Distributed Energy Systems

2003 ANNUAL REPORT

WITH THE COMPLETION OF PROTON ENERGY SYSTEMS' ACQUISITION OF NORTHERN POWER SYSTEMS, A NEW, MORE POWERFUL ENTITY HAS EMERGED:

emerge

DISTRIBUTED ENERGY SYSTEMS. WE ARE BUILDING LONG-TERM SHAREHOLDER VALUE BY APPLYING OUR COMBINED RESOURCES AND EXPERIENCE TO ACCELERATE THE COMMERCIAL DEPLOYMENT OF HYDROGEN, AND TO DELIVER PRACTICAL SOLUTIONS FOR CRITICAL POWER AND FUELING APPLICATIONS IN THE EMERGING ENERGY LANDSCAPE.

DISTRIBUTED ENERGY SYSTEMS CORP. 2003 ANNUAL REPORT

TO OUR STAKEHOLDERS:

Distributed Energy Systems

2003 HIGHLIGHTS

PROTON ENERGY SYSTEMS

- Completed Northern Power Systems' acquisition and established Distributed Energy Systems Corp. (NASDAQ: DESC)
- Launched next-generation HOGEN® H Series and HOGEN® GC hydrogen generator product lines and attained new field reliability benchmarks
- Received recognition for Proton innovation at events promoting President Bush's $1.2 billion Freedom Car and Fuel initiative and California Governor Arnold Schwarzenegger's environmental platform
- Awarded fuel cell technology contracts by the Defense Advanced Research Projects Agency (DARPA), NASA, and U.S. Missile Defense Agency
- Secured 10 new Proton U.S. patents and 1 new European patent
- Delivered first hydrogen/renewable energy demonstration system to the U.S. Navy's China Lake air weapons station in collaboration with Northern

NORTHERN POWER SYSTEMS (pre-acquisition)

- Grew Northern revenue by 100 percent over 2002
- Expanded Northern's global industrial infrastructure business, supplying 26 new remote power systems to the Baku-Tbilisi-Ceyhan Pipeline project
- Commissioned high-profile Northern renewable systems, including on-site solar energy system for the world-renowned Woods Hole Research Center
- Secured Department of Energy (DOE) contracts for Northern's Mad River MicroGrid® power network and NorthWind® 100 wind turbine

The year 2003 was a truly transforming one for our company. At the operating level, Proton successfully resolved technical challenges affecting our hydrogen generators, introduced new products, and resumed sales momentum that had been interrupted in late 2002. At the strategic level, we acquired Northern Power Systems, a move that elevates our vision and financial strength.

elevate

A NEW NAME, A NEW OPPORTUNITY

When we completed the acquisition transaction in December, we created Distributed Energy Systems Corp., a new parent company that now holds Proton and Northern as operating subsidiaries. The new name is well suited to the potential of our combined companies and embodies our mission of harnessing distributed technologies to meet market needs.

Proton's proprietary products make hydrogen at lower cost and with significant safety benefits for today's industrial hydrogen customers. Northern designs, engineers, and builds power systems that provide cost savings, enhanced reliability, and reduced environmental impact.

COMMITTED TO ENERGY SUSTAINABILITY

As our world moves inevitably toward resource depletion and restrictions on harmful environmental emissions, the case for hydrogen as a fuel becomes ever more compelling. As the fuel for fuel cells, hydrogen has gained the attention of policy makers, environmentalists, and commercial entities worldwide. Fuel cells can make electricity without combustion, offering the promise of higher efficiency and reduced greenhouse gas emissions.

The hydrogen for these fuel cells comes from one of two sources: hydrocarbons or water. Proton's proprietary technology — Proton Exchange Membrane (PEM) electrolysis — enables hydrogen fuel to be made from water using only electricity to divide water into its oxygen and hydrogen elements.

With an understanding of this small chemistry lesson, the fit between Proton and Northern comes into focus. Northern specializes in making electric power, and when the electricity Northern provides to a Proton hydrogen generator comes from renewable sources such as wind or sunlight, we create the "perfect" fuel and the ultimate energy system for global sustainability: hydrogen made without pollution or resource depletion.

COMBINING EXPERTISE AND VISION FOR THE REAL WORLD

This vision is already being realized as we put our integrating and technology skills to work. Proton and Northern just completed one government contract for the U.S. Navy. We are now embarking on at least four others that involve making hydrogen from renewables and using that hydrogen in various energy applications.

PROTON: BACK ON TRACK

Beyond capitalizing on the synergy with its new sister company, Proton is making strong progress in a number of other ways.

First, we are now making cell stacks that are delivering the performance and reliability that our customers expect and deserve. Our products offer compelling value, with payback often in as little as two years.

Second, we are adding new high-value products such as our new HOGEN® H Series unit that produces up to six times the output of our HOGEN® 40 product, while selling for a little more than twice the price.

Third, we are controlling costs and improving yields. As a result, we now make positive gross margins on our current product mix.

Fourth, as our products attract new and repeat customers, Proton's sales outlook continues to improve. In fact, our initial 2004 sales outlook, measured by customer inquiries and verbal commitments, is extremely bright.

BRIDGING THE GAP TO THE HYDROGEN ECONOMY

Proton's accomplishments are amplified by the excitement we feel for the future. There is nothing modest about our vision for creating practical solutions to energy sustainability. Energy is far and away the largest commodity market in the world. But the costs of fuel cells, most renewables, and our hydrogen generators make it very difficult to compete commercially with today's fossil fuels.

The Northern acquisition helps us bridge the gap to the hydrogen economy. Northern's revenues in 2003 were six times those of Proton. Adding Northern's predictable engineering services margins to our financial mix is projected to help Distributed Energy Systems achieve its overall profitability objectives. Over time, we anticipate that Proton's manufacturing business will have the potential for even higher margins and revenue growth. Viewed in this context, each company adds important dimension to Distributed Energy Systems' shareholder value.

CREATING SHAREHOLDER VALUE THROUGH TECHNOLOGY DEVELOPMENT

Fuel cells are the game changer for our energy markets; Distributed Energy Systems brings the fueling infrastructure to the revolution. Around the globe, countries are increasing their commitments to financing and demonstrating fuel cells and hydrogen. Here in the United States, the federal government and some twenty states are involved in related initiatives.

Our view is that public financial support for fuel cell-related applications will continue to expand for at least the next several years. The proposed 38 percent hydrogen budget increase by the U.S. Department of Energy (DOE) for fiscal year 2005 supports this view. Well-publicized initiatives in California also promise highly visible progress toward the "Hydrogen Highway" to support fuel cell vehicles.

Considering this favorable outlook, while also recognizing that the commercial payoff for fuel cells is still several years away, Proton is shifting the funding basis of its energy-related R&D away from internal capital and toward external sources.

TRANSFORMING OUR VISION INTO REALITY

By combining Proton and Northern, we are advancing our vision of fuels from renewables. Having put the business and technology pieces together, our challenge in the year ahead is one of execution. We are planning for significant growth in all our commercial businesses. Progress against our near-term metrics will validate plans that address the most fundamental problems facing our energy markets, yielding greater public sector and investor interest in our company.

NEW TALENT, NEW BOARD MEMBERS

Thanks to the Northern acquisition, our organization has gained more than 100 talented and dedicated people, most of them engineers and applications specialists. Along with Clint Coleman, Northern's president, we have added two independent directors to the Distributed Energy Systems board: Paul Koeppe, founder of Superconductivity, Inc., and Ted Stern, retired senior vice president of Westinghouse.

Our 214 employees are committed to transforming opportunity into commercial success. We can't imagine a more important or exciting energy business plan than the one we are creating here at Distributed Energy Systems Corp.

Walter W. (Chip) Schroeder
President

PROTON ENERGY SYSTEMS




Proton
A Distributed Energy Systems Company

In a year marked by important organizational, technological, and strategic developments, Proton Energy Systems continued to evolve throughout 2003. Managing the challenge of change in a dynamic environment while continuing its organizational growth, Proton made improvements to the product production process and positioned itself for growth.

evolve

NEW PRODUCTS ADDRESS GROWING MARKET OPPORTUNITIES

Responding to market opportunities, Proton successfully completed the introduction of a new commercial product — the HOGEN® H Series hydrogen generator — that is built upon our existing PEM core technology.

Launched in December, the product expands the capacity range of the HOGEN® product line by a factor of six. As a result, the H Series provides a product platform to address industrial gas, semiconductor, heat-treating, and hydrogen fueling requirements and meets the specific needs of the power plant generator coolant market.

As part of the product rollout, new H Series units are in the field undergoing final acceptance testing. In addition, firm H Series orders are beginning to emerge from our established sales channels with deliveries scheduled for mid-2004.

DELIVERING DRAMATIC COST SAVINGS

A demonstrated low-cost and safer alternative to delivered hydrogen, Proton's HOGEN® hydrogen generators provide up to a 60–90 percent operating cost saving over cylinders. The design of Proton's PEM electrolysis systems enables the product to supply hydrogen in a wide array of applications to a variety of markets today served by cylinders and tube trailers.

Aiming to deliver world-class service metrics, Proton is penetrating these markets with products that provide reliable uptime performance. Within these markets, we are also reaching new levels of sales intensification with our existing products. Proton's customers know that our products offer industry-leading features in safety, reliability, and service.

Proton's technology continues to improve through the work of its Hydrogen Technologies Group, which targets funding from government and other third-party sectors for cost reduction activities, alternative applications for PEM, and technology demonstrations in different market segments such as fueling, power reliability, and renewable energy storage.

STRENGTHENING THE CHANNEL TO MARKET

To support revenue achievement and to improve productivity, Proton strengthened its avenue to market by creating a fully integrated sales force of direct sales representatives coupled with dedicated manufacturer representatives.

Proton established distributor and agent relationships serving end users in the United States, the United Kingdom, Western and Eastern Europe, China, Japan, and Mexico. Additionally, in 2003, Proton established relationships with approximately 25 manufacturer and equipment representatives who intend to sell the HOGEN® 40 and H Series generators into the U.S. power plant market. Further, Proton instituted relationships with some 15 manufacturer and equipment representatives serving the U.S. and Canadian laboratory markets for the HOGEN® GC and HOGEN® 40 hydrogen generator products.

Proton plans to establish additional sales and distribution arrangements with major channel partners in both the United States and international markets, as well as set forth applications in other industries including semiconductor manufacturing and heat-treating.

Focused on targeted markets, this stronger sales organization provides an expanded channel for Proton to launch its commercial products business with a full line of products, providing customers with a compelling value proposition and highly attractive return on their investment.

Pictured above (l to r): John Torrance, manager, manufacturing; John Zagaza, director, engineering; Chip Schroeder, president.

A BRIGHT OUTLOOK: BY APPLYING THE KNOWLEDGE GAINED THROUGH THE PROCESS OF PRODUCT COMMERCIALIZATION, AND SEEKING GREATER INSIGHT INTO THE NEEDS OF OUR CUSTOMERS, PROTON CONTINUES TO PROVIDE REAL VALUE TO THE MARKETPLACE. THE DEVELOPMENT AND LAUNCH OF THE HOGEN® H SERIES PRODUCT, NOW IN PRODUCTION AT OUR WALLINGFORD MANUFACTURING FACILITY, AND THE EXPANSION AND MATURING OF THE SALES ORGANIZATION SUGGEST A STRONG OUTLOOK FOR 2004 AND BEYOND.

PROTON'S HYDROGEN GENERATORS SERVE NUMEROUS CURRENT AND EMERGING MARKETS, INCLUDING:

- PROCESS ATMOSPHERES FOR HEAT TREATING AND MATERIALS PROCESSING
- RESEARCH LABORATORIES
- ELECTRIC GENERATOR COOLING, CYLINDER AND TUBE TRAILER REPLACEMENT
- SUSTAINABLE POWER

Pictured at top of page: HOGEN® RE, HOGEN® H Series, HOGEN® 40, HOGEN® GC hydrogen generators

NORTHERN POWER SYSTEMS




Northern
A Distributed Energy Systems Company

As today's energy landscape continues to dramatically shift due to the challenges of utility-delivered power and growing concerns over the environment, Northern Power Systems is emerging as a global market leader, offering reliable and cost-effective power alternatives for commercial, industrial, and government entities.

empower

DELIVERING POWER INDEPENDENCE

In 2003, Northern continued its 30-year history of designing, building, and installing value-engineered power systems that empower businesses and provide them with a strategic asset: power independence.

BLENDING POWER TECHNOLOGIES AND ENERGY SOURCES INTO TAILORED SOLUTIONS

An open-technology provider of power solutions, Northern draws upon its extensive systems knowledge to blend appropriate energy sources — wind, sunlight, hydrogen, biogas, natural gas, and oil — with state-of-the-art controls and power electronics in systems tailored to each customer's unique needs. Whether the objective is to reduce operating expenses, mitigate risk, or reduce pollution, Northern systems offer highly attractive returns on investment.

2003 PROJECT HIGHLIGHTS

Northern's on-site power systems generate reliable, efficient, high-quality, and cost-effective power at or near the point of use for a wide range of applications.

ADVANCED ON-SITE POWER SYSTEMS

One such on-site installation is the 26.4 kW photovoltaic (PV) system Northern completed for Woods Hole Research Center on Cape Cod, Massachusetts. Commissioned in mid-2003, the combination PV array and monitoring system is enabling the research center to annually generate almost 37,000 kWh of completely renewable electricity, making it one of New England's premier green-powered facilities.

Nonrenewable systems can still achieve environmental benefits through dramatically increased efficiency. A case in point is the 1.5 MW on-site power system Northern installed at Equity Office's One Market Street office complex in downtown San Francisco. The new system is among the first on-site power systems to be interconnected to Pacific Gas & Electric's coveted downtown utility grid.

By maximizing the use of the waste heat from the generators in this combined heat and power (CHP) system, the design uses thermal energy from on-site generation to displace natural gas previously purchased for the boiler to heat the building. This efficient system design provides a fuel efficiency of up to 78 percent, as opposed to 30 percent delivered efficiency typically found in grid power.

PROVIDING CRITICAL POWER TO INDUSTRY AROUND THE WORLD

Not all installations have the benefit of grid-supplied power. For these applications, Northern supplies integrated power systems that provide high-quality, reliable power for industrial infrastructure and isolated remote installations.

In 2003, Northern was commissioned to provide 37 integrated power systems for the 690-kilometer Azerbaijan and Georgian sections of the Baku-Tbilisi-Ceyhan (BTC) Pipeline project, one of the largest in the world. The project uses a combination of Northern's TeleCycle® power systems, which provide off-grid power, and GridTie® power systems, which ensure grid-connected backup power for critical load applications.

THE NORTHERN APPROACH

Northern's high-value turnkey systems approach is complete and comprehensive. It includes site analysis; project and financial assessments; engineering studies; metering and data collection; system engineering and design; equipment procurement; system construction and site preparation; installation, commissioning, and training; monitoring and control; as well as ongoing maintenance to ensure continuous systems operation.

With close to 800 systems installed in 45 countries on all continents, Northern Power Systems will continue to solve complex logistical problems and handle difficult site constraints that other firms cannot address, setting industry standards in satisfying critical needs and exceeding customer expectations.

Pictured above (l to r): Michael Brennan, vice president, industrial infrastructure business; Darren Jamison, executive vice president, operations; Clint (Jito) Coleman, president

HARNESSING THE WIND WITH INNOVATION: AMONG THE PROJECTS UNDER ONGOING DEVELOPMENT AT NORTHERN'S ENERGY TECHNOLOGY LABORATORY (ETL) IS THE NORTHWIND® 100 WIND TURBINE. AWARDED R&D MAGAZINE'S PRESTIGIOUS "R&D 100 AWARD" FOR INNOVATIVE TECHNOLOGY, THE 100 KW DIRECT DRIVE TURBINE WAS DEVELOPED IN CONJUNCTION WITH NASA, THE NATIONAL SCIENCE FOUNDATION, AND THE DOE TO MEET THE NEEDS OF REMOTE AND ISOLATED DISTRIBUTION GRIDS LOCATED IN EXTREME ENVIRONMENTS.

NORTHERN FULFILLS CUSTOMER POWER NEEDS IN A VARIETY OF VIBRANT MARKETS AND INDUSTRIES, INCLUDING:

- DISTRIBUTED GENERATION
- INDUSTRIAL INFRASTRUCTURE
- MANUFACTURING
- COMMERCIAL AND INSTITUTIONAL FACILITIES
- REMOTE INSTALLATIONS

New product development is the lifeblood of all technology companies. At Distributed Energy Systems, our commitment to this critical function is fundamental to our business philosophy, enabling us to stay at the forefront of energy technology, capturing the loyalty of customers and the attention of partners. We have an environment in which ideas become solutions, genius flourishes, and breakthroughs become the norm.

enhance

PROTON'S HYDROGEN TECHNOLOGY GROUP

At the core of Proton's technology is PEM electrolysis, the process that divides water into its purest components to produce hydrogen fuel. With a skilled group of engineers and the commitment of capital resources necessary for research and innovation, Proton's Distributed Hydrogen Technologies group is working to build upon core PEM technology, and to keep current and emerging products at the leading edge. Due to enhancements of current technology, Proton is positioning its products for future markets, including hydrogen-based premium backup power, renewable energy storage, and transportation fuel.

In 2003, Proton's Distributed Hydrogen Technologies group received six contracts totaling over $3 million to apply its PEM-based technology to pioneering projects around the world, ranging from backup power demonstrations to satellite fueling projects and space applications.

PREMIUM BACKUP POWER

Proton's UNIGEN® Regenerative Fuel Cell (RFC) technology uses stored hydrogen, produced from PEM electrolysis, to generate electricity on demand.

Proton's premium backup power group completed the design, build, and test of its fifth-generation UNIGEN® backup power units under the DOE's State Energy Program, with additional development support from the Connecticut Clean Energy Fund.

In the first quarter of 2004, Proton plans to site the UNIGEN® system at the Mohegan Sun gaming and entertainment destination to demonstrate clean, reliable backup power.

FUEL TO POWER VEHICLES

Among the most exciting uses of PEM electrolysis is in transportation — producing hydrogen as a fuel to power vehicles. As fuel cell vehicles (FCVs) come to market, we believe that existing energy suppliers will need to supply new forms of automotive fuel. Accordingly, Proton intends to establish relationships with major energy companies to explore ways of supplying its hydrogen generators for installation at local service stations. We also believe that automobile manufacturers providing introductory and fleet FCVs will also be interested in Proton's fueling technology.

In 2003, the University of Nevada Las Vegas Research Foundation awarded Proton a contract to deliver a solar-powered hydrogen system that will demonstrate a pathway to zero-emissions hydrogen fueling. Proton will design, build, integrate, and commission the hydrogen system utilizing its HOGEN® RE hydrogen generator coupled to a compressor, storage, and dispensing module.

FUEL CELLS IN SPACE

From NASA, Proton received a Small Business Innovative Research (SBIR) Phase II contract and an SBIR Phase I contract from the U.S. Army Missile Defense Agency for the development of lightweight unitized regenerative fuel cell hardware to meet the needs of aerospace applications.

These contract programs, as well as the ongoing contract with the Naval Research Laboratory funded by DARPA, are intended to demonstrate zero gravity unitized regenerative fuel cell operation as well as the ability to electrolyze water to generate hydrogen and oxygen gases at pressures exceeding 3,000 psi using Proton's HIPRESS™ solid-state electrolysis cell stack design.

NORTHERN'S POWER TECHNOLOGY GROUP

Proton's technological expertise and commitment to research and development are mirrored at Northern's Power Technology Group and its Energy Technology Laboratory (ETL). As Northern's applied research and technology development center, the mission of the ETL is to keep Northern a technology leader in its target markets, to advance the state of the art for industrial on-site and integrated power and distributed generation systems, and to develop technologies and application solutions in concert with Proton and its strategic partners.

Created in 2001, the Power Technology Group is a dedicated team of experts with core competencies in advanced distributed generation systems, power electronics, advanced industrial automation and control, SCADA systems, and wind turbine technology. The team leverages these capabilities — as well as Northern's extensive history in systems integration — to create key technology and products.

For example, under contract to DOE, the ETL is developing an advanced 1.5 MW drive train prototype for the MW class wind turbine market. Scheduled for testing in mid-2004 at the National Wind Technology Center in Boulder, Colorado, the drive train is based on a direct-drive, permanent magnet (DDPM) generator directly coupled to the turbine rotor, and connected to the utility grid through a high-performance power converter. This configuration shows great promise for increasing reliability and reducing the cost of energy for MW class turbines.

PROMOTING THE GROWTH OF ADVANCED ENERGY MARKETS

To promote the growth of the advanced energy markets, the ETL serves as a testing facility and showcase for the products and services of Northern and its strategic partners. The facility also includes a planned demonstration center that will give Northern the ability to quickly construct various hybrid power system configurations both for internal testing and for real-world verification of performance and capabilities.

MICROGRID® POWER NETWORK

The Power Technology Group is currently in the process of completing a custom-designed, utility-connected MicroGrid® power network within the area known as Mad River Park in Waitsfield, Vermont. Undertaken with the support of the DOE, this first-of-its-kind energy generation, storage, and distribution power network will provide dramatically increased power quality and reliability to residences and businesses (including Northern's newly constructed headquarters facility) located in the park. The system will feature multiple generation and storage devices, and will be connected to 5 commercial and industrial facilities in the industrial park, and up to 12 surrounding residences within the local utility service area.

STAYING AT THE FOREFRONT OF INNOVATION

Through the research and development arms of its Proton and Northern operating units, Distributed Energy Systems will remain at the forefront of innovation, enhancing our offerings and applying our expertise to create market-responsive products and solutions in 2004 and beyond.

Pictured above (l to r): Rob Friedland, Proton senior vice president, Hydrogen Technology Group; Jonathan Lynch, Northern chief technology officer, Power Technology Group

Pictured at top of page: Proton UNIGEN® regenerative fuel cell system

DISTRIBUTED ENERGY MARKETS

Amid growing concern over the environment, the security and availability of fossil fuels, the reliability of the electrical grid, and the aging T&D infrastructure, the importance of reliable, cost-effective, and secure power is driving the emergence of a new, increasingly decentralized energy model: distributed energy.

engage

One manifestation of this changing paradigm is the growth of distributed generation (DG). Rather than generating and transmitting power from large, remote central power plants, DG means producing the electricity close to the user. Over the last few decades, DG has become a viable and cost-effective strategy for generating highly efficient, clean, full-time power on site from a range of technologies — turbines, engines, fuel cells, photovoltaic panels — powered by natural gas, biogas, propane, hydrogen, and solar and wind energy.

With Proton's ready-today hydrogen generating and storage technology and Northern's broad expertise in integrating energy sources and power technologies, Distributed Energy Systems is uniquely positioned to engage this broader distributed energy marketplace.

Working in 2003 with Northern Power Systems, Proton was commissioned to develop a 1 kW regenerative solar/PEM fuel cell demonstration system to support testing at the U.S. Naval Air Weapons Station, a remote desert test range located in China Lake, California. The Proton UNIGEN® system demonstrates the ability to eliminate energy storing batteries, bringing pure power to the off-the-grid telecommunication installation.

Combining Proton's hydrogen generation and energy storage technologies with Northern's ultra-reliable, flexible, turnkey power systems, systems integration, and engineering services completes the vision of making fuel from renewable power. Hydrogen, made from renewably generated power, can be stored, enabling subsequent use as a fuel for distributed generation fuel cell applications and, ultimately, as the fuel for fuel cell vehicles.

We believe that this combination provides investors with one of the most focused investment opportunities to address the rapidly emerging distributed energy market.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTIONS 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

☒ **FOR ANNUAL AND TRANSITION REPORTS PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2003

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 000-50453

DISTRIBUTED ENERGY SYSTEMS CORP.
(Exact name of Registrant as specified in its charter)

Delaware	**20-0177690**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

10 TECHNOLOGY DRIVE, WALLINGFORD, CT 06492
(Address of principal executive offices)

Registrant's telephone number, including area code (203) 678-2000

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

None

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

Common Stock, $.01 par value

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

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

Indicate by check mark whether the Registration is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes ☒ No ☐

The aggregate market value of the voting stock held by non-affiliates of the Registrant on June 30, 2003 was approximately $60 million based on the price of the last reported sale as reported by The Nasdaq Stock Market on June 30, 2003 . The number of shares outstanding of the Registrant's Common Stock on March 3, 2004 was 35,377,082.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement in connection with the annual meeting of the stockholders to be held on June 2, 2004 are incorporated by reference in Part III hereof.

Distributed Energy Systems Corp.

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This report contains forward-looking statements for purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Statements contained herein that are not statements of historical fact may be deemed to be forward-looking information. Without limiting the foregoing, words such as "anticipates," "believes," "could," "estimate," "expect," "intend," "may," "might," "should," "will," and "would" and other forms of these words or similar words are intended to identify forward-looking information. You should read these statements carefully, because Distributed Energy Systems Corp.'s actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors. We disclaim any obligation to update these forward-looking statements. Our actual results could differ significantly from those anticipated in these forward looking statements as a result of certain factors, including those set forth below under "Legal Proceedings", "Management's Discussion and Analysis of Financial Condition and Results of Operations—Certain Factors That May Affect Future Results", and critical accounting policies set forth below under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies." You should also carefully review the risks outlined in other documents that we file from time to time with the Securities and Exchange Commission, including our Quarterly Reports on Form 10-Q that we file in 2004.

ITEM 1. *Business*

General

The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, and other periodic filings are available free of charge through the Investors section of the Company's Internet website (http://www.distributed-energy.com) as soon as practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission.

On December 10, 2003, subsidiaries of Distributed energy Systems Corp. ("Distributed Energy") were merged into Proton Energy Systems, Inc. ("Proton") and Northern Power Systems, Inc. ("Northern"). The merger was accounted for as a purchase of Northern by Distributed Energy. The consolidated financial statements for years prior to 2003 presented in this annual report Form 10-K are Proton's consolidated financial statements.

Distributed Energy's Business

Formed in May 2003, Distributed Energy is creating and delivering products and solutions to the new energy marketplace, giving users greater control over their energy cost, quality, and reliability. Distributed Energy was formed as the parent company of two established businesses: Proton and Northern. Proton develops advanced technology related to hydrogen production and fuel cell applications. Northern designs and integrates projects that meet critical energy needs with an array of proven technologies, including renewables, advanced combustion and batteries. Distributed Energy believes the acquisition of Northern's project integration experience will strengthen Proton's near-term capabilities, accelerate entry into early energy-related markets and contribute to advancing Proton's vision of producing hydrogen from renewable sources. The combined companies offer small-scale, on-site energy and industrial gas solutions. As Distributed Energy operating units, Proton and Northern are delivering practical energy solutions and the business platforms for capitalizing on the changing energy landscape. In the longer term, Distributed Energy may identify and fund other initiatives, implementing new strategic acquisitions, joint ventures, and alliances that meet emerging customer and investor needs.

Proton's Business

The Company

Proton was founded in 1996 to design, develop and manufacture proton exchange membrane, or PEM, electrochemical products. Proton's proprietary PEM technology is embodied in two families of products: hydrogen generators and regenerative fuel cell systems. Proton's hydrogen generators produce hydrogen from electricity and water in a clean and efficient process. Proton is currently manufacturing and delivering models of its hydrogen generators to customers for use in commercial applications. Proton's regenerative fuel cell systems, currently being developed, will combine Proton's hydrogen generation technology with a fuel cell power generator to create an energy device that is able to produce and store hydrogen fuel that it can later use to generate electricity. By providing the hydrogen fuel used by fuel cells, Proton's core PEM electrolysis technology can enable fuel cells to function not only as power generating devices, but also as energy storage devices.

Proton is designing its products to meet the needs of customers in both near-term and longer-term markets. Proton's hydrogen generators have been designed to address the existing demand for industrial hydrogen in a variety of manufacturing, power plant, research and laboratory applications, which Proton believes are more cost effectively and safely served with an on-site generator as opposed to conventionally delivered bottled hydrogen. In the longer term, as fuel cell markets develop, Proton believes its hydrogen generators can be a key component of the hydrogen supply infrastructure that will be needed to provide the hydrogen used by fuel cells in transportation, stationary power generation and portable power generation applications. Proton is developing its regenerative fuel cell systems to address the demand for highly reliable backup power systems. In particular, the increased use of computers, computer networks and communications networks are all creating an increase in the demand for highly reliable backup power to avoid the costs and lost revenue associated with power disruptions. In addition, Proton believes that in the longer term its regenerative fuel cell systems may enable renewable energy solutions by facilitating the storage of energy produced by non-depleting, non-polluting energy sources, such as solar, wind and hydroelectric power.

Proton believes it is among the first companies to manufacture and deliver systems incorporating PEM technology for use in commercial applications. Proton has delivered HOGEN 40 and GC series hydrogen generators to domestic and international customers for use in industrial and research applications. Proton's cell stacks, an important component of its generators, have in some cases suffered from limited life and reliability problems and have required replacement in the field. In 2003, Proton worked to improve its stack design and manufacturing processes to increase the longevity and reliability of its cell stacks and to replace cell stacks in customer units. Although production and shipment of HOGEN® 40 series hydrogen generators was suspended for a portion of 2003, production and shipment of these units resumed in the second quarter of 2003. Proton now believes its current cell stack design will meet the reliability and product life requirement of its industrial markets.

Proton has delivered one late-stage development HOGEN® H series hydrogen generator for field trials intended for use in power plant and other industrial applications requiring higher hydrogen output. These units can be sized to produce various outputs in the 80 to 240 standard cubic feet range. Proton intends to continue development of this product in 2004 and deliver additional units for demonstrations and commercial applications.

In the longer term, Proton believes its PEM hydrogen generation technology will be an important part of the infrastructure needed to provide hydrogen for fuel cell vehicles. Proton research and product development efforts include the development of the FUELGEN high-pressure hydrogen generator, capable of providing hydrogen for a fuel cell vehicle. This product will be based on Proton's industrial hydrogen generator platform and Proton anticipates the majority of product development funding to come from government or other third party sources. Proton's goal for 2004 is to begin field trial testing of early fueling prototypes to gather important technical data in real world applications.

Proton also intends to further develop applications for its UNIGEN regenerative fuel cell technology. Proton has built regenerative fuel cell systems for the DOE/SEP Program, NASA and the Naval Research Laboratory as

well as for internal research and product development programs. Proton's goal for 2004 is to continue advancing the technology through demonstration programs funded by government and other third party sources. These systems are being designed to have the scale and technical attributes necessary to serve a broad range of commercial applications.

Government and private development contracts have supported the development and commercialization of our hydrogen generators and regenerative fuel cell systems. Proton intends to continue to seek government and other third party support to fund the majority of its FUELGEN, and UNIGEN design and product development work. Proton has ongoing development contracts in 2004 with the Connecticut Clean Energy Fund, the Missile Defense Agency, DARPA, NASA, and the Department of Energy.

Proton has a 100,000 square foot facility in Wallingford, Connecticut, which is projected to accommodate the anticipated growth of its business over the next several years. This building consolidates the corporate headquarters of Distributed Energy, as well as Proton's research, product development, and manufacturing activities.

Products

Hydrogen Generators. Proton's HOGEN hydrogen generators convert water and electricity into high purity, pressurized hydrogen gas, using PEM electrolysis. PEM electrolysis is a process in which water is divided into its component elements to produce pure hydrogen gas, with oxygen and heat as the only by-products. Many users can connect Proton's hydrogen generators directly to existing water and electrical sources, allowing them to be installed and used in a wide range of locations.

Proton has shipped commercial models of its HOGEN GC and HOGEN 40 series hydrogen generators with production capacities from 300 cc per minute up to 40 cubic feet per hour of hydrogen, and has begun to deliver demonstration units of its HOGEN H series generators with 80 to 240 cubic feet per hour capacity. Proton's HOGEN 40 units are freestanding, roughly the size of a household washing machine, and are intended for indoor placement. Proton's HOGEN GC series hydrogen generators are compact, about the size of a personal computer, and designed to sit on a countertop for use in laboratory applications. Proton's HOGEN H series hydrogen generator is a larger freestanding unit with a weatherized design suitable for indoor or outdoor placement. Proton intends to increase production of its commercial HOGEN 40 and GC series hydrogen generators in 2004. Proton also intends to deliver additional HOGEN H series units for demonstration and commercial applications in 2004.

Proton is currently developing FUELGEN high-pressure hydrogen generation modules capable of supplying the hydrogen fueling needs of fuel cell vehicles and other hydrogen power applications. Proton anticipates the FUELGEN to be largely based on the designs of Proton's industrial hydrogen generators. These generators will be appropriately scaled and designed to operate at typical gas station locations using ordinary water and electricity. Proton will continue development and testing of this product in 2004, mostly under government or third party sponsorship.

An important feature of Proton's hydrogen production technology is the ability to produce hydrogen at pressure without mechanical compression. Proton's current commercial products produce hydrogen at pressures up to 200 psi. Proton's prototype HIPRESS PEM cell stack designs have produced high-purity hydrogen at pressures up to 3,000 psi without mechanical compression using solid state compression within the electrochemical cell stack. Proton plans to continue research and development of high-pressure cell stack technology for potential use in current and future products as market conditions dictate.

The cost of manufacturing Proton's PEM cell stacks and hydrogen generators is still relatively high and Proton expects to continue to invest in internal research and product development to reduce costs. Proton currently sells commercial units into high value applications requiring industrial hydrogen. Proton believes higher volumes, cheaper materials, more refined production processes, as well as other potential technologies, will enable it to reduce the cost of its cell stack and hydrogen generators. As Proton reduces its costs, it believes its products will become competitive in additional applications and markets.

Regenerative Fuel Cell Systems. The UNIGEN regenerative fuel cell systems Proton is developing will integrate Proton's core PEM hydrogen generation technology with PEM fuel cell technology to create a power quality device that produces hydrogen from water and electricity, stores the hydrogen, and later uses the hydrogen as fuel for the production of electricity. In the hydrogen generation or electrolysis mode, the regenerative fuel cell works like a hydrogen generator, producing hydrogen, which is stored. In the power generation or fuel cell mode, the process is reversed and the stored hydrogen is combined with air to produce electricity efficiently and without any harmful by-products. Proton's regenerative fuel cell architecture is capable of using fuel cells produced by other developers and manufacturers to enable their fuel cells to become energy storage devices.

Proton has several development and demonstration programs with potential customers including Marconi Communications and the Connecticut Clean Energy Fund to show the potential applications of the UNIGEN product. Proton believes early applications for this product will be in remote locations and high value backup power applications. The success of this product will depend, among other things, upon continued development and cost reduction by Proton and other fuel cell developers. Proton expects to continue research and product development of these systems and will seek to have government and third party sources fund the majority of the development.

Proton's Strategy

Proton's objective is to be a leader in harnessing PEM electrolysis technology for a number of commercial applications. Proton's strategy for achieving this objective includes the following elements:

Leverage Technological Position. In developing PEM technology, Proton has focused on two key areas: the development of PEM hydrogen generators and the development of regenerative fuel cell systems. Proton believes these technologies provide it with the opportunity to develop innovative products that address attractive markets. In addition, Proton's technology is complementary to other fuel cell technologies and could enable the commercial use of other fuel cell products, such as vehicular fuel cells, by providing a hydrogen delivery infrastructure. For example, Proton's hydrogen generators could be deployed at fueling sites to provide hydrogen for fuel cell vehicle fleets. As a result, Proton believes it is also well positioned to benefit from further developments by other fuel cell developers and from increases in demand for their fuel cell products. Proton intends to maintain its technology leadership in PEM-based hydrogen generation and regenerative fuel cell system technology by continuing to develop its core technology and commercial manufacturing processes, reduce product cost, and improve the design and features of its products.

Focus on Near-Term Market Opportunities. Proton believes it is among the first companies to manufacture and deliver systems incorporating PEM technology for use in commercial applications. Proton intends to focus on designing and marketing its hydrogen generation products for near-term industrial applications. Proton believes the industrial gas market is an attractive market because it is well developed and Proton's hydrogen generator products offer cost, security, and safety advantages to users that currently rely on conventionally delivered hydrogen. Proton's focus on near-term market opportunities will continue to reinforce Proton's emphasis on the commercial application of PEM technology.

Proton will also focus on demonstration and research opportunities from interested third party and government sources for our regenerative fuel cells and FUELGEN hydrogen generators. These opportunities help advance Proton's technology and, in some cases, provide field test experience.

Continued Focus on Cost Reduction and Cell Stack Durability. Given Proton's focus on commercial applications for PEM technology, design and manufacturing improvements are a critical element of Proton's product development efforts. The cost of manufacturing Proton's PEM cell stacks and hydrogen generators is still relatively high. Proton intends to continue to focus on reducing the cost of manufacturing its products through the simplification of product designs, identification and use of lower cost materials and components, development of long-term relationships with third-party component and raw material suppliers, use of new technologies and processes, and lean manufacturing processes and techniques.

The durability and longevity of Proton's cell stacks are also critical success factors. Proton's cell stacks have in many cases suffered from limited life and reliability problems and have required replacement in the field. Proton now believes its current cell stack design will meet the reliability and product life requirement of its industrial markets. Proton plans to focus on improving cell stack designs and manufacturing processes to increase the endurance and reliability of its commercial hydrogen generators.

Develop Key Strategic Relationships. Proton is beginning to establish strategic relationships with leading companies in its target markets. The strategic relationships Proton develops may include joint development efforts as well as sales and marketing agreements. At present, Proton is in preliminary discussions with potential partners, including industrial gas suppliers and distributors, energy producers, fuel cell manufacturers, system integrators and ancillary component manufacturers. In seeking to develop strategic relationships, Proton will focus on partners that can provide it with distribution channels for its products and assist Proton in the design, development and manufacture of new products. Proton believes that its demonstrated capabilities in PEM technology and its focus on creating commercial applications make Proton an attractive potential partner for many established companies seeking to gain access to PEM related technology.

Position Technology for Longer-Term Opportunities. Proton believes it is well positioned to take advantage of growth in the markets for fuel cell applications and renewable energy technologies. If fuel cell applications achieve commercial acceptance, Proton's hydrogen generators can be a key component of the hydrogen supply infrastructure that will be required. Proton intends to work with leading energy and power companies to position its hydrogen generators for automotive fueling applications. Accordingly, Proton plans to work with renewable energy companies to explore and develop energy storage applications using our regenerative fuel cell architecture. Proton has modified several demonstration units of its HOGEN generators to operate using intermittent electricity from renewable energy sources, this will position Proton for future renewable/sustainable power markets.

Technology

PEM-Based Hydrogen Generators. Proton's hydrogen generators are electrochemical devices that convert water and electricity into hydrogen gas using a process known as PEM electrolysis. The core of a hydrogen generator is an electrolysis cell consisting of a solid electrolyte, also known as a proton exchange membrane. Catalyst material is bonded to both sides of the membrane, forming two electrodes. To generate hydrogen, water is introduced to one side of the membrane and voltage is applied to the electrodes. This process divides the water into protons, electrons and oxygen. The protons are drawn through the proton exchange membrane and recombined with the electrons at the opposite side of the membrane to form hydrogen. The oxygen is removed from the cells with the excess water flow. This process produces hydrogen with a high level of purity and at significant pressures.

A single electrolysis cell is typically integrated into a complete cell assembly that includes flow field structures that provide mechanical support, conduct current and provide a means to introduce water and remove gases. These cell assemblies are stacked and compressed between two end plates along with other support components to form a complete cell stack. The hydrogen production capability of a cell stack is approximately proportional to the area of each cell, the number of cells in the stack and the electric current supplied.

PEM-Based Fuel Cell Power Generators. In a PEM fuel cell, which is very similar to Proton's PEM electrolysis cell, the opposite reaction occurs. To generate electricity, hydrogen and air, or oxygen, are introduced to opposite sides of the cell. The hydrogen passes over an electrode structure adjacent to the proton exchange membrane, where it is divided into its component protons and electrons. When the electrons are separated from the protons, the electrons are conducted in the form of a usable electric current. The protons travel through the proton exchange membrane and recombine with the electrons and oxygen to produce water.

To form a complete fuel cell stack, individual PEM fuel cells are stacked and compressed between two end plates. The electrical power production capability of a cell stack is approximately proportional to the area of each cell and the number of cells in the stack. In applications requiring stand-alone one-way fuel cells, Proton is testing fuel cells supplied by third parties.

Proton's regenerative fuel cell systems incorporate the ability to support both an electrolysis reaction and a fuel cell reaction. Proton's proprietary design operates in the electrolysis mode by using water and electricity to generate hydrogen at elevated pressure and then reverses the process and consumes the hydrogen with air to generate electricity. The resulting product functions like a rechargeable battery in which hydrogen is produced through electrolysis, stored and then used for power generation. Because Proton's regenerative fuel cell systems use hydrogen produced through electrolysis rather than extracted from hydrocarbon fuels, electricity can be produced at room temperature, without lengthy start-up times or carbon-based emissions and in areas where fossil fuels such as natural gas, propane or gasoline are not available.

Proton's regenerative fuel cell systems can be configured using one or two PEM stacks. The one-stack approach uses Proton's proprietary design, which allows a single cell to operate alternately in both the electrolysis mode and the fuel cell modes. These reversible fuel cells are under development by Proton and may have cost and weight advantages over a discrete system. Proton's two-stack regenerative fuel cell system is configured by using separate cell stacks for the electrolysis and fuel cell reaction. Proton currently manufactures its own electrolysis stacks for testing in these systems. Proton is testing fuel cell stacks from other fuel cell developers for potential incorporation into its regenerative systems.

Proprietary Technology

Proton has developed proprietary technology relating to various aspects of its electrolysis cells, regenerative fuel cell systems and related systems. These include:

- membrane processing technology,
- electrolysis catalytic electrode formulation reversible fuel cells,
- fuel cell stack designs that operate on pure oxygen with no purge,
- high-pressure cell structures that simplify overall system implementation,
- integrated system designs for both hydrogen generators and regenerative fuel cell system,
- multiple stack generator configurations that allow for expandable generation platforms, and
- electrical interface to renewable technologies for hydrogen generators

Distribution and Marketing

Proton plans to sell its hydrogen generators primarily through a combination of distribution arrangements with third parties and direct sales by Proton personnel. Proton's hydrogen generators are appropriate for small and medium volume hydrogen users. Proton is focusing its sales and marketing efforts on the channels that these customers use to purchase their gases and equipment. Proton has established distributor and agent relationships serving end users in the US, UK, Western and Eastern Europe, China, Japan and Mexico. Additionally, Proton has established relationships with approximately 25 manufacture and equipment representatives that sell the HOGEN 40 and H-Series generators into the US power plant market. Proton has established relationships with approximately 15 manufacturing and equipment representatives for the US and Canadian laboratory market for the HOGEN GC and HOGEN 40 hydrogen generator products. Proton intends to establish additional sales and distribution arrangements with industrial gas suppliers and distributors, as well as original equipment manufacturers.

As the market to supply hydrogen fuel for fuel cell vehicles develops, Proton also plans, where possible, to leverage existing distribution channels. Proton believes that existing energy suppliers will need to begin supplying new forms of automotive fuel as fuel cell vehicles ("FCVs") come to market. Accordingly, Proton intends to establish relationships with major energy companies to explore ways of supplying its hydrogen generators for installation at local service stations. In addition, Proton believes that automobile manufacturers providing introductory and fleet FCVs will be interested in Proton's refueling technology and therefore Proton will seek to establish relationships with these manufacturers.

Currently, backup power equipment is sold by a few large manufacturers to commercial end users through diverse reseller networks, including integrators and qualified resellers. In the future, Proton plans to sell its backup power products to these existing manufacturers, integrators and qualified resellers.

Manufacturing

Proton is currently manufacturing hydrogen generators at its facility in Wallingford, Connecticut. Key aspects of this process include formulation of Proton's proprietary catalysts, deposition of the catalyst on the proton exchange membrane and fabrication of cells into cell stacks. The balance of the manufacturing process consists of integrating cell stacks into systems that perform fluids and electrical management of the electrochemical process.

Proton purchases raw proton exchange membrane material from Dupont, although Proton has identified other companies it believes are capable of providing suitable membrane material. Proton purchases the other components used in its systems from third-party suppliers. Proton regularly consults with its suppliers to evaluate ways to lower the cost of other components or subassemblies while meeting the performance needs of its products. In this regard, Proton has considered and will continue to evaluate the option of having subassemblies that it currently produces in-house produced to its specifications by others if lower costs can be achieved.

In 2003, Proton successfully completed its annual ISO audit and achieved an upgrade of its ISO9001 standard to the newest ISO 9001:2000 standard. Proton believes that this registration, a quality assurance model for companies that design, produce, install and service items as part of their business will provide Proton with an advantage over competitors that are not ISO 9001:2000 registered. In some cases, this registration is a condition of doing business with customers.

Intellectual Property

Proton seeks to maintain its technology leadership position by aggressively protecting intellectual property assets using patent, trade secret, trademark and copyright law. Proton's protection of these assets has continued to accelerate and Proton has to date been issued 20 U.S. patents and three European patents, covering aspects of its hydrogen generation equipment and electrolysis cell designs. Proton has 117 U.S. and international patents pending, covering not only its current electrolysis products, but also technologies it has developed related to fuel cells, backup and renewable power systems and hydrogen fueling systems.

In addition to Proton's patented assets, Proton's intellectual property position has also grown to include manufacturing processes and know-how, which are enhancing Proton's next generation products and cost reduction efforts. Proton also seeks to protect its proprietary intellectual property in part through confidentiality agreements with its strategic partners and employees. Proton cannot ensure that these agreements will not be breached, that it will have adequate remedies for any breach or that such persons or institutions will not assert rights to intellectual property arising out of these relationships.

Competition

Proton's hydrogen generators will compete with current suppliers of delivered hydrogen, and with other manufacturers of on-site hydrogen generators. Competitors in the delivered hydrogen market include Airgas, Air

Liquide, Air Products and Chemicals, Linde and Praxair. Proton's hydrogen generators will also compete with older generations of electrolysis-based hydrogen generation equipment sold by Stuart Energy Systems, Norsk Hydro, Teledyne Energy Systems and other companies. These competing systems are generally larger in size than Proton's generators. Some of these systems require manual operation and supervision, most contain hazardous liquid electrolyte and some require the assistance of mechanical compressors to produce hydrogen at pressure.

There are a number of companies located in the United States, Canada and abroad that are developing PEM fuel cell technology. These companies include Avista Labs, Ballard Power Systems, General Motors, Giner, Honda, Toyota, Sanyo, Idatech, Nuvera, Plug Power, Toyota and UT Fuel Cells. Although Proton believes these companies are currently primarily targeting vehicular and residential applications, they could decide to enter the hydrogen generation and backup power markets Proton intends to address. Proton may also encounter competition from companies that have developed or are developing fuel cells based on non-PEM technology, as well as other distributed hydrogen generation technologies.

Many of Proton's competitors have substantially greater financial, research and development and marketing capabilities than Proton does. In addition, as the backup power and hydrogen fuel markets develop, other large industrial companies may enter these fields and compete with Proton.

Employees

As of December 31, 2003, Proton had a total staff of 112 employees, of whom approximately 76 were engineers, scientists, and other degreed professionals. None of Proton's employees are represented by a labor union. Proton considers its relations with its employees to be excellent. All employees are shareholders, option holders, or both.

Northern's Business

Overview

Since 1974, Northern or its predecessors has been engaged in the business of designing, building and installing both stand-alone and grid-connected electric power systems for industrial, commercial and government customers. These onsite or integrated power systems are referred to as distributed generation, meaning power is generated at the location where it is used rather than from a large central generating facility. Northern's generating systems convert energy derived from wind, sunlight, oil and gas into electricity, using reliable power generation technologies integrated with controls and power electronics. Northern has installed over 800 systems in more than 45 countries. Northern is a full service systems integrator and provides engineering, procurement and construction, or EPC, services, including site analysis, project and financial assessment, feasibility studies, system design, installation, commissioning, monitoring and control. Northern uses on-site metering and data collection to engineer and design the proper balance of energy source, power generation, energy storage and controls for each system. In addition to Northern's core EPC services, Northern is engaged in the development of new proprietary products and system architectures for application in the distributed generation market in both stand-alone and grid-connected systems.

Northern believes that in recent years there has been a convergence of market, policy and technology trends that will hasten the adoption of distributed generation in both domestic and international markets. These trends include insufficient or inadequate power quality and reliability from the current electric grid, growing concern about the effects of energy production and use on human health and the environment, and high electricity prices in key regions. In addition, there are increasing government regulations and incentives focused on the deployment of distributed and renewable energy resources. For example, several states, including California and New York, have recently established renewable energy production requirements that utilities serving customers in these states must meet. These same states, along with New Jersey, Connecticut, Massachusetts and others,

have also enacted various incentive rebate programs to reduce the capital cost of distributed generation systems for commercial and industrial customers. There are also a variety of renewable energy tax credits and funding mechanisms at both the federal and state level. Concurrent with these market and policy trends, distributed and renewable energy generation technologies have expanded in scope of application, improved in efficiency and reliability, and declined in price to the point that the end user energy consumer has more viable alternatives to grid power today than it did a few years ago.

Northern intends to focus on three complementary growth strategies: accelerating growth in Northern's core EPC business; developing proprietary products for the distributed generation market that may be deployed in Northern's EPC business or sold/licensed as intellectual property, embedded or stand-alone products; and establishing Northern's proprietary MicroGrid as a leading networked distributed generation system architecture. The first strategy is designed to provide strong and stable growth in Northern's revenues and margins. The second and third strategies represent new revenue opportunities designed to capitalize on expected growth of the distributed generation market as a result of new technology and increased recognition of the benefits of networked distributed generation systems.

Principal Services and Products

EPC Services. Northern's primary focus is on providing distributed power systems for commercial, industrial and government clients that are built or delivered complete and ready to operate. In its EPC business, Northern acts primarily as a full service systems integrator using third party products and technologies. Distributed generation technologies installed by Northern range from reciprocating engines, turbines, and batteries to wind, solar, biogas and hydrogen power systems. Northern typically designs a power system to meet customer specifications, then procures key components from third parties, and builds, installs and commissions the system.

On integrated power system projects, Northern typically builds the entire system itself and ships it to a remote site for installation into a larger infrastructure application. For onsite power system projects, Northern typically employs civil, mechanical and electrical subcontractors to complete the installation at the commercial or industrial customer's facility in accordance with Northern's specifications. Northern may also enter into a separate agreement to provide monitoring, control, service and or repair of its systems for an additional fee. Northern believes that its technical knowledge and engineering expertise, fulfillment capability, and capability to deliver power systems that are complete and ready to operate distinguish it from its competitors.

Northern focuses on two markets within the distributed generation industry: integrated power systems and on-site power systems.

Integrated Power Systems

Northern delivers integrated power systems for specific purpose applications in locations where power is unavailable, unreliable or insufficient. These systems provide power for oil pipelines, offshore oil and gas platforms, telecommunications facilities, and remote military and scientific installations. Northern develops both autonomous stand-alone power systems as well as grid-connected backup power systems for clients in this market. In the past four years, Northern has provided critical power systems for two large new crude oil pipelines: the Caspian Pipeline in Kazakhstan and Russia, and the Esso Chad Cameroon Pipeline in Africa; and is currently constructing systems for the Baku-Tblisi-Ceyhan Pipeline in Azerbaijan and Georgia. Clients in this market include some of the world's largest oil companies and engineering construction firms.

Northern has also supplied high reliability power systems to the telecommunications industry for over two decades. Applications include remote microwave repeater sites, cellular base stations and repeater stations, emergency wireless communications networks and obstruction lighting systems. Clients include some of the largest U.S. and international telecommunications providers.

On-Site Power Systems

Northern also designs and delivers on-site power systems for commercial and institutional buildings and industrial manufacturing facilities dependent upon the utility grid. These systems address three critical objectives for commercial, industrial and government customers: reduced operating costs, increased power reliability and lower environmental impact. Northern's on-site power systems are designed to reduce energy costs through greater generation efficiencies and heat recovery, increase power reliability through critical load support, and reduce pollution through the use of high efficiency cogeneration technologies and renewable energy.

Northern has recently built, or is currently building, on-site generation systems for a variety of commercial and industrial customers, including: a California bottling plant experiencing power reliability problems; an office building owner in San Francisco seeking to lower its power costs; a Wisconsin industrial facility committed to reducing its greenhouse gas emissions; and a municipal wastewater treatment plant in Vermont that is capturing waste methane, a potent global warming gas, and burning it to create electricity. These systems are mostly natural gas and biogas cogeneration units, and their electrical generating capacity ranges from 120 kilowatts to 3.5 megawatts.

Most systems built by Northern for clients in this market employ reciprocating engine generators or turbine generators fueled by natural gas, landfill gas or other biogases. Most systems are also designed to recapture waste heat from the engines and process it through heat exchangers, steam generators or absorption chillers to meet the clients' space heating, process steam or cooling needs; this is known as cogeneration or trigeneration. In this market sector, Northern is increasingly targeting large companies with multiple facilities and project opportunities. Examples include large commercial real estate developers who own multiple large properties in major metropolitan areas, and large industrial concerns with multiple manufacturing, distribution and research facilities around the country or the world.

On-Site Renewably Powered Systems

Northern has provided solar and wind power systems for government and commercial clients for more than a quarter century. Northern is pursuing EPC opportunities in both grid-connected and isolated grid applications of wind and solar technologies. Northern is also involved with projects demonstrating the ability to produce hydrogen using renewable energy.

Northern has recently worked on a variety of renewable energy projects in various stages of development, including a feasibility study for a large wind farm in Vermont, a solar installation in Massachusetts, and a project using renewable energy to produce hydrogen in California. Northern also has a long-standing role in providing renewable and hybrid power systems for remote villages. In recent years, for example, Northern delivered wind and wind-diesel systems for villages in Alaska and Brazil and an island community off the coast of Maine. Northern is also currently conducting a feasibility study for a wind-diesel system for one of the Galapagos Islands.

Research and Development

In addition to its EPC services, Northern is engaged in the development of advanced energy technologies. Northern's Energy Technology Laboratory is developing distributed generation power controls, power conversion technology, and advanced power system architectures. This work is intended to produce "plug and play" networks of power generation, storage, and load management components that can easily be configured into high performance systems using Northern's MicroGrid power network architecture. In cooperation with a

Vermont utility, Northern is currently building a demonstration system using its proprietary MicroGrid power network architecture to link diverse power generating sources, multiple users, and a high-speed connection to the main utility grid. Northern intends to work closely with utility partners and other interested parties to safely and cost-effectively link these technologies with the main power grid. Northern's MicroGrid architecture is designed to provide end user customers with power quality, availability, and efficiency levels not currently available from conventional utility power sources. The Energy Technology Laboratory is also pursuing research and development focused on developing advanced wind turbines employing direct drive technology and advanced power electronics and generator technology.

The Energy Technology Laboratory currently has a highly qualified and experienced engineering staff who carry out both internally and externally funded research and development. The United States Department of Energy has been the principal source of external funding. Northern retains intellectual property rights to the inventions and technology developed under its government funded research and development programs.

Intellectual Property

Northern's growth strategy depends in part on the development of proprietary products and technologies. Northern relies on patent, trade secret, trademark and copyright law to protect its intellectual property. Northern has one currently active issued U.S. patent, covering wind turbine control technologies, as well as two non-provisional patent applications. Northern also seeks to protect its proprietary intellectual property, including intellectual property that may not be patented or patentable, in part by confidentiality agreements with its strategic partners and employees. Northern can provide no assurance that these agreements will not be breached, that it will have adequate remedies for any breach or that such persons or institutions will not assert rights to intellectual property arising out of these relationships. In the event that these protective measures are not adequate, Northern's business, results of operations and financial condition could be materially and adversely affected.

Competition

As a system integrator, Northern is positioned in the middle of the supply chain between the power equipment manufacturers and the commercial and industrial end users. Although Northern believes the system integrator role in the distributed generation market has been underserved, a number of companies have entered the market in recent years to fill this gap. Northern faces competition from a variety of firms, including equipment manufacturers, distributors, packagers, other system integrators, general contractors, engineering firms, project developers, and energy services companies, such as GE Power Systems, Cummins Power Generation, Caterpillar, Stewart & Stevenson Services, Black and Veatch, Invensys, DTE Energy Technologies, Encorp, PowerLight, Chevron Energy Solutions and RealEnergy. Northern competes with these types of firms on several bases, particularly price and performance.

With its engineering capabilities and project skills, Northern believes it has a competitive advantage over newer entrants to the distributed generation market. Also, unlike manufacturers who typically offer one power technology to meet a number of different needs, Northern offers a custom engineered solution utilizing appropriate technologies for each specific application backed up by a project management team and post commission service capabilities. Northern believes its project management skills are more typically found in suppliers serving the markets for larger power projects.

However, many of Northern's current and potential competitors have, or are affiliated with companies that have, longer operating histories and greater financial, technical, sales, marketing and other resources, as well as greater name recognition and a larger customer base, than Northern. As a result, they may be better able to develop and deploy new technologies and respond to new customer requirements, or devote greater resources to business and product development, promotion, sales, financing and support of their products and services, than Northern. There is no assurance that Northern will be able to compete successfully in the future.

Sales and Marketing

Northern's sales force is divided into two separate units: (1) the industrial infrastructure sales unit; and (2) the onsite generation sales unit. The industrial infrastructure sales unit sells integrated power systems for remote primary and backup power applications primarily to the oil and gas, telecommunications and government markets. Northern customers in this market may be either the multinational oil or telecommunications companies or the engineering construction firms they hire as general contractors for large construction projects such as pipelines. Most projects are awarded through a competitive bidding process. In this segment, Northern sells its products and services primarily through an internal direct sales force that develops relationships with buyers, project managers and other procurement agents, identifies project opportunities, and responds to requests for proposals. In this market, Northern competes primarily on technical and fulfillment capability and secondarily on price. Northern also augments its internal sales force through relationships with independent sales representatives, equipment vendors and technology partners.

Northern's onsite generation sales unit sells onsite power systems, for primary power applications in parallel to the utility grid, to customers in the manufacturing, commercial and institutional facilities, distributed generation, and digital economy markets. The onsite generation sales unit is an internal direct sales force with offices in Vermont and California. This sales force has developed both formal and informal relationships with independent sales representatives, equipment vendors and distributors, engineering firms, mechanical and electrical contractors, property management firms, energy consultants and others that provide access to additional project opportunities. Members of this sales unit also participate in trade groups, industry coalitions, and environmental advocacy groups, as well as regional and national trade shows and conferences on energy, distributed generation, renewable technologies, and climate change. All these activities generate numerous sales opportunities; however, in this emerging market the sales cycle is very long and the ratio of prospects converted into contracts is very low.

The corporate marketing group is responsible for Northern's strategic positioning in the marketplace, developing and executing market communications and supporting the product development process. Its marketing activities include market research, collateral development, production and distribution, web site development and maintenance, advertising, public and media relations, and event planning and scheduling.

Employees

As of December 31, 2003, Northern had a total staff of 115 persons, of which approximately 60% were engineers, scientists or other degreed professionals. None of Northern's employees are represented by a labor union. Northern considers its relations with its employees to be excellent. All Northern employees are shareholders or option holders of Distributed Energy, or both.

Customers

For the year ended December 31, 2003, Distributed Energy's contract revenue from government-sponsored agencies accounted for approximately 29% of total revenue. For the year ended December 31, 2003, sales to one international customer, British Petroleum Exploration totaled approximately 18% of total revenue. At December 31, 2003, accounts receivable from government-sponsored agencies accounted for approximately 18% of total accounts receivable. At December 31, 2003, accounts receivable from two customers, British Petroleum Exploration and National Renewable Lab, accounted for approximately 29% and 12%, respectively, of total accounts receivable.

ITEM 2. *Properties*

In 2001, Proton purchased approximately 44 acres of land located in Wallingford, Connecticut to build its new facility. In December 2001, Technology Drive LLC, a limited liability company wholly owned by Proton, entered into a $6,975,000 loan agreement with a major financial institution in connection with the construction of the facility. Under the terms of the loan, the business assets of Technology Drive LLC, including the land and building, are subject to lien.

In 2002, Proton completed the construction of the new facility and the relocation of its corporate offices. In the first half of 2003, Proton completed the consolidation of its operations by relocating the remainder of its research and development and manufacturing functions from its leased Rocky Hill, Connecticut facility to the new 100,000 square foot facility. Proton continues to lease one facility in Rocky Hill, Connecticut totaling approximately 20,000 square feet. This lease expires in June 2004.

Northern's principal executive offices are located in Waitsfield, Vermont. Northern owns a 13,000 square foot facility that currently houses its research, manufacturing, and administrative activities and part of its sales force. Additional sales offices are located in leased space in Burlington, Vermont and San Francisco, California. In the fourth quarter of 2003, Northern substantially completed its new 28,500 square foot headquarters building adjacent to its existing Waitsfield, Vermont facility.

In 2002, Northern began construction of a new facility. In March 2003, Northern entered into a financing agreement with the Vermont Economic Development Authority (VEDA) regarding the purchase, construction, sale, and lease of a new facility. In March 2003, a condominium association, Northern Power Systems Commercial Condominium Association, Inc. (NPS Condo Association), was formed for the purpose of managing the land, building, and improvements related to the new facility. Northern owns 50% of the NPS Condo Association and has the ability to exercise significant influence over the NPS Condo Association. Northern transferred certain property and development rights under NPS Condo Association to the Central Vermont Economic Development Corporation (CVEDC). In consideration, CVEDC secured a $2,790,000 loan from VEDA to complete the facility and lease back such facility to Northern. The terms of the lease include an initial term of ten years, lease payments equal to the debt payments plus an administrative fee, and a purchase option for Northern equal to the outstanding loan amount. Northern has guaranteed the CVEDC loan, is responsible for all cost overruns in relation to construction of the new facility, is required to maintain certain levels of insurance over the facility, is required to maintain $150,000 of restricted cash for performance under the agreements and indemnifies CVEDC from liability or lawsuit relating to the facility. The agreement also contains a clause requiring repayment of the loan in the event of a material adverse change in Northern's business.

ITEM 3. ***Legal Proceedings***

Between July 3, 2001 and August 29, 2001, four purported class action lawsuits were filed in the United States District Court for the Southern District of New York against Proton and several of its officers and directors as well as against the underwriters who handled the September 28, 2000 initial public offering ("IPO") of common stock. All of the complaints were filed allegedly on behalf of persons who purchased the Proton's common stock from September 28, 2000 through and including December 6, 2000. The complaints are similar, and allege that Proton's IPO registration statement and final prospectus contained material misrepresentations and/or omissions related, in part, to excessive and undisclosed commissions allegedly received by the underwriters from investors to whom the underwriters allegedly allocated shares of the IPO. On April 19, 2002, a single Consolidated Amended Complaint was filed, reiterating in one pleading the allegations contained in the previously filed separate actions, including the alleged class period of September 28, 2000 through and including December 6, 2000. On July 15, 2002 the Company joined in an omnibus motion to dismiss the lawsuits filed by all issuer defendants named in similar actions which challenges the legal sufficiency of the plaintiffs' claims, including those in the consolidated amended complaint. Plaintiffs opposed the motion and the Court heard oral argument on the motion in November 2002. On February 19, 2003, the Court issued an Opinion and Order, granting in part and denying in part the motion to dismiss as to the Company. In addition, in August 2002, the plaintiffs agreed to dismiss without prejudice all of the individual defendants from the consolidated complaint. An order to that effect was entered by the Court in October 2002.

A special Litigation Committee of the Board of Directors has authorized the Company to negotiate a settlement of the pending claims substantially consistent with a Memorandum of Understanding, which was negotiated among class plaintiffs, all issuer defendants and their insurers. Any such settlement would be subject to approval by the Court. The Company believes it has meritorious defenses to the claims made in the complaints and, if the settlement is not finalized and approved, Proton intends to contest the lawsuits vigorously. However,

there can be no assurances that we will be successful, and an adverse resolution of the lawsuits could have a material adverse effect on our financial position and results of operation in the period in which the lawsuits are resolved. Proton is not presently able to reasonably estimate potential losses, if any, related to the lawsuits. In addition, the costs to us of defending any litigation or other proceeding, even if resolved in our favor, could be substantial

ITEM 4. ***Submission of Matters to a Vote of Security Holders***

On December 10, 2003, Proton and Northern each held a special meeting of stockholders to consider and approve the merger of subsidiaries of Distributed Energy into Proton and Northern. The stockholders of each corporation approved the mergers as follows:

	For	Against or Withheld	Abstentions and Broker Non-Votes
Proton:	19,351,176	14,559,463	35,452
Northern:	4,045,993	2,400	

Executive Officers and Directors

Distributed Energy Systems Corp.'s executive officers and directors, and their ages as of December 31, 2003, are as follows:

Name	Age	Title
Walter W. Schroeder	55	President of Distributed Energy and director
Clint Coleman	55	President of Northern and director
Robert J. Friedland	38	Senior vice president
John A. Glidden	40	Vice president finance
Robert W. Shaw, Jr.	62	Chairman of the board of directors
Gerald B. Ostroski	62	Director
Philip R. Sharp	61	Director
James H. Ozanne	60	Director
Paul F. Koeppe	54	Director
Theodore Stern	74	Director

Walter W. Schroeder, one of Proton's founders, has served as Proton's chief executive officer, and as a director, since Proton's founding in August 1996. From 1991 to August 1996, Mr. Schroeder served as an officer of AES Corp., an independent power company. From 1986 to 1991, Mr. Schroeder was a vice president in the investment banking division of Goldman Sachs & Co. Mr. Schroeder holds BS and MS degrees from Massachusetts Institute of Technology.

Clint Coleman joined Northern in 1980 as Northern's Chief Engineer and was named President of Northern in 1994. Mr. Coleman became a director of Northern in 1997. Mr. Coleman holds an M.S. in Mechanical Engineering from the University of Nevada, Reno and a B.S. in Wood Science and Technology from Colorado State University.

Robert J. Friedland, one of Proton's founders, has served as senior vice president, Advanced Technology since November 2003. From February 2003 to November 2003 Mr. Friedland was our senior vice president of strategic sourcing. From September 2001 to February 2003 Mr. Friedland was our senior vice president of products and manufacturing. From our founding in August 1996 through September 2001, Mr. Friedland served as our vice president of operations. From 1995 to August 1996, Mr. Friedland served as a program operations manager for United Technologies Corporation, a diversified aerospace and building systems company. Mr. Friedland holds a BS in mechanical engineering from Syracuse University and an MBA from Rennselaer Polytechnic Institute.

John A. Glidden has served as Proton's vice president finance since November 1997. From July 1996 to November 1997, Mr. Glidden served as a financial manager for United Technologies. From 1987 to July 1996, Mr. Glidden served as a senior financial planning analyst for United Technologies. Mr. Glidden holds a BS in business administration from Central Connecticut State University and an MS in international management from Rensselaer Polytechnic Institute.

Robert W. Shaw, Jr. has served as Proton's chairman of the board of directors since Proton's founding in August 1996. Dr. Shaw has served as president of Arete Corporation, a private investment firm, since March 1997. From 1983 to 1997, Dr. Shaw served as president of Arete Ventures, Inc., a private investment firm he founded to invest in the fields of modular/dispersed power generation, renewable power generation and specialty materials. Prior to that time, Dr. Shaw was a senior vice president and director of Booz Allen & Hamilton, a consulting firm, where he founded the firm's energy division. Dr. Shaw holds BEP and MS degrees from Cornell University, an MPA from American University and a PhD in applied physics from Stanford University. In addition to serving as chairman of the board of directors of Northern, he serves as a director of Evergreen Solar, Inc., a public company which makes photovoltaic products, and of CellTech Power, Inc. and H2Gen Innovations, Inc., each a private power technology company.

Gerald B. Ostroski has served as a director since February 1999. Mr. Ostroski has served as vice president of Minnesota Power, Inc. since January 1982 until his retirement from that firm as Vice President, Emerging Technology Investments in July of 2002. During his tenure at Minnesota Power, Mr. Ostroski also served as president of Minnesota Power's Synertec subsidiary and served as a director or officer of several other Minnesota Power subsidiaries. He also served on the Board of Directors of the Minnesota High Technology Association, and serves on and chaired the University of Minnesota's Natural Resources Research Institute Industry Advisory Board. Mr. Ostroski is a registered professional engineer, licensed in Minnesota. Mr. Ostroski holds a BSEE from the University of Wisconsin.

Philip R. Sharp has served as a director since March 1999. Dr. Sharp has served as a lecturer at the John F. Kennedy School of Government of Harvard University since February 1995. From July 1995 to February 1998, Dr. Sharp also served as director of Harvard University's Institute of Politics, and is currently a member of the Institute's senior advisory board. From 1975 to 1995, Dr. Sharp served as a member of the United States House of Representatives, representing the second district of Indiana. He was a member of the House Energy and Commerce Committee and the Interior Committee. Dr. Sharp also chaired the Subcommittee on Fossil and Synthetic Fuels and the Energy and Power Subcommittee. Dr. Sharp holds a BSFS in foreign service and a PhD in government from Georgetown University. He serves as a director of Cinergy Corp. and New England Power Co.

James H. Ozanne has served as a director since September 2002. Mr. Ozanne is chairman of Greenrange Partners, a venture capital investment company. He was previously chairman of Nations Financial Holdings Corporation, president and chief executive officer of US West Capital Corporation and executive vice president of General Electric Capital Corporation. He became a director of FSA Holdings in January 1990 and was vice chairman from May 1998 to July 2000. Mr. Ozanne also serves as director of Fairbanks Capital and Acquisitor Holdings.

Paul F. Koeppe joined Northern as a director in 1998. Prior to his retirement in 2001, Mr. Koeppe served as Executive Vice President of American Superconductor, an electricity solutions company. Mr. Koeppe joined American Superconductor in 1997, in connection with the acquisition of Superconductivity, Inc., a manufacturer of superconducting magnetic energy storage systems which Mr. Koeppe founded and served as President. From 1993 to 1995, Mr. Koeppe was Acting CEO and Chairman of the Executive Committee of the board of directors of Best Power, Inc., a supplier of uninterruptible power supply packages. Mr. Koeppe holds an Associate of Science Degree in Electrical Power Technology and an Associate of Arts Degree in Materials Management, both earned at Lakeshore Technical College, and a Bachelor of Arts Degree in Business and Economics earned at Lakeland College.

Theodore Stern joined Northern as a director in 1998. Mr. Stern is the Chief Executive Officer and Chairman of the Board of Directors of Buyer's United, Inc., a telecommunications provider. Mr. Stern was Senior Executive Vice President and a member of the board of directors of Westinghouse Electric Corp., where he was responsible for the electrical utility and environmental system businesses. Mr. Stern holds a B.S. in Mechanical Engineering from Pratt Institute and an M.S. in Mathematics from New York University. Between 1998 and 2000, Mr. Stern was a management consultant operating as a sole proprietor of Strategy Advisors Group.

Part II

ITEM 5. *Market for Registrant's Common Stock and Related Stockholder Matters*

The range of high and low sales prices per share of our common stock (and for Proton common stock prior to December 11, 2003) as reported on The NASDAQ National Market under the symbols PRTN and DESC for 2003 and 2002 is shown below:

Year and Quarter	High	Low
2003		
First Quarter	$3.25	$2.46
Second Quarter	3.70	2.13
Third Quarter	3.05	1.76
Fourth Quarter	3.33	2.51
2002		
First Quarter	$9.40	$5.05
Second Quarter	7.11	3.08
Third Quarter	3.48	2.04
Fourth Quarter	3.34	1.92

The Company made a cash distribution of $1.00 per share payable on June 20, 2003 to shareholders of record as of June 6, 2003. The distribution was recorded as a reduction to additional paid-in capital, in that the distribution represented a return of capital. The Company does not intend to pay cash dividends in the foreseeable future.

As of March 3, 2004 there were approximately 13,300 stockholders of record.

Use of Proceeds

On October 4, 2000, Proton closed an initial public offering of its common stock. The effective date of the Securities Act registration statement for which the use of proceeds information is being disclosed was September 28, 2000, and the Commission file number assigned to the registration statement is 333-39748.

After deducting underwriting discounts and commissions and offering expenses, our net proceeds from the offering were approximately $125.8 million. The net proceeds have been allocated for general corporate purposes and capital expenditures, including purchase of equipment for and leasehold improvements to our planned manufacturing facility, and the possible acquisition of businesses, products or technologies that are complementary to our business. As of December 31, 2003, approximately $47.6 million of the net proceeds of the offering had been used to fund operations and purchase fixed assets and $20.3 million has been used in the acquisition of Northern Power Systems, Inc (the "Acquisition"). The remaining net proceeds are invested in U.S. Government and Agency securities. In October 2001, we loaned $275,000 of the proceeds to Mr. Schroeder, who is president and a director of the Company. In July 2002, the loan was paid in full. We made a cash distribution of $1.00 per share payable on June 20, 2003 to stockholders of record as of June 6, 2003. The aggregate amount

of this distribution was $33,927,297. No other portion of the proceeds of Proton's initial public offering were paid directly or indirectly to any director, officer or general partner of us or our associates, persons owning ten percent or more of any class of our equity securities, or an affiliate of us.

ITEM 6. *Selected Financial Data*

The data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and notes thereto included elsewhere in this report. The selected financial data for 2003 include the full year of Proton's operations and the period from December 11, 2003 through December 31, 2003 for Northern and Distributed Energy.

	Year Ended December 31,				
	2003	2002	2001	2000	1999
	(in thousands, except per share data)				
Statement of Operations Data:					
Revenue:					
Contract revenue	$ 2,965	$ 3,445	$ 1,215	$ 644	$ 934
Product revenue	1,229	1,269	1,753	56	—
Total revenue	4,194	4,714	2,968	700	934
Costs and expenses:					
Costs of contract revenue	3,301	2,355	1,001	396	355
Costs of production	2,178	4,995	2,534	248	154
Research and development	7,716	8,793	6,500	3,227	2,182
General and administrative	10,069	7,877	6,950	4,518	1,705
	23,264	24,020	16,985	8,389	4,396
Loss from operations	(19,070)	(19,306)	(14,017)	(7,689)	(3,462)
Interest income	2,535	5,894	8,954	4,199	172
Interest expense	(243)	(92)	(4)	—	—
Gain on sale of marketable securities	10	24	113	—	—
Net loss	(16,768)	(13,480)	(4,954)	(3,490)	(3,290)
Deemed preferred dividends and accretion	—	—	—	(52,691)	(899)
Net loss attributable to common stockholders	(16,768)	(13,480)	(4,954)	(56,181)	(4,189)
Basic and diluted net loss per share attributable to common stockholders	$ (0.50)	$ (0.40)	$ (0.15)	$ (5.92)	$ (2.20)
Shares used in computing basic and diluted net loss per share attributable to common stockholders	33,830	33,347	33,161	9,484	1,900
Cash, cash equivalents and marketable securities	$ 73,848	$150,359	$167,220	$174,749	$ 3,131
Working capital	76,804	156,099	169,253	176,856	3,225
Total assets	143,467	176,305	181,868	180,752	5,000
Current liabilities	13,636	7,577	4,675	2,445	921
Long-term liabilities	8,718	6,441	1,166	—	—
Mandatorily redeemable convertible preferred stock	—	—	—	—	13,136
Total stockholders' equity (deficit)	121,113	162,287	176,027	178,307	(9,057)

ITEM 7. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

The following discussion and analysis should be read in conjunction with Distributed Energy's financial statements and notes thereto appearing elsewhere in this joint proxy statement/prospectus. This discussion and analysis contains forward-looking statements that involve substantial risks and uncertainties. You can identify these statements by forward-looking words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "should," "will," and "would" or similar words. You should read statements that contain these words carefully because they discuss Distributed Energy's future expectations and contain projections of its future results of operation or of its financial position or state other forward-looking information. However, there may be events in the future that Distributed Energy is unable to predict accurately or control. The factors in the section entitled "Risk Factors" and the section below entitled "Critical Accounting Judgments and Estimates" provide examples of risks, uncertainties and events that may cause Distributed Energy's actual results to differ materially from the expectations described in Distributed Energy's forward-looking statements.

Overview

Formed in May 2003, Distributed Energy Systems Corp. is creating and delivering innovative products and solutions to the energy marketplace, giving users greater control over their energy cost, quality, and reliability. Distributed Energy was formed as the parent company of two established businesses: Proton Energy Systems, Inc. ("Proton") and Northern Power Systems, Inc. ("Northern"). Distributed Energy believes the acquisition of Northern's project integration experience will strengthen Proton's near-term capabilities, accelerate entry into early energy-related markets and contribute to advancing Proton's vision of producing hydrogen from renewable sources.

Proton was founded in 1996 to design, develop and manufacture PEM electrochemical products for commercial applications. Proton's proprietary PEM technology is incorporated in two families of products: hydrogen generators, which Proton is currently manufacturing and delivery commercial models to customers, and regenerative fuel cell systems, which Proton is currently developing.

Northern was incorporated in Delaware in December 1997 to design, manufacture and install reliable, cost-efficient distributed generation power systems using fossil fuel, solar energy and wind energy. Northern was originally founded in 1974 under the name of "North Wind Power Company." Northern also develops, manufactures and installs utility grade wind turbines. Northern sells its products to domestic and international customers.

Distributed Energy expects to incur additional operating losses in 2004 and cannot predict when it will become profitable, if ever.

The following significant events occurred in 2003:

- We successfully completed the acquisition of Northern on December 10, 2003.
- We strengthened Proton's intellectual property position by bringing our total U.S. and foreign patent filings to 117. Proton holds 20 issued U.S. patents and three issued European patents.
- We successfully completed the consolidation of Proton's operations by relocating the remainder of our research and development and manufacturing functions to our new facility in Wallingford, Connecticut.
- We made a cash distribution of $1.00 per share payable on June 20, 2003 to shareholders of record as of June 6, 2003. In the future no additional cash distributions are planned.
- We reached agreement to end our Development, Marketing and Distribution Agreement for small laboratory hydrogen generators with Matheson Tri-Gas.
- Proton was featured at a White House-sponsored event to promote President Bush's $1.2 billion Freedom Car and Fuel initiative.

- We received a contract to develop a 1 kW regenerative solar/Proton Exchange Membrane fuel cell demonstration system from Jacobs Sverdrup Technology, Inc, a subcontractor to the U.S. Navy, for testing at the Naval Air Weapons Station at China Lake, California.
- We received authorization to begin Phase II of our contract with the Naval Research Laboratory, as funded by the Defense Advanced Research Projects Agency (DARPA), for advanced fuel cell technology development.
- We substantially completed our field retrofit of HOGEN 40 series cell stacks that we determined were in need of replacement and resumed production and shipment of our HOGEN 40 hydrogen generators.
- We received a contract award from the University of Nevada Las Vegas Research Foundation for the delivery of a solar powered hydrogen system.
- We achieved new benchmarks in quality and reliability for our cell stack components, accumulating two million hours of operation in commercial service, with 800,000 hours between unscheduled shutdowns in 2003. Membrane Electrode Assemblies (MEA's) used in cell stacks achieved very high levels of process quality and consistency with 98 percent being defect free.
- We successfully completed the first external audit by TUV/Rhineland of our Quality Management System under the rigorous ISO 9001:2000 standard.
- We launched our HOGEN H Series hydrogen generators which produce ultra-pure hydrogen 24/7 at an output capacity of 80-240 standard cubic feet per hour at a fraction of the cost of cylinder or tube trailer gas and designed to meet the demands of high volume customers in the power generation, semiconductor, electronics, and heat-treating fields.

Subsequent Events:

- In February 2004, Proton announced the departure of Dr. Larry Sweet, the President of Proton, to pursue other professional interests.

Critical Accounting Judgments and Estimates

Distributed Energy's discussion and analysis of its financial condition and results of operations is based upon its consolidated financial statements, which have been prepared by Distributed Energy in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires Distributed Energy to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and disclosure of contingent assets and liabilities. Distributed Energy's estimates include those related to revenue recognition, investments, income taxes, depreciable lives of equipment, warranty obligations and contingency accruals. Distributed Energy bases its estimates on historical experience and on various other assumptions that it believes to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. For a complete description of Distributed Energy's accounting policies, see Note 2 to Distributed Energy's consolidated financial statements included in this Form 10-K. The audit committee of Distributed Energy's board of directors has discussed Distributed Energy's critical accounting policies with management and Distributed Energy's independent accountants.

Distributed Energy's critical accounting policies include the following:

Revenue Recognition—Product Revenue

The Proton subsidiary began delivering late-stage development models of its hydrogen generators to customers in 1999; revenue on such transactions had generally been deferred until the expiration of the product warranty period due to the newness of the product and the absence of a large volume of relatively homogeneous

transactions to make a reasonable estimate of future warranty expenses. In the fourth quarter of 2001, Proton determined that it had adequate product warranty information and experience to begin recognizing product revenue related to sales of HOGEN 40 units upon shipment. As a result, Proton recognized previously deferred HOGEN 40 series revenue of $754,000 in the fourth quarter 2001.

In the fourth quarter of 2002, Proton discovered performance issues relating to the operation of cell stacks and associated sensors in its HOGEN 40 series units. Proton's investigation of these issues revealed the presence of previously unknown pinholes in cell membranes in the field that resulted in hydrogen leakage and cell failure. As a result, Proton determined that recognizing revenue on shipment of its HOGEN 40 series units was no longer appropriate because of significant uncertainty surrounding the reliability of the existing design of the PEM electrolyzer ("cell stack") within its HOGEN 40 series generators. Proton has made modifications to the existing cell stack design to improve its performance and anticipates deferring product revenue until it has compiled sufficient warranty history on units containing modified cell stacks. For this reason, product revenue from HOGEN 40 series shipments is being deferred until the expiration of the product warranty period (typically, one year). As of December 31, 2003, Proton has deferred revenue of approximately $2.9 million related to hydrogen generators it has delivered. In the future, Proton expects to derive the majority of its revenue from the sale of the hydrogen generators and regenerative fuel cell systems products that it may develop.

In the fourth quarter of 2003, Proton determined that it had adequate product warranty information and experience to begin recognizing product revenue related to sales of laboratory units upon shipment. As a result, Proton recognized previously deferred revenue associated with its laboratory generators of $378,000 in the fourth quarter of 2003.

Proton will continue to defer revenue on shipments of its HOGEN 380 and its H Series hydrogen products until such units are past the product warranty period or until Proton has adequate warranty history.

If Proton determines that it has sufficient data available to reasonably estimate the warranty cost associated with a product, Proton will begin recognizing product revenue and the related costs of production with respect to that product upon delivery. This could materially increase the amount of product revenue and costs of production in Proton's reported results.

Revenue Recognition—Contract Revenue

Contract costs may be incurred over a period of several months to several years, and the estimation of these costs requires management's judgment. The long-term nature and complexity of these contracts can affect the Company's ability to estimate costs precisely. As a result, the Company reviews and updates its costs estimates on a quarterly basis or when circumstances change and warrant a modification to a previous estimate. Losses expected to be incurred on contracts in progress are charged to operations in the period such losses are determined.

Warranty Costs

Should the Company experience actual repair costs that are higher than the estimated repair costs used to calculate the provision, the Company's operating results for the period or periods in which such additional costs materialize will be adversely impacted.

Inventory

Inventory is recorded at the lower of cost or market value. Cost is determined by the first-in, first-out method. This policy requires Distributed Energy to write down its inventory for the difference between the cost of inventory and the estimated market value to reflect assumptions about future demand and market conditions. If future demand and market conditions become less favorable than anticipated or if our ability to realize value on our inventory is less favorable than assumed, additional inventory write-downs may be required.

Goodwill and Intangible Assets

The Company has adopted the provisions of Statement of Financial Accounting Standards ("SFAS") No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets," applicable to business combinations completed after June 30, 2001. These standards require the use of the purchase method of accounting for business combinations, set forth the accounting for the initial recognition of acquired intangible assets and goodwill, and describe the accounting for intangible assets and goodwill subsequent to initial recognition. Under the provisions of these standards, goodwill and intangible assets deemed to have indefinite lives are no longer subject to amortization. All other intangible assets are amortized over their estimated useful lives. Goodwill and intangible assets are subject to annual impairment testing and will also be tested for impairment between annual tests if changes in circumstances indicate that the carrying amount may be impaired. This testing compares carrying values to fair values and if the carrying value of these assets is less than the fair value an impairment loss is recognized for the amount of the difference.

Stock-Based Compensation

Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation," as amended by SFAS No. 148, "Accounting for Stock-Based Compensation—Transition and Disclosure," prescribes accounting and reporting standards for all stock-based compensation plans, including employee stock option plans. As allowed by SFAS No. 123, Distributed Energy has elected to continue to account for stock-based compensation issued to employees using the intrinsic value method in accordance with Accounting Principles Board (APB) Opinion No. 25, "Accounting for Stock Issued to Employees," and related Interpretations. Under APB 25, compensation expense is computed to the extent that the fair market value of the underlying stock on the date of grant exceeds the exercise price of the employee stock option or stock award. Compensation so computed is then recognized over the vesting period.

The Company accounts for stock based compensation issued to non-employees in accordance with SFAS 123 and the consensus in Emerging Issues Task Force ("EITF") 96-18. These pronouncements require the fair value of equity instruments given as consideration for services rendered be recognized as a non-cash charge to income over the shorter of the vesting or service period. The equity instruments must be revalued on each subsequent reporting date until performance is complete with a cumulative catch-up adjustment recognized for any changes in their fair value. In the event that we are required to record compensation expense that is currently only being disclosed under SFAS 123, an adjustment to decrease net income in such period would result.

The following table highlights the impact that each of the various assumptions has on determining the fair value of an option or award when using an option-pricing model:

Impact of Inputs to Value of Equity Instrument

Volatility of Stock	Higher the volatility	Higher the value
Expected Term	Longer the term	Higher the value
Risk Free Rate	Higher the rate	Higher the value
Dividend Yield	Lower the yield	Higher the value
Exercise Price	Lower the exercise price (A)	Higher the value
Stock Price (fair value)	Higher the stock price	Higher the value

(A) presumes exercise is less than fair value

Results of Operations

The results of operations for 2003 include the full year of Proton's operations and the period from December 11, 2003 through December 31, 2003 for Northern and Distributed Energy.

Comparison of the Years 2003 and 2002

Contract revenue. Contract revenue decreased from $3.4 million for 2002 to $3.0 million for 2003. The amount in 2003 includes $0.9 million related to Northern's distributed generation power systems. The decrease was due to the cessation of research and development activity under the Naval Research Laboratory ("NRL") contract, which was substantially completed in December 2002. In the future, Distributed Energy expects to generate contract revenue from projects in Northern's three commercial business units (remote infrastructure, on-site generation, and renewable energy) and through Proton's government sponsored research and development contracts. With the acquisition of Northern the Company expects contract revenue to increase significantly in the future.

Product revenue. Product revenue decreased from $1.3 million in 2002 to $1.2 million for the comparable period in 2003. In the fourth quarter of 2003, laboratory hydrogen generator revenues began to be recognized upon shipment. The revenue in 2003 accordingly, represents laboratory hydrogen generator revenue recognized upon expiration of the warranty period of $564,000, previously deferred laboratory hydrogen generator revenue recognized within the warranty period of $378,000, fourth quarter laboratory hydrogen generator revenue of $70,000 and spare parts sales and other revenue of $216,000. Included in 2002 product revenue is HOGEN 40 product revenue of $999,000, laboratory hydrogen generator revenue of $237,000, and spare part sales and other revenue of $62,000.

Hydrogen generator units shipped. Total units shipped (excluding shipments under the STM contract) decreased from 152 in 2002 to 128 in 2003. Shipments of the HOGEN 40 series units increased from 34 in 2002 to 42 in 2003. Total revenue deferred in 2003 related to these units shipped was approximately $1.5 million. Shipments of our laboratory hydrogen generator series units decreased from 118 units in 2002 to 86 units in 2003. During 2003 the Company was in the process of replacing HOGEN 40 series cell stacks in accordance with its cell stack replacement program described below and in Note 7 of the financial statements. For this reason, production and selling efforts with respect to the HOGEN 40 series units were curtailed. The decrease in laboratory hydrogen generator units is attributable to the Company's terminated agreement with Matheson Tri-Gas, Inc. in January 2003, under which the Company agreed not to sell or market the units before June 30, 2003.

In the fourth quarter of 2002, we discovered performance issues relating to the operation of cell stacks and associated sensors in our HOGEN 40 series units. Our investigation revealed the presence of previously unknown pinholes in cell membranes in the field that resulted in hydrogen leakage and cell failure. As a result, we determined that recognizing revenue on shipment of our HOGEN 40 series units was no longer appropriate because of significant uncertainty surrounding the reliability of the existing design of the PEM electrolyzer ("cell stack") within our HOGEN 40 series generators. We have made modifications to the existing cell stack design to improve its performance and anticipate deferring product revenue until we have compiled sufficient warranty history on units containing modified cell stacks. For this reason, product revenue from HOGEN 40 series shipments made subsequent to September 30, 2002 is deferred until the expiration of the product warranty period.

Costs of contract revenue. Costs of contract revenue increased from $2.4 million for 2002 to $3.3 million for 2003. The amount for 2003 includes $1.0 million related to Northern's distributed generation power systems contracts for the period December 11, 2003 to December 31, 2003. Costs of contract revenue as a percentage of contract revenue increased from 67% in 2002 to 111% in 2003. The increase in costs of contract revenue, and increase in costs of contract revenue as a percentage of contract revenue, in 2003 was due primarily to the mix of

contracts during those time periods, and specifically to the cessation of Proton's research and development activity under the NRL contract which was substantially completed in December 2002. Proton's contracts are generally cost share arrangements, under which Proton is reimbursed only for an agreed portion of its costs incurred to perform under the contract. The NRL contract is a cost plus fixed fee contract, under which Proton is reimbursed for allowable incurred costs plus a fixed fee. In general, Proton is reimbursed for a greater percentage of its costs incurred under a cost plus fixed fee contract than under a cost share arrangement. With the acquisition of Northern the Company expects its costs of contract revenue to increase significantly in the future.

Costs of production. Costs of production decreased from $5.0 million for 2002 to $2.2 million for 2003. Costs of production as a percentage of product revenue decreased from 393% in 2002 to 177% in 2003. The amounts in 2002 and 2003 reflect costs associated with manufacturing and delivering Proton's hydrogen generators as well as warranty costs on units in the field. The decrease in costs of production in 2003, both in absolute terms and as a percentage of product revenue, was primarily due to $2.5 million in costs incurred in 2002 to address performance problems relating to the operation of cell stacks and associated sensors in the HOGEN 40 series units, and much of our production efforts during the first two quarters of 2003 were remedying the problems in our HOGEN 40 products referred to previously. In 2003, costs of production includes approximately $378,000 of previously deferred cost recognized concurrent with the recognition of revenue associated with our laboratory hydrogen generators. We expect costs of production to decrease as a percentage of revenue in the future as we continue to refine our processes and reduce our material costs, however, costs of production could increase if warranty experience deteriorates.

In January 2003, the exclusive distribution agreement with Matheson Tri-Gas, Inc., was jointly terminated by agreement with Matheson Tri-Gas. Under the terms of the settlement agreement Proton agreed to continue to support units under warranty, provide spare parts for five years, sell an additional 55 laboratory hydrogen generators to Matheson Tri-Gas, and not sell or market laboratory hydrogen generators before June 30, 2003. To date, under its agreement with Matheson Tri-Gas, Inc., Proton has recognized costs in excess of its contracted sales price in the amount of $752,000.

Research and development expenses. Research and development expenses decreased from $8.8 million for 2002 to $7.7 million for 2003. The decrease was due to a decrease in Proton's research and development activities related to its PEM technology in regenerative fuel cell systems and hydrogen generators. These research and development activities primarily related to salaries and benefits for research and development staff and materials to support research and development projects. Specifically, the Company increased development efforts in the HOGEN H series area by $3.2 million, offset by decreases in the following areas: backup power ($1.1 million), HOGEN 380 series ($1.0 million), refueler ($0.8 million), laboratory generators ($0.7 million), and renewables/combustion ($0.5 million). In addition, in 2003 the Company recorded an offset to expenses of $675,000 related to Proton's agreement with the Connecticut Clean Energy Fund. In 2004, we expect research and development expense to significantly decrease.

General and administrative expenses. General and administrative expenses increased from $7.9 million for 2002 to $10.1 million for 2003. The $2.2 million increase in 2003 is attributable to the following: $0.4 million of expenses related to Northern from December 11, 2003 to December 31, 2003, $0.1 million for a stock compensation charge related to Distributed Energy options issued to Northern employees on the merger date, $0.4 million increase in salaries and benefits, $0.4 million increase in professional fees primarily related to the Northern transaction, $0.3 million increase in facility-related expenses, and a $0.2 million increase in selling expenses.

Interest income. Interest income decreased from $5.9 million for 2002 to $2.5 million for 2003. The decrease resulted from lower cash and marketable securities balances as well as lower average interest rates. The average cash and marketable securities balances for 2003 and 2002 were approximately $114.9 million and $158.5 million, respectively. The decreased cash and marketable securities balances were largely due to the $33.9 cash distribution in June 2003. The average interest rates for 2003 and 2002 were approximately 2.2% and 3.7%, respectively.

Interest expense. Distributed Energy recorded interest expense of $243,000 for 2003, compared to $92,000 for 2002. The increase in interest expense in 2003 relates to a full year of debt service associated with Distributed Energy's Wallingford facility loan. Construction was completed in 2002.

Comparison of Years 2002 and 2001

Contract revenue. Contract revenue increased from $1.2 million in 2001 to $3.4 million in 2002. This increase was due primarily to research and development activity under the NRL contract entered into in the fourth quarter of 2001. Revenue for 2002 under the NRL contract was $3.1 million as compared to $0.4 million for 2001. In the future, Proton expects to continue to generate revenue from government sponsored research and development contracts to supplement our research and development efforts.

Product revenue. Product revenue decreased from $1.8 million in 2001 to $1.3 million in 2002. In the fourth quarter of 2001, HOGEN 40 product revenues began to be recognized upon shipment. Accordingly, the revenue in 2001 represents previously deferred HOGEN 40 revenue within the warranty period, fourth quarter HOGEN 40 revenue, product rental revenue, and spare parts revenue. Included in 2002 product revenue is HOGEN 40 product revenue of $999,000, laboratory hydrogen generator revenue of $237,000, and spare part sales and other revenue of $62,000.

In the fourth quarter of 2002, Proton discovered performance issues relating to the operation of cell stacks and associated sensors in its HOGEN 40 series units. Proton's investigation of these revealed the presence of previously unknown pinholes in cell membranes in the field that resulted in hydrogen leakage and cell failure. As a result, Proton determined that recognizing revenue on shipment of its HOGEN 40 series units was no longer appropriate because of significant uncertainty surrounding the reliability of the existing design of the PEM electrolyzer ("cell stack") within Proton's HOGEN 40 series generators. Proton is making modifications to the existing cell stack design to improve its performance and anticipate deferring product revenue until it has compiled sufficient warranty history on units containing modified cell stacks. For this reason, product revenue from HOGEN 40 series shipments made in the fourth quarter is deferred until the expiration of the product warranty period.

Costs of contract revenue. Costs of contract revenue increased from $1.0 million in 2001 to $2.4 million in 2002. The increase in 2002 reflects increased costs incurred under the NRL contract. Additionally, cost of contract revenue includes $196,000 of charges related to cost overruns on the STM contract and $127,000 for warranty claims on the units delivered under the STM contract. Costs of contract revenue as a percentage of contract revenue decreased from 82% in 2001 to 68% in 2002. Costs of contract revenue decreased in 2002 as a percentage of contract revenue due to increased activity under the NRL contract, a cost plus fixed fee contract. Proton's contracts are generally cost share arrangements, under which Proton is reimbursed only for an agreed portion of its costs incurred to perform under the contract. The NRL contract is a cost plus fixed fee contract, under which Proton is reimbursed for allowable incurred costs plus a fixed fee. In general, Proton is reimbursed for a greater percentage of its costs incurred under a cost plus fixed fee contract than under a cost share arrangement.

Costs of production. Costs of production increased from $2.5 million in 2001 to $5.0 million in 2002. Costs of production as a percentage of product revenue increased from 145% in 2001 to 393% in 2002. The amounts in 2001 and 2002 reflect costs associated with manufacturing and delivering hydrogen generators as well as warranty costs on units in the field. The increase in costs of production in 2002, both in absolute terms and as a percentage of product revenue, was primarily due to $2.5 million in costs incurred to address performance problems relating to the operation of cell stacks and associated sensors in the HOGEN 40 series units. In 2001, costs of production also include approximately $1.7 million of previously deferred cost recognized concurrent with the recognition of revenue. Costs of production could increase if warranty experience deteriorates.

Research and development expenses. Research and development expenses increased from $6.5 million in 2001 to $8.8 million in 2002. The increase was due to an increase in Proton's research and development activities

related to our PEM technology in our regenerative fuel cell systems and our hydrogen generators. These research and development activities primarily related to increased material purchases and salaries and benefits for research and development staff. Proton expects its research and development expenses to remain level or decrease for the next twelve months.

General and administrative expenses. General and administrative expenses increased from $7.0 million in 2001 to $7.9 million in 2002. This increase reflects an increase in salaries and benefits of $1.1 million, as a result of an increase in the number of employees, an increase in facility related costs of $0.1 million, offset by decreases of $0.3 million in accounting, legal, and investor relations expenses, a decrease in Connecticut Clean Energy Fund expenses of $0.2 million, and a decrease in non-cash compensation of $0.1 million.

Interest income. Interest income decreased from $9.0 million in 2001 to $5.9 million in 2002. The decrease resulted from decreased cash and marketable securities balances as well as lower average interest rates. The average cash and marketable securities balances for 2002 and 2001 were approximately $158.5 million and $169.4 million, respectively. The average interest rates for 2002 and 2001 were approximately 3.7% and 5.2%, respectively.

Factors Affecting Results of Operations

The Company's contract and product revenues are subject to fluctuations, which may be material. The Company's revenues and operating results may fluctuate from quarter to quarter because: (i) the Company's sales cycle is relatively long, (ii) the size of orders may vary significantly, (iii) the availability of financing for customers in some countries is variable, (iv) customers may postpone or cancel orders, and (iv) economic, political and market conditions in some markets change with minimal notice and affect the timing and size of orders. Because the Company's operating expenses are based on anticipated revenue levels and a high percentage of the Company's operating costs are relatively fixed, variations in the timing of revenue recognition may result in significant fluctuations in operating results from period to period.

Liquidity and Capital Resources

Since its inception in August 1996 through December 2003, Proton financed its operations through convertible preferred stock issuances and an initial public offering that, in total, raised approximately $187.4 million. As of December 31, 2003, following the acquisition of Northern, Distributed Energy had $73.8 million in cash, cash equivalents and marketable securities.

In December 2001, Technology Drive LLC, a limited liability company wholly owned by Proton, entered into a $6,975,000 loan agreement with a major financial institution, in connection with the construction of Proton's new facility in Wallingford, Connecticut. As of December 31, 2003, $6,440,632 was outstanding under this agreement. Under the terms of the loan, the business assets of Technology Drive LLC, including the land and building, are subject to lien. The loan agreement was structured as a one-year construction loan with monthly payments of interest only until December 2002 at which time the loan converted to a seven-year term note. The term note amortizes based upon a fifteen-year schedule with a final lump sum payment due at the maturity date of December 31, 2009. The note is guaranteed by Proton and bears interest at the one month LIBOR plus 2.375% (3.495% at December 31, 2003). In connection with the construction of Proton's new Wallingford facility, Proton entered into a sales and use tax exemption program with the Connecticut Development Authority. As part of that program, Proton has approximately $419,000 of restricted cash in escrow. Maturities under the debt at December 31, 2003 are as follows: 2004—$350,400; 2005—$366,600; 2006—$382,800; 2007—$400,200; 2008—$418,200; 2009 and thereafter—$4,522,432.

As part of the Acquisition, approximately $2.9 million of the purchase price was set aside by Distributed Energy in an escrow account, two-thirds of which is payable one year from the acquisition date (December 10, 2004) and the remainder is payable two years from the acquisition date (December 10, 2005). As such,

approximately $1.9 million is included within restricted cash as part of current assets and approximately $952,000 is included within restricted cash as part of long-term assets.

At December 31, 2003 Proton has guaranteed $3 million of performance bonds issued by a financial institution on behalf of Northern. Northern, in connection with its new debt facility and in support of certain of its commercial contracts, also maintains approximately $484,000 of restricted cash. These amounts are included within restricted cash as part of current assets.

At December 31, 2003 Proton is committed under operating leases for its Rocky Hill CT facilities extending through June 2004. Minimum lease payments under the noncancelable leases at December 31, 2003 are as follows: 2004—$116,611.

In March 2003, a condominium association, Northern Power Systems Commercial Condominium Association, Inc. (NPS Condo Association), was formed for the purpose of managing the land, building, and improvements related to Northern's new facility. Northern owns 50% of the NPS Condo Association and has the ability to exercise significant influence over the NPS Condo Association. The Company transferred certain property and development rights under NPS Condo Assoc to the Central Vermont Economic Development Corporation (CVEDC). In consideration, CVEDC secured a $2,790,000 loan from the Vermont Economic Development Authority (VEDA) to complete the facility and lease back the facility to Northern. The terms of the lease include an initial term of ten years, lease payments equal to the debt payments plus an administrative fee, and a purchase option for Northern equal to the outstanding loan amount. Northern has guaranteed the CVEDC loan, is responsible for all cost overruns in relation to construction of the new facility, is required to maintain certain levels of insurance over the facility, is required to maintain $150,000 of restricted cash for performance under the agreements and indemnifies CVEDC from liability or lawsuit relating to the facility. The agreement also contains a material adverse change clause. Maturities under the capital lease obligation at December 31, 2003 are as follows: 2004—$89,794; 2005—$101,052; 2006—$104,386; 2007—$107,829; 2008—$111,386; 2009 and thereafter—$2,202,872.

Cash used in operating activities was $13.9 million for the year ended December 31, 2003 and was primarily attributable to the Company's net loss and increases in accounts payable and accrued expenses, offset by decreases in inventories and deferred costs and increases in deferred revenues and contract advances. Cash used in operating activities was $9.9 million for the year ended December 31, 2002 and was primarily attributable to the Company's net loss and increases in inventory, offset by increases in deferred revenue and accrued expenses.

Cash provided by investing activities was $35.8 million for the year ended December 31, 2003 and was primarily attributable to proceeds from the maturity of marketable securities offset by purchases of marketable securities, cash paid for the acquisition of Northern and increases in restricted cash. Cash provided by investing activities was $18.8 million for the year ended December 31, 2002 and was primarily attributable to proceeds from the maturity of marketable securities offset by purchases of marketable securities and fixed assets.

Cash used in financing activities was $34.1 million for the year ended December 31, 2003 and was primarily attributable to Proton's $1 per share cash distribution to stockholders. Cash provided by financing activities was $5.7 million for the year ended December 31, 2002 and was primarily attributable to borrowings under Proton's debt agreement.

Distributed Energy anticipates that its cash and marketable securities on hand as of December 31, 2003 will be adequate to fund its operations, working capital and capital expenditure requirements for at least the next 12 months. Over the next 12 months, Distributed Energy expects to continue to fund the production of its hydrogen generators and fund on-going project costs as well as continuing its research and development activities. Distributed Energy cannot ensure that it will not require additional financing to fund its operations or that, if required, any further financing will be available to Distributed Energy on acceptable terms, or at all. If sufficient funds are not available, Distributed Energy may be required to delay, reduce or eliminate some of its research

and development, manufacturing, or contract programs. The terms of any additional financing may require Distributed Energy to relinquish rights to its technologies or potential products or other assets.

Contractual Obligations

The following is a summary of Distributed Energy's contractual obligations as of December 31, 2003:

Contractual Obligations	Total	Less than 1 Year	2-3 Years	4-5 Years	After 5 Years
Long-term debt	6,440,632	350,400	749,400	818,400	4,522,432
Capital lease	2,717,319	89,794	205,438	219,215	2,202,872
Operating leases	370,527	220,263	148,146	2,118	—
Total contractual obligations	9,528,478	660,457	1,102,984	1,039,733	6,725,304

Certain Factors That May Affect Future Results

The following important factors, among others, could cause actual results to differ materially from those indicated by forward-looking statements made in this Annual Report on Form 10-K and presented elsewhere by management from time to time.

Distributed Energy's future success is uncertain because of its limited operating history and project based business.

Distributed Energy faces many risks and uncertainties. If it is unsuccessful in addressing these risks and uncertainties, it may be unable to generate revenue and grow its business. Proton was formed in 1996 to research and develop PEM electrochemical products. Proton began shipping late-stage development models of its hydrogen generators in 1999 and has not yet manufactured commercial regenerative fuel cell systems. Accordingly, there is only a limited basis upon which you can evaluate Proton's business and prospects, and Proton's future success is uncertain. You should consider the challenges, expenses, delays and other difficulties typically involved in the establishment of a new business, including the continued development of Proton's products, development of fully functioning manufacturing operations, refinement of processes and components for Proton's commercial products, recruitment of qualified personnel, ability to manufacture a product which meets cost, reliability and efficiency needs, and achievement of market acceptance for Proton's products.

As an engineering, procurement and construction contractor, Northern designs and builds a relatively small number of projects for a small number of customers each year. For many of these customers, Northern will deliver a single system with little or no opportunity for repeat business. A small number of very large projects often accounts for the majority of Northern's revenue in any given year. In years 2000-2002, fewer than five customers accounted for at least 75% of annual sales. Sales cycles are very long and projects can be delayed or cancelled for reasons beyond Northern's control. Implementation of large projects can take over twelve months. During that time, numerous factors can contribute to cost overruns and schedule delays that impact profitability. Generally accepted accounting principles require Northern to defer revenue on a significant portion of its contracts until the project is completed. As a result of these factors and others discussed later in this section, Northern's revenue and operating results will vary significantly from year to year and from quarter to quarter within a year.

Distributed Energy has incurred, and expects to continue to incur, substantial losses, and may never become profitable.

Distributed Energy has incurred substantial losses since it was founded and anticipates it will continue to incur substantial losses in the future. As of December 31, 2003, Distributed Energy had an accumulated deficit of approximately $97.2 million. Distributed Energy cannot predict when it will operate profitably, if ever.

Distributed Energy expects to continue to incur expenses related to research and development activities, expansion of its manufacturing facilities and general administrative functions. As a result, Distributed Energy anticipates that it will continue to incur losses until it can cost-effectively produce and sell its hydrogen generators. Even if Distributed Energy does achieve profitability, Distributed Energy may be unable to sustain or increase its profitability in the future.

Proton has experienced performance problems with its hydrogen generators.

Proton has experienced performance problems with certain components of its hydrogen generators, specifically hydrogen sensor modules and cell stacks, which have required component replacement. Further problems related to these or other components may occur and require additional corrective measures. If Proton is unable to solve these problems, potential purchasers of Proton products may decline to purchase them. In addition, if Proton's hydrogen generators fail after purchase, Proton's warranty exposure would increase, resulting in higher costs.

Proton may not be able to generate revenue in the future if it does not complete the development of its regenerative fuel cell systems.

Proton's regenerative fuel cell systems are still in the development stage. Proton does not know when or whether it will successfully complete research and development of commercial regenerative fuel cell systems. If Proton is unable to develop commercial regenerative fuel cell systems, it may not be able to generate future revenue and may not recover the losses it has incurred in attempting to develop these products. If Proton experiences delays in meeting its development milestones or if its regenerative fuel cell systems exhibit technical defects or cannot meet cost or performance goals, including output, useful life and reliability goals, potential purchasers of Proton's regenerative fuel cell systems may decline to purchase them or choose alternative technologies. Proton may be unable to make the substantial technological advances necessary to produce commercial regenerative fuel cell systems that provide the features and performance specifications required by customers at a competitive price. For example, Proton must identify improved hydrogen storage technologies and fuel cell module structures. If Proton is unable to successfully complete these development activities, Proton may be unable to commercially market its regenerative fuel cell systems. In some cases, Proton is attempting to expedite its development efforts by utilizing third parties for important engineering work. These third parties include vendors of hydrogen storage, purification systems, power supply and control components. If these third parties are unable to successfully complete their development activities on Proton's behalf, Proton may be unable to commercially market its regenerative fuel cell systems.

Proton may not be able to grow its business if it does not achieve widespread commercial acceptance of its hydrogen generators in the market for delivered hydrogen.

In addition Proton intends to market its hydrogen generators to small and medium volume users of delivered hydrogen. Proton's business depends on the widespread commercial acceptance of its hydrogen generators, and Proton may be unable to grow its business if Proton's targeted customers do not purchase substantial numbers of Proton's hydrogen generators. Proton's targeted customers, or the distributors whom Proton intends to use to market to these customers, may not purchase Proton's hydrogen generators at all or in sufficient quantities to support the growth of Proton's business. Proton's hydrogen generators will require its target customers to make a substantial initial investment, currently ranging from approximately $40,000 to $100,000 per unit for Proton's HOGEN 40 and H series models. Proton's method of supplying hydrogen by producing it on-site using PEM electrolysis represents a significant departure from conventional means of supplying hydrogen to end users. PEM electrolysis is a new and unproven technology in the markets Proton is targeting, and Proton does not know if its targeted customers will accept Proton's product. Proton is also working to develop and implement design improvements to extend the life of its cell stack components. If Proton is unable to successfully complete these activities, sales of its hydrogen generators may be reduced.

The success of Proton's hydrogen generators as a fuel source for PEM fuel cells depends upon the development of a mass market for PEM fuel cells, and Proton may not be able to generate revenue in the future if this market does not develop.

Proton also intends to market its hydrogen generators for use as fuel generators for PEM fuel cells in a variety of applications, in particular fuel cell vehicles. If a mass market for PEM fuel cells fails to develop or develops more slowly than Proton anticipates, Proton may be unable to generate revenue in the future and recover the losses it will have incurred in the development of its hydrogen generators. PEM fuel cells represent an emerging commercial market, and Proton does not know whether end users will want to use them. The development of a mass market for PEM fuel cells may be affected by many factors outside of Proton's control, including:

- the emergence of newer, more competitive technologies;
- the cost competitiveness of PEM fuel cells compared to existing and new technologies;
- the future cost of hydrogen;
- regulatory requirements;
- consumer perceptions of the safety, reliability and functionality of PEM fuel cells; and
- consumer willingness to try a new product.

In addition, the sole market for vehicular PEM fuel cells is and will continue to be car, bus and other vehicle manufacturers. Automobile manufacturers' interest in vehicular PEM fuel cells has been driven in large part by environmental laws and regulations concerning vehicle emission requirements that have been enacted in California and some northeastern states. If these laws and regulations are not kept in force or do not become widely adopted, the demand for vehicular PEM fuel cells may be limited. Further, automobile manufacturers may be able to use other technologies to meet their regulatory requirements, such as batteries, low emission internal combustion engines and hybrid internal combustion/battery engines. Even if automobile manufacturers decide to develop vehicles powered by PEM fuel cells, it may be many years before substantial numbers of vehicles powered by PEM fuel cell systems are manufactured. Further, there are several other technologies that may be used to generate hydrogen, such as hydrocarbon reforming, and there remains a strong possibility that Proton's means of generating hydrogen will not be used to supply fuel to fuel cells.

Proton may be unable to increase its revenue in the future if the use of renewable energy does not increase.

Proton anticipates that one of the primary uses of its regenerative fuel cell systems will be for storing energy produced by renewable power sources, such as solar, wind and hydroelectric power. If the demand for renewable energy develops more slowly than Proton anticipates, Proton's ability to sell its regenerative fuel cell systems could be impaired, and Proton may be unable to grow its business. The market for renewable energy is still in an early stage of development and the demand for renewable energy will remain limited until the cost of producing energy from renewable sources is substantially reduced. Power from renewable energy sources currently costs significantly more than power derived from nonrenewable sources, such as coal and oil. The growth of the renewable energy market will be dependent on many factors that are outside of Proton's control, such as the emergence of new, more cost-effective power technologies and products, and domestic and international regulatory requirements.

Proton expects to incur significant expenses in expanding its manufacturing facilities and production, and Proton may not be successful in these efforts.

Proton has expanded its manufacturing facilities in anticipation of increased demand for its products. If this demand does not materialize, Proton will not generate sufficient revenue to offset the costs of maintaining and operating these facilities, which could increase Proton's losses and prevent Proton from growing its business.

Proton expects to expand production and may experience delays or problems in its expected expansion that could compromise its ability to increase its sales and grow its business. Factors that could delay or prevent Proton's expected production expansion include:

- the inability to purchase parts or components in adequate quantities or sufficient quality;
- the cost of raw materials;
- the failure to increase assembly and test operations;
- the failure to hire and train additional manufacturing personnel; and
- the failure to develop and implement manufacturing processes and equipment.

If Proton fails to successfully manufacture its products in commercial quantities, it may not be able to increase revenue.

To be financially successful, Proton will have to manufacture its products in commercial quantities at acceptable costs while also preserving the quality levels achieved in manufacturing these products in limited quantities. This presents a number of technological and engineering challenges. Proton may not be successful in developing product designs and manufacturing processes that permit manufacture of its hydrogen generators and regenerative fuel cell systems in commercial quantities at commercially acceptable costs while preserving quality. Currently, Proton sells some of its products for less than it costs to produce them. In addition, Proton will incur significant manufacturing start-up costs and may experience unforeseen delays and expenses in its product design and manufacturing efforts. If the commercialization of Proton's products is delayed, potential purchasers may also decline to purchase them or choose alternative technologies, both of which could impair Proton's ability to generate revenue in the future.

If Proton's suppliers do not supply it with a sufficient amount and quality of components at acceptable prices, Proton may not be able to manufacture its products commercially.

Although Proton generally attempts to use standard components for its products, the proton exchange membrane material and hydrogen purification system used in Proton's products are currently available only from limited sources. Also, Proton may be unable to purchase components of adequate quality or that meet its cost requirements. In addition, to the extent these components are proprietary products of Proton's suppliers, or the processes used by Proton's suppliers to manufacture these components are proprietary, Proton may be unable to obtain comparable components from alternative suppliers. Proton may experience delays in production of its products and its business and financial results would suffer if it fails to identify alternate suppliers, or if Proton's supply is interrupted or reduced or there is a significant increase in cost.

In addition, platinum is a key component of Proton's PEM fuel cells. Platinum is a scarce natural resource and Proton is dependent upon a sufficient supply of this commodity. Proton may not be able to produce commercial products, or the cost of producing products may significantly increase, if there are any shortages in the supply of platinum.

Proton may be unable to sell its products and generate revenue if it fails to establish distribution relationships.

Because Proton intends to sell some of its products through third-party distributors, the financial benefits to Proton of commercializing its products will be dependent on the efforts of others. Proton intends to enter into additional distribution agreements or other collaborative relationships to market and sell its products. If Proton is unable to enter into additional distribution agreements, or if its third-party distributors do not successfully market and sell its products, Proton may be unable to generate revenue and grow its business. Proton may seek to establish relationships with third-party distributors who also indirectly compete with Proton. For example, Proton has targeted industrial gas suppliers as potential distributors of its hydrogen generators. Because industrial gas suppliers currently sell hydrogen in delivered form, adoption by their customers of Proton's hydrogen generation

products could cause them to experience declining demand for delivered hydrogen. For this reason, industrial gas suppliers may be reluctant to become distributors of Proton's hydrogen generators. In addition, Proton's third-party distributors may require Proton to provide volume price discounts and other allowances, or customize its products, either of which could reduce the potential profitability of these relationships.

Proton has historically focused on research and development activities and has limited experience in marketing, selling and servicing its products.

Proton has primarily focused on the research and development of its hydrogen generators and regenerative fuel cell systems. Consequently, Proton's management team has limited experience directing the commercialization efforts that are essential to Proton's future success. To date, Proton only has limited experience marketing, selling and servicing its hydrogen generators, and no experience marketing, selling or servicing its regenerative fuel cell systems. Furthermore, there are very few people anywhere who have significant experience marketing, selling or servicing PEM electrochemical products. Proton will have to expand its marketing and sales organization as well as its maintenance and support capability. Proton may not be successful in its efforts to market and service its products, which would compromise its ability to increase revenue.

Because Northern's projects have a very lengthy sales cycle and are often competitively bid, Northern may expend significant resources on potential customers and projects without achieving actual sales.

Northern depends on a small number of large projects for a majority of its revenue in any given year. Contracts for many of these large projects are awarded by competitive bid. The sales cycle from identification of a project opportunity to award of a contract often exceeds one year. With multiple other bidders on most large project opportunities, Northern often cannot accurately assess its probability of winning the contract prior to its award by the customer. Most large domestic distributed generation project opportunities are discretionary purchases for the customer, and as a result, at the end of the sales cycle many such projects may never materialize for reasons beyond Northern's control. During this lengthy sales cycle, Northern may incur significant expense and expend significant management effort. These factors make it very difficult for Northern to generate firm backlog well in advance of the actual projects and to accurately forecast future sales. If Northern's sales forecasts from a specific project or customer for a particular period are not realized in that period, it may be unable to compensate for the shortfall, which could harm its operating results.

Northern conducts business in many countries that are politically and economically unstable.

The potential for political unrest, acts of terrorism and war, and economic collapse exists in many countries in which Northern does business. The occurrence of any such events at or near the site of Northern's projects could lead to delay, cancellation, or significant damage to Northern's projects or equipment. The occurrence of any such events could also cause harm, injury or death to Northern personnel working on such projects. Any such events could expose Northern to significant liabilities and would therefore adversely impact Northern's operating results and growth.

If Northern fails to develop and commercialize new products and technology, it may not be able to increase its revenues.

While Northern does not derive any revenue from the sale of any products today, its business plan contemplates that a portion of its future revenue will be derived from the sale and/or licensing of new wind turbine and power electronics products which are currently under development and not yet commercially available. Many of these future products and technologies are based on new and unproven designs and it is difficult to predict whether they will be commercially viable. If Northern fails to successfully develop and commercialize these products and technologies, it will be unable to recover the investments it has made in their development and will be unable to grow its revenue from their sales and/or licensing. In addition, Northern is likely to face significant competition in the market for these future products. Many of Northern's competitors in

the markets for these products are larger and better capitalized than Northern, are better established with a worldwide presence, and are already selling competing products in these markets. New technology developments or cost reductions in existing technologies may delay or prevent the development and/or sale of some or all of Northern's planned products or make its planned products uncompetitive or obsolete.

Northern may not be able to grow its revenues in the future if a sustainable market for distributed generation does not develop.

Northern's future growth is based in part on increased use of distributed generation technologies. Distributed generation is an emerging market, and it is difficult to predict the rate at which it will develop. If a sustainable market for distributed generation fails to develop or develops more slowly than Northern anticipates, its ability to grow and achieve profitability will be negatively impacted. Many of the factors that influence the rate of adoption of distributed generation technologies are out of Northern's control. Some such factors that Northern cannot control are:

- utility electric rates;
- changes in federal, state and local regulatory requirements;
- changes in federal and state incentives and subsidies;
- cost, quality, performance and availability of the alternative generating technologies that Northern uses in its onsite power systems;
- costs and availability of natural gas and other fuels used in alternative generating technologies;
- changes in commercial and industrial customers' perceptions regarding distributed generation
- availability of financing for distributed generation vendors, developers and users;
- economic downturns and related reductions in capital spending; and
- demand for and valuation of emissions trading credits generated by distributed generation systems.

Northern's future growth depends on its ability to provide distributed generation systems that deliver electricity at a price that is competitive with the utility grid; significant declines in the price of utility delivered electricity or Northern's inability to continue to reduce the cost of its distributed generation systems could reduce demand for its services and products.

Northern competes mainly on price per delivered kilowatt hour of electricity to the end user. In its domestic markets, Northern is competing against the cost of electricity delivered by the local utilities through the electric grid. The cost of electricity varies widely from utility to utility and from state to state and is subject to change based on factors beyond Northern's control. Northern cannot accurately predict what future electric rates will be and whether or not it can compete effectively against these rates.

The cost per delivered kilowatt hour of electricity generated by Northern's onsite power systems is also based primarily on the following three factors: the cost of the underlying generating technologies, the cost of financing, and the cost of fuel. All these factors are outside of Northern's control.

Costs of alternative generating technologies like solar panels, wind turbines, fuel cells and microturbines have generally been falling over the past several years, but there can be no assurances that they will continue to fall in the future. Without federal or state subsidies or incentives, the cost of these technologies is often not competitive with traditional generating technologies or the cost of utility power. If the costs of these alternative technologies do not continue to fall or subsidies are no longer available, Northern's ability to sell its systems and services based on these technologies will be diminished.

Financing costs are critical to the cost competitiveness of renewable energy systems in particular, because, since the fuel from the wind or sun is free, they represent the single largest operating cost. Financing costs are also highly variable and subject to change beyond Northern's control.

For reciprocating engine or turbines based power systems, fuel is the largest operating cost. The predominant fuel for these systems is natural gas. The price of natural gas has been highly volatile and is currently projected to remain high for years to come based on increased demand and limited domestic supply. Sustained high gas prices reduce the economic benefit of the onsite power systems Northern sells and may therefore result in reduced sales and revenue growth for Northern.

Because Northern's sales are reliant in part on federal and state subsidies and incentives, any reduction in federal and state subsidy programs could harm Northern's business.

Northern's domestic market for distributed generation systems currently benefits from many federal and state programs designed to promote increased use of renewable and alternative generating technologies. The federal government, for example, offers tax credits for energy produced by wind and solar generators. States like California, New York, New Jersey, Connecticut and Massachusetts offer cash incentives which reduce the initial capital cost to customers who invest in renewable and distributed generation systems. All these federal and state incentive and subsidy programs have specific expiration dates and there can be no assurance that these programs will be extended. Termination of these programs may have an adverse impact on Northern's future growth. Also, given the economic downturn and resulting budget deficits, funding for many of the state programs is at risk of being diverted to other needs.

Decreases in the price of oil and gas could reduce demand for Northern's systems, which would have an adverse impact on its revenues, results of operations and financial condition.

A large portion of Northern's current revenue is generated from the sale of remote power systems to the international oil and gas industry for use on remote pipelines and offshore platforms. Demand for Northern's power systems from this market segment depends in part on the current and future commodity price of oil and gas. Higher oil and gas prices stimulate increased development of remote oil and gas fields and related infrastructure, which in turn stimulates increased demand for remote power systems of the type Northern supplies. Conversely, lower oil and gas prices would reduce demand for Northern's systems and have a negative impact on its growth.

Northern depends on a small number of customers, and termination of a project by one or more of these customers could harm Northern's business

In years 2000-2002, over 75% of Northern's annual sales came from five or fewer customers. Typically the sales to these customers come from single contracts to provide highly specialized onsite power systems custom designed and built to meet their specifications. Because such a high percentage of Northern's sales are concentrated in so few contracts, failure on the part of Northern or Northern's customers to perform or deliver on any one of these contracts could have a major impact on Northern's annual operating results. In addition, most of Northern's customer contracts are terminable on short notice. This high concentration of sales in a small number of customers also subjects Northern to a high degree of customer credit risk and risk of non-performance by its vendors. A single vendor's late delivery of a key component required for a project, for example, could significantly delay Northern's completion of the project and trigger liquidated or consequential damages or other penalties as may be stipulated in Northern's contracts with its customers.

Continued uncertainty in domestic and world economies and energy markets may limit Northern's growth.

Current uncertainty among Northern's target customers over the health of the economy and its impact on their business has restricted their capital spending and made it harder for Northern to sell its systems and services. Other market uncertainties that also impact Northern's ability to increase sales include the future of

deregulation of the domestic electricity market, the future price of oil and natural gas, political instability in the Middle East and other regions where it does business, and domestic and international policy responses to the threat of global warming.

Northern relies on third party suppliers and subcontractors for certain components and services, and Northern could suffer losses if these suppliers and subcontractors fail to fulfill its needs.

While most of Northern's components are available from multiple suppliers, many new technologies that Northern uses in its systems are only available from a very limited number of suppliers and in some cases only a single supplier. Often Northern's suppliers custom build components to Northern's specifications for use in a particular project and delayed deliveries, poor quality and warranty issues can delay its projects, reduce its profits and damage its relationships with its end customers. Particularly for newer technologies, technical and financial problems of the manufacturer could also delay Northern's projects, increase its costs and even cause customers to terminate Northern's contracts if Northern's vendors are unable to deliver the key components or technology on which its projects are based.

Particularly in Northern's domestic commercial and industrial projects, Northern relies heavily on electrical, mechanical, civil and structural subcontractors to build and install its systems at its customers' facilities based on detailed specifications and drawings that Northern provide. Often these subcontracted services account for a high percentage of the overall project cost. Northern's subcontractors' failure to perform their services in a timely and quality manner can lead to significant schedule delays, increased costs and performance issues on Northern's projects. These issues can potentially trigger penalties in Northern's contracts, increase its warranty exposure, reduce its profits and damage its relationships with its customers if not managed appropriately.

Northern may not be able to develop and/or retain relationships with strategic partners.

Northern currently works with a number of strategic partners that facilitate and enhance many aspects of its business, including technology development, component supply, sales lead generation, engineering support, and project installation. Northern must continue to expand these relationships and develop new relationships in order to grow its current project based business and its future product based business. Failure to do so would negatively impact Northern's future sales growth and operating results.

Northern's projects are subject to varying levels of sales and other taxes and Northern therefore incurs significant potential tax liability.

Northern has sold and continues to sell its power systems in numerous local, state and foreign jurisdictions. Each jurisdiction's sales and income tax rules and regulations are different and evolving. Northern and its auditors often must make subjective judgments as to whether or not it has established tax nexus in certain jurisdictions where it sells its services and systems and as to whether and how much tax is due on these sales. Northern may be audited at any time by any jurisdiction where it has done business and may be required to pay additional taxes, penalties and interest. There can be no assurances that Northern has not or will not incur additional tax liabilities over and above what is currently recognized in its 2002 audited financial statements and its unaudited 2003 interim financial statements.

Undetected and unanticipated defects in Northern's distributed generation systems could increase Northern's costs and harm its reputation.

Distributed generation systems designed and installed by Northern often use new and untested technologies. Many of these new technologies have limited operating histories and may be subject to malfunction or failure when subjected to prolonged use in non-test conditions. Should these new technologies fail to perform as specified by their vendors, Northern may incur additional warranty and other costs and its relationships with its customers may suffer. Also, many vendors of these new technologies have limited financial resources and may not be able to adequately support their products in the field. All these issues would reduce Northern's growth and profitability.

Northern depends on government contracts for a portion of its revenue and profits.

Northern's government contracts relate to research and development on renewable energy technologies, hybrid system architectures, and advanced power electronics. Changes in government policy toward distributed generation or budget restrictions may reduce or eliminate funding for these types of research and development activities. There can be no assurance that Northern's current contracts will be fully funded or that Northern will be able to secure additional government contracts for similar activities in the future. Northern is also subject to annual audits of its incurred costs on its government contracts by the Defense Contracting Audit Agency. If Northern's actual overhead cost included in its incurred costs are less than the allowable overhead costs billed on these contracts, Northern may be required to refund the excess overhead costs to the government upon completion of the DCAA audit. Such a refund would negatively impact Northern's financial position and its revenue and profits in the year in which such costs were incurred.

If Distributed Energy fails to retain its key personnel and attract and retain additional qualified personnel, it may be unable to develop its products and generate revenue.

Distributed Energy's success depends upon the continued service of its executive officers and other key employees such as manufacturing and research and development personnel. The loss of any of Distributed Energy's executive officers or key employees, especially Walter W. Schroeder or Clint Coleman could impair Distributed Energy's ability to pursue its growth strategy. Distributed Energy does not have employment agreements with any of its key executives. Distributed Energy may not be able to attract, assimilate or retain additional highly qualified personnel in the future.

Distributed Energy currently faces and will continue to face significant competition, which could cause it to lose sales or render its products and services uncompetitive or obsolete.

The markets for delivered hydrogen and reliable backup power are highly competitive. There are a number of companies located in the United States, Canada and abroad that deliver hydrogen, sell hydrogen generation equipment or are developing PEM fuel cell technology. Many of these companies have substantially greater resources than Proton does. Each of these companies has the potential to capture market share in the markets Proton intends to address, which could cause Proton to lose sales and prevent Proton from growing its business. New developments in technology may also delay or prevent the development or sale of some or all of Proton's products or make its products uncompetitive or obsolete. If this were to occur, Proton would not be able to generate sufficient revenue to offset the cost of developing its hydrogen generators and regenerative fuel cell systems.

Proton's regenerative fuel cell systems are one of a number of power technology products being developed today to provide high quality, highly reliable backup power to the existing electric transmission system, or grid. These products include advanced batteries, ultracapacitors, microturbines, flywheels, internal combustion generator sets, superconducting magnetic energy storage devices, other fuel cell types and fuel cells using alternative hydrogen supply applications. Improvements are also being made to the existing electric grid. Technological advances in power technology products and improvements in the electric grid may reduce the attractiveness of Proton's regenerative fuel cell systems.

As the markets for PEM fuel-cell related products, on-site hydrogen generation and backup power develop, other large industrial companies may enter these fields and compete with Proton. These large industrial companies may have the research and development, manufacturing, marketing and sales resources necessary to commercialize hydrogen generators and regenerative fuel cell systems more quickly and effectively than Proton does.

The distributed generation market is also highly competitive and evolving rapidly. Northern faces a wide variety of competitors, including equipment manufacturers, distributors, packagers, system integrators, general contractors, engineering firms, project developers, and energy service companies. Many of Northern's

competitors are significantly larger and better capitalized than Northern, and therefore may be able to devote more resources to the following activities that allow them to establish a competitive advantage in the marketplace:

- sales and marketing of their products and services;
- seller financing for the sale of their product or services;
- development and commercialization of new technologies;
- partnering and other collaborative efforts with sales channel partners, vendors and technology providers;
- expanded design, engineering and other fulfillment and service capabilities; and
- systems and other infrastructure development that reduces costs.

Distributed Energy depends on its intellectual property, and Distributed Energy's failure to protect it could enable competitors to market products with similar features that may reduce demand for Distributed Energy's products.

If Distributed Energy is unable to protect its intellectual property, Distributed Energy's competitors could use its intellectual property to market products similar to its products, which could reduce demand for Distributed Energy's products. Distributed Energy's success depends substantially upon the internally developed technology that is incorporated in its products. Proton Distributed Energy may be unable to prevent unauthorized parties from attempting to copy or otherwise obtain and use its products or technology. Policing unauthorized use of Distributed Energy's technology is difficult, and Distributed Energy may not be able to prevent misappropriation of its technology, particularly in foreign countries where the laws may not protect Distributed Energy's intellectual property as fully as those in the United States. Others may circumvent the trade secrets, trademarks and copyrights that Distributed Energy owns, and any of the U.S. patents or foreign patents owned by Distributed Energy or subsequently issued to Distributed Energy may be invalidated, circumvented, challenged or rendered unenforceable. In addition, Distributed Energy may not be issued any patents as a result of its pending and future patent applications, and any patents issued to Distributed Energy may not have the breadth of claim coverage sought by Distributed Energy.

Most of Distributed Energy's intellectual property is not covered by any patent or patent application. Distributed Energy seeks to protect this proprietary intellectual property, which includes intellectual property that may not be patented or patentable, in part by confidentiality agreements with its distributors and employees. These agreements afford only limited protection and may not provide Distributed Energy with adequate remedies for any breach or prevent other persons or institutions from asserting rights to intellectual property arising out of these relationships.

Distributed Energy could incur substantial costs defending its intellectual property from infringement by others.

Unauthorized parties may attempt to copy aspects of Distributed Energy's products or to obtain and use its proprietary information. Litigation may be necessary to enforce Distributed Energy's intellectual property rights, to protect its trade secrets and to determine the validity and scope of the proprietary rights of others. Any litigation could result in substantial costs and diversion of resources with no assurance of success.

Distributed Energy could incur substantial costs defending against claims that its products infringe on the proprietary rights of others.

The patent situation in the field of PEM fuel cell technology is complex. A large number of patents, including overlapping patents, relating to this technology have been granted worldwide. Distributed Energy is aware of patents in the fuel cell architecture field held by potential competitors and other third parties, including

Ballard Power Systems, General Motors, Giner, H-Power, Oronzio deNora Impