exceptions, restrict the following activities:

Raising capital from the sale of stock or other securities convertible into stock at a price less than the market price of our common stock on the date of issuance; or

Granting a security interest in our assets, which security interest may be needed in order to obtain borrowings or capital from a lender, except that the secured party is obligated to subordinate the priority of its security interest under certain circumstances.

The existence of these covenants may severely limit our ability to borrow money or raise capital from the sale of stock or convertible securities because any potential lender will want to pay a discount to the market price of our stock or because any potential lender will likely require collateral in the form of a security interest on our assets to secure a loan and purchasers of our stock or convertible securities.

RESTRICTIONS UNDER THE STANDBY EQUITY DISTRIBUTION AGREEMENT COULD SIGNIFICANTLY LIMIT OUR ABILITY TO ACCESS FUNDS WHEN NEEDED. We are dependent on external financing to fund our operations. Our financing needs are expected to be provided from the standby equity distribution agreement, in large part. No assurances can be given that such financing will be available in sufficient amounts or at all when needed since there are restrictions on our ability to request advances under the standby equity distribution agreement. For example, our ability to request an advance is conditioned upon us maintaining an effective registration statement for the shares of common stock with the Securities and Exchange Commission. Further, we may not request advances if the shares to be issued in connection with such advances would result in Cornell Capital owning more than 9.9% of our outstanding common stock. Even if we request advances the amount of each advance is limited to a maximum draw down of \$200,000 every five trading days and \$800,000 every thirty days. These restrictions may significantly limit and delay our ability to access funds under the standby equity distribution agreement.

THERE MAY BE NO REMAINING PROCEEDS FOR STOCKHOLDERS IN THE EVENT OF OUR DISSOLUTION. In the event of our dissolution, the proceeds from the liquidation of our assets, if any, will be first used to satisfy the claims of creditors, including Cornell Capital which has a security interest in our U.S. assets granted in connection with the debenture financing. Only after all outstanding debts are satisfied will the remaining proceeds, if any, be distributed to our stockholders. Accordingly, the ability of any investor to recover all or any portion of an investment in our securities under such circumstances will depend on the amount of funds so realized and claims to be satisfied therefrom.

WE HAVE NOT PRODUCED SIGNIFICANT COMMERCIAL QUANTITIES OF LITHIUM-ION BATTERIES. Our construction of large batteries for military, transportation and stationary power applications requires customized, tailored solutions for each application. At present, we operate a small production line that produces limited quantities of standardized cells. We have taken these cells and assembled them into various prototype batteries. We have had repeat orders for the same batteries, but to be successful, we must ultimately

25

produce our lithium-ion batteries (i) in reasonable commercial quantities; (ii) at competitive costs; (iii) with appropriate performance characteristics; and (iv) with low failure rates. We currently have no high volume manufacturing capability or experience in large scale manufacturing of either our standard cells or our customized batteries. We have limited experience in automated cell assembly and packaging technology. We cannot give any assurance that we will be able to produce commercial lithium-ion batteries on a timely basis, at an acceptable cost or in the necessary commercial specifications or quantities.

COMPETITION IN THE RECHARGEABLE BATTERY INDUSTRY IS INTENSE. The rechargeable battery industry consists of major domestic and international companies, many of which have financial, technical, manufacturing, distribution, marketing, sales and other resources substantially greater than ours. We compete against companies producing lithium batteries as well as other primary and rechargeable battery technologies. Further, our competitors may introduce emerging technologies or refine existing technologies which could compete with our products and have a significant negative impact on our business and financial condition.

EXPANDING MARKET ACCEPTANCE OF OUR BATTERIES IS UNCERTAIN. While initial market acceptance of our cells and our custom engineered batteries has been good, we cannot guarantee going forward that we will be able to achieve market acceptance in larger more standardized markets. Market acceptance will depend on a number of factors, including:

our ability to keep production costs low. Other advanced battery chemistries may be produced at a reduced cost. As we work to reduce the cost of our batteries, we expect that manufacturers of other advanced battery chemistries will do the same.

lithium-ion battery life in various commercial applications. While initial testing is promising, it is difficult to predict the life of lithium-ion batteries in high rate applications. If our batteries do not last long enough when used for high rate applications, it is unlikely that there will be market acceptance of our battery products.

timely introductions of new products. Our introduction of new products will be subject to the inherent risks of unforeseen problems and delays. Delays in product availability may negatively affect their market acceptance.

OUR BATTERY TECHNOLOGY MAY BECOME OBSOLETE. The market for our rechargeable batteries is characterized by changing technology and evolving industry standards, often resulting in product obsolescence or short product lifecycles. Changes in end-user requirements and new products introductions and enhancements by our competitors may also render our technology obsolete. Our success will depend upon our ability to introduce in a timely manner products whose performance will match or better our competitors products. There can be no assurance that our competitors will not develop technologies or products that would render our technology and products obsolete or less marketable.

OUR BUSINESS STRATEGY DEPENDS ON THE CONTINUED GROWTH OF THE LITHIUM BATTERY INDUSTRY. We would be adversely affected if sales of rechargeable lithium batteries do not continue to grow. The growth in sales of rechargeable lithium batteries may be inhibited for any number of reasons, including: competition from other battery chemistries;

the failure of large-scale commercial production of lithium battery powered hybrid electric vehicles;

a significant downturn in military activities requiring rechargeable power sources; or

the failure of the markets to accept the use of lithium batteries in large-scale applications, such as energy storage.

WE MAY NOT BE ABLE TO ACCOMMODATE INCREASED DEMAND FOR OUR BATTERIES. Rapid growth of our business may significantly strain our management, operations and technical resources. If we are successful in obtaining orders for commercial production of our batteries, we will be required to deliver large volumes of quality products to our customers on a timely basis and at a reasonable cost. We cannot assure you that we will obtain commercial scale orders for our batteries or that we will be able to satisfy commercial scale production requirements on a timely and cost-effective basis. As our business grows, we will also be required to

continue to improve our operations, management and financial systems and controls. Our failure to manage our growth effectively could have an adverse effect on our ability to produce products and meet the demands of our customers.

CERTAIN COMPONENTS OF OUR BATTERIES POSE SAFETY RISKS THAT MAY CAUSE ACCIDENTS IN OUR FACILITIES AND IN THE USE OF OUR PRODUCTS. As with any battery, our lithium-ion batteries can short circuit when not handled properly. Due to the high energy and power density of lithium-ion batteries, a short circuit can cause rapid heat buildup. Under extreme circumstances, this could cause a fire. This is most likely to occur during the formation or testing phase of our process. While we incorporate safety procedures and specific safety testing in our battery testing lab to minimize safety risks, we cannot assure you that an accident in any part of our facilities where charged batteries are handled will not occur. Any such accident could result in injury to our employees or damage to our facility and would require an internal investigation by our technical staff. Likewise any battery that is abused by a customer, could, under extreme circumstances conceivably cause a fire. We employ all appropriate design and electronic protections. We also carry the appropriate liability insurance. Any such injuries, damages or investigations could lead to liability to our company, cause delays in manufacturing of our product and/or adversely effect market acceptance which could adversely affect our operations and financial condition.

Our manufacturing process incorporates pulverized solids, which can be toxic to employees when allowed to become airborne in high concentrations. We have incorporated safety controls and procedures into our pilot line manufacturing processes designed to maximize the safety of our employees and neighbors. Any related incident, including fire or personnel exposure to toxic substances, could result in significant production delays or claims for damages resulting from injuries, which could adversely affect our operations and financial condition.

WE MUST COMPLY WITH EXTENSIVE REGULATIONS GOVERNING SHIPMENT OF OUR BATTERIES AND OPERATION OF OUR FACILITY. We are subject to the U.S. Department of Transportation (USDOT) and the International Transport Association (IATA) regulations regarding shipment of lithium-ion batteries. Due to the size of our batteries, a permit is required to transport our lithium batteries from our manufacturing facility. Although similar batteries with other chemistries are routinely shipped from manufacturing facilities to all parts of the world, we cannot assure you that we will not encounter any difficulties in obtaining shipment permits or in complying with new or amended regulations regarding shipment of our products.

WE COULD INCUR SIGNIFICANT COSTS FOR VIOLATIONS OF OR TO COMPLY WITH APPLICABLE ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY LAWS AND REGULATIONS. National, state, local and foreign laws impose various environmental controls on the manufacture, storage, use and disposal of lithium batteries and of certain chemicals used in the manufacture of lithium batteries. Although we believe that our operations are in substantial compliance with current environmental regulations and that there are no environmental conditions that will require material expenditures for clean-up at our facility or at facilities to which we have sent waste for disposal, we cannot assure you that new laws or regulations or changes in existing laws or regulations will not impose costly compliance requirements on us or otherwise subject us to future liabilities. Moreover, foreign, state and local governments may enact additional restrictions relating to the disposal of lithium batteries used by our customers which could require us to respond to those restrictions or could negatively affect the demand for those batteries.

As with all employers in the U.S., we must comply with U.S. Occupational and Safety Administration (OSHA) regulations designed for the protection of employees while at the workplace. We are also subject to U.S. Environmental Protection Agency (USEPA) and Pennsylvania Department of Environmental Protection Agency (PADEP) regulations designed to protect the environment from contaminants that can be discharged from manufacturing facilities. We cannot assure you that we will not incur significant expenses or encounter any difficulties in complying with OSHA, USEPA, and PADEP regulations.

OUR BUSINESS AND GROWTH WILL SUFFER IF WE ARE UNABLE TO RETAIN KEY PERSONNEL. Our success depends in large part upon the services of a number of key employees and senior management. If we lose the services of one or more of our key employees or senior management, it could have a significant negative impact on our business.

WE CANNOT GUARANTEE THE PROTECTION OF OUR TECHNOLOGY OR PREVENT THE DEVELOPMENT OF SIMILAR TECHNOLOGY BY OUR COMPETITORS. Our success depends largely on the knowledge, ability, experience and technological expertise of our employees rather than on the legal protection of our patents and other proprietary rights. We claim proprietary rights in various unpatented technologies, know-how, trade secrets and trademarks relating to our products and manufacturing processes. We cannot guarantee the adequacy of protection these claims afford, or that our competitors will not independently develop or patent technologies that are substantially equivalent or superior to our technology. We protect our proprietary rights in our products and operations through contractual obligations, including nondisclosure agreements, with our employees and consultants. We cannot guarantee the adequacy of protection these contractual measures afford.

We have patents issued and patent applications pending in the U.S., Europe and elsewhere. We cannot assure you (i) that patents will be issued from any pending applications, (ii) that the claims allowed under any patents will be sufficiently broad to protect our technology, (iii) that any patents issued to us will not be challenged, invalidated or circumvented, or (iv) as to the adequacy of protection any patents or patent applications afford.

If we are found to be infringing upon third party patents, we cannot assure you that we will be able to obtain licenses with respect to such patents on acceptable terms, if at all. Our failure to obtain necessary licenses could lead to costly attempts to design around such patents or delay or even foreclose the development, manufacture or sale of our products.

WE MAY FACE LIABILITY IF OUR BATTERIES FAIL TO FUNCTION PROPERLY. We maintain liability insurance coverage that we believe is sufficient to protect us against potential claims. We cannot assure you that our liability insurance will continue to be available to us on its current terms or at all, or that such liability insurance will be sufficient to cover any claim or claims.

ARCH HILL CAPITAL IS A CONTROLLING STOCKHOLDER OF LTC AND IS THEREFORE ABLE TO CONTROL THE MANAGEMENT AND POLICIES OF LTC. Arch Hill Capital beneficially owns 503,758,196 shares of our common stock as of April 6, 2006. The 503,758,196 shares of our common stock beneficially owned by Arch Hill Capital constitute approximately 70% of our common stock on an as-converted basis, including shares beneficially owned by Arch Hill Capital and shares issuable upon conversion of convertible securities held by Arch Hill Capital but not including any shares issuable upon conversion of outstanding convertible securities held by any other person. Accordingly, Arch Hill Capital is a controlling stockholder and is able to control the outcome of all matters submitted to our stockholders for approval, including the election of our directors, amendments to our Certificate of Incorporation or a merger, sale of assets or other significant transactions, without the approval of our other stockholders. In addition, Arch Hill Capital controls a majority of the voting power of GAIA Holding and GAIA by virtue of its ownership of a controlling interest in us. As a result, Arch Hill Capital has an effective veto power over the management and operations of, and corporate transactions by, us, GAIA Holding or GAIA which management or non-control stockholders of such entities might desire.

The calculation of percentage of our common stock beneficially owned by Arch Hill Capital is based on the number of shares of our common stock outstanding as of April 6, 2006 (366,615,359) plus the number of shares of our common stock issuable to Arch Hill Capital upon conversion of convertible securities held by such entity.

# RISKS RELATED TO OUR SHARES

FUTURE SALES BY OUR STOCKHOLDERS MAY ADVERSELY AFFECT OUR STOCK PRICE AND OUR ABILITY TO RAISE FUNDS IN NEW STOCK OFFERINGS. Sales of our common stock in the public market could lower the market price of our common stock. Sales may also make it more difficult for us to sell equity securities or equity-related securities in the future at a time and price that our management deems acceptable or at all. As of April 6, 2006, we had 366,615,359 shares of common stock outstanding, without taking into account shares issuable upon exercise of outstanding Series A Convertible Preferred Stock, Series B Convertible Preferred Stock, convertible debentures, warrants or options or shares issuable under the standby equity distribution agreement without taking into account shares issuable upon exercise of the outstanding Series A Convertible Preferred Stock, Series B Convertible Preferred Stock, convertible notes, convertible debentures, warrants or options or shares issuable under the standby equity distribution agreement or 250,000,000 shares of common stock pledged by us to Cornell Capital as security.

EXISTING SHAREHOLDERS MAY EXPERIENCE SIGNIFICANT DILUTION FROM OUR SALE OF SHARES UNDER THE STANDBY EQUITY DISTRIBUTION AGREEMENT. The sale of shares pursuant to the standby equity distribution agreement may have a dilutive impact on our stockholders. As a result, our net income per share could decrease in future periods, and the market price of our common stock could decline. In addition, the lower our stock price is, the more shares of common stock we will have to issue under the standby equity distribution agreement to draw down the full amount. If our stock price is lower, then our existing stockholders would experience greater dilution.

THE INVESTOR UNDER THE STANDBY EQUITY DISTRIBUTION AGREEMENT WILL PAY LESS THAN THE THEN-PREVAILING MARKET PRICE OF OUR COMMON STOCK. The common stock to be issued under the standby equity distribution agreement will be issued at a 2% discount to the volume weighted average price for the five trading days immediately following the notice date of an advance. These discounted sales could cause the price of our common stock to decline.

THE SALE OF OUR STOCK UNDER OUR STANDBY EQUITY DISTRIBUTION AGREEMENT COULD ENCOURAGE SHORT SALES BY THIRD PARTIES, WHICH COULD CONTRIBUTE TO THE FUTURE DECLINE OF OUR STOCK PRICE. The significant downward pressure on the price of our common stock caused by the sale of material amounts of common stock under the standby equity distribution agreement could encourage short sales by third parties. In a short sale, a prospective seller borrows stock from a shareholder or broker and sells the borrowed stock. The prospective seller hopes that the stock price will decline, at which time the seller can purchase shares at a lower price to repay the lender. The seller profits when the stock price declines because it is purchasing shares at a price lower than the sale price of the borrowed stock. Such sales could place further downward pressure on the price of our common stock by increasing the number of shares being sold.

WE DO NOT HAVE ENOUGH SHARES OF COMMON STOCK AUTHORIZED TO ISSUE SHARES OF COMMON STOCK TO ALL HOLDERS OF OUR CONVERTIBLE SECURITIES UPON CONVERSION OF SUCH SECURITIES. We intend to seek stockholder approval of an increase in the authorized number of shares of our common stock during the second fiscal quarter of 2006 to make available that number of shares of our common stock as will be required for the conversion of all of our outstanding convertible securities and securities which may be issued as part of a new financing. Although our controlling stockholder has indicated its willingness to vote in favor of an increase in the authorized number of shares of our common stock, no assurance can be given that we will be able to obtain a stockholder vote in favor of such an increase in a timely manner or at all.

THE MARKET PRICE OF OUR COMMON STOCK MAY BE VOLATILE, WHICH COULD CAUSE THE VALUE OF AN INVESTMENT IN OUR STOCK TO DECLINE. The market price of shares of our common stock has been and is likely to continue to be highly volatile. Factors that may have a significant effect on the market price of our common stock include the following: sales of large numbers of shares of our common stocks in the open market, including shares issuable at a fluctuating conversion price at a discount to the market price of our common stock;

our operating results;
our need for additional financing;
announcements of technological innovations or new commercial products by us or our competitors;
developments in our patent or other proprietary rights or our competitors developments;
our relationships with current or future collaborative partners;
governmental regulation; and

other factors and events beyond our control.

29

# **Table of Contents**

In addition, our common stock has been relatively thinly traded. Thinly traded common stock can be more volatile than common stock trading in an active public market. We cannot predict the extent to which an active public market for the common stock will develop.

In addition, the stock market in general has experienced extreme volatility that often has been unrelated to the operating performance of particular companies. These broad market and industry fluctuations may adversely affect the trading price of our common stock, regardless of our actual operating performance.

As a result of potential stock price volatility, investors may be unable to resell their shares of our common stock at or above the cost of their purchase prices. In addition, companies that have experienced volatility in the market price of their stock have been the subject of securities class action litigation. If we were to become the subject of securities class action litigation, this could result in substantial costs, a diversion of our management s attention and resources and harm to our business and financial condition.

#### OUR COMMON STOCK MAY BE AFFECTED BY LIMITED TRADING VOLUME AND MAY FLUCTUATE

SIGNIFICANTLY. There has been a limited public market for our common stock and there can be no assurance that an active trading market for our common stock will develop. An absence of an active trading market could adversely affect our shareholders ability to sell our common stock in short time periods, or possibly at all. Our common stock has experienced, and is likely to experience in the future, significant price and volume fluctuations that could adversely affect the market price of our common stock without regard to our operating performance. In addition, we believe that factors such as quarterly fluctuations in our financial results and changes in the overall economy or the condition of the financial markets could cause the price of our common stock to fluctuate substantially.

OUR COMMON STOCK IS DEEMED TO BE PENNY STOCK, WHICH MAY MAKE IT MORE DIFFICULT FOR INVESTORS TO SELL THEIR SHARES DUE TO SUITABILITY REQUIREMENTS. Our common stock is deemed to be penny stock as that term is defined in Rule 3a51-1 promulgated under the Securities Exchange Act of 1934. These requirements may reduce the potential market for our common stock by reducing the number of potential investors. This may make it more difficult for investors in our common stock to sell shares to third parties or to otherwise dispose of them. This could cause our stock price to decline. Penny stocks are stock:

with a price of less than \$5.00 per share;

that are not traded on a recognized national exchange;

whose prices are not quoted on the Nasdaq automated quotation system (Nasdaq-listed stocks must still have a price of not less than \$5.00 per share); or

in issuers with net tangible assets less than \$2.0 million (if the issuer has been in continuous operation for at least three years) or \$5.0 million (if in continuous operation for less than three years), or with average revenues of less than \$6.0 million for the last three years.

Broker/dealers dealing in penny stocks are required to provide potential investors with a document disclosing the risks of penny stocks. Moreover, broker/dealers are required to determine whether an investment in a penny stock is a suitable investment for a prospective investor.

# ITEM 7. FINANCIAL STATEMENTS

Our Financial Statements beginning on page F-1 are filed as part of this Annual Report on Form 10-KSB and are incorporated herein by reference.

ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE Not Applicable.

30

# **Table of Contents**

#### ITEM 8A. CONTROLS AND PROCEDURES

As of December 31, 2005, an evaluation was carried out under the supervision and with the participation of our management, including our Chief Operating Officer (our Principal Executive Officer) and Chief Financial Officer (our Principal Financial and Accounting Officer), of the effectiveness of disclosure controls and procedures. Based on that evaluation, the Chief Operating Officer and Chief Financial Officer have concluded that disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in reports that the Company file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms. No changes in the Company s internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, its internal control over financial reporting, including any corrective actions with regard to significant deficiencies and material weaknesses, occurred during the fourth quarter of fiscal 2005 or subsequent to the date of the evaluation by its management thereof.

#### PART III

# ITEM 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT

The following table sets forth information concerning LTC s directors and executive officers and the directors and executive officers of GAIA Holding and GAIA as of April 6, 2006:

NAME	AGE	POSITION
Hendrikus Harold van Andel	62	Chairman of the Board of LTC
		Chief Executive Officer and Executive Director of GAIA Holding
		Supervisory Director of GAIA
Dr. Andrew J. Manning	59	President, Chief Operating Officer and
		Chief Technical Officer of LTC
		Managing Director of GAIA
		Director of LTC
Dr. Klaus Brandt	57	Executive Vice President of LTC
		Managing Director of GAIA
William F. Hackett	55	Chief Financial Officer, Executive Vice President and Treasurer of LTC
		Director of LTC
Ralf Tolksdorf	43	Secretary of LTC
		Chief Financial Officer and Managing Director of GAIA
		Director of LTC
David J. Cade	67	Director of LTC
Ralph D. Ketchum	78	Director of LTC
Arif Maskatia	56	Director of LTC
Prof. Dr. Marnix A. Snijder	61	Director of LTC
		Supervisory Director of GAIA Holding

Supervisory Director of GAIA

Hendrikus Harold van Andel was appointed our Chairman on January 27, 2005. Mr. van Andel has served as our director since November 26, 2002. He has been the Chief Executive Officer of Arch Hill Capital since 1988. Mr. van Andel is the Chief Executive Officer and Executive Director of GAIA Holding and a member of the supervisory Board of Directors of GAIA. Mr. van Andel holds directorships in a number of Dutch and British private companies in which Arch Hill Capital has invested.

Andrew J. Manning, Ph.D. was appointed our President and Chief Operating Officer on June 20, 2005. Dr. Manning served as our Chief Technical Officer since January 22, 2003 and has served as our director since November 23, 2004. Previously Dr. Manning served as our

Executive Vice President of Operations from January 2001 to January 2002 and our Chief Operating Officer from January 2002 to November 26, 2002. Dr. Manning joined us in 1994 as Director of Process Development, and was Vice President of Manufacturing from October 1999 to January 2001. Dr. Manning also serves as a Managing Director of GAIA since November 18, 2004. Dr. Manning has over 25 years of experience in process development, process engineering, and new plan design and start-up. Dr. Manning has held various technology management positions in thin-film industries, including Director of Manufacturing Technologies at Congoleum, and Director of Research and Engineering for Tarkett, where he was responsible for process and equipment involving coating, saturation, lamination, and substrate handling. Dr. Manning has a broad technical

# **Table of Contents**

background, including polymers, non-woven, thermal processing and synthetic minerals. He has related experience at Celanese and Pfizer. Dr. Manning received both his Ph.D. and B.S. degrees in Chemical Engineering from Cornell University.

Dr. Klaus Brandt, Ph.D. was appointed our Executive Vice President on June 20, 2005. Dr. Brandt was appointed the Managing Director of GAIA on April 1, 2005. Prior to joining GAIA and LTC Dr. Brandt served as a member of the Executive Board (Vorstand) that was responsible for Technology and Manufacturing at the German based company Ionity AG (January 2, 2003 to March 15, 2005). From January 2, 1997 to December 31, 2002 Dr. Brandt was employed by The Gillette Company (U.S.A.) which is the parent company of Duracell, the world s largest manufacturer of alkaline batteries and other primary batteries for the consumer market. His tenure with Gillette entailed serving as Director of Advanced Materials and Processes of Duracell Worldwide Technology Center (January 2, 1997 to June 30, 2000) as well as Director of Portable Power, Gillette Advanced Technologies (July 1, 2000 to December 31, 2002). In 1992 Dr. Brandt joined Varta Battery AG (Germany), the leading battery manufacturer in Europe, where he served as Manager of Lithium Batteries at the Varta Research and Development center until 1996. While at Varta he was responsible for research and development of lithium ion batteries for both portable and electric vehicle applications. From 1978 to 1992 Dr. Brandt worked for Moli Energy Limited (Canada) which was a start-up company that grew out of the research efforts at the University of British Columbia and was the first company to commercialize rechargeable Lithium batteries in 1986. From 1977 to 1978 he served as a Doctoral Fellow in the Physics department at the University of British Columbia (Vancouver, Canada). Prior to this Dr. Brandt received his Doctorate of Natural Science from the Technical University of Munich in 1977 where he wrote his thesis on solid state physics. He received a physics diploma from the University of Goettingen in 1973 where he wrote his thesis on theoretical physics.

William F. Hackett was appointed our Executive Vice President and Chief Financial Officer and elected to the Board of Directors on June 20, 2005. Mr. Hackett has more than 25 years of business experience in finance and general management roles in information and technology related companies, including CEO of Healthcare Automation from November 2001 to October 2003 and CFO of CareGain from November 2003 to December 2004, Cirqit from October 2000 to October 2001, and Base Ten Systems from December 1997 to September 2000. Mr. Hackett also held executive positions with Bloomberg Financial Markets and The Dun & Bradstreet Corporation. He earned his Masters of Business Administration in Finance and Accounting from Columbia University Graduate School of Business in New York. Prior to attending Columbia, Mr. Hackett was an officer in the United States Navy where he qualified for the Surface Warfare Officer designation. Mr. Hackett holds an undergraduate degree from Holy Cross College in Worcester, Massachusetts.

Ralf Tolksdorf was appointed the Company s Secretary on June 20, 2005. Mr. Tolksdorf has served as our director since November 26, 2002. Mr. Tolksdorf also serves as the Chief Financial Officer of GAIA and is a Managing Director of GAIA. Mr. Tolksdorf served as our Chief Financial Officer from November 18, 2002 to June 25, 2004. He joined GAIA in November 2000, having previously served as a financial consultant to GAIA since December 1999. Mr. Tolksdorf is also President of his own consulting company, RTU Ralf Tolksdorf Unternehmensberatung GmbH in Buxtehude, Germany. Mr. Tolks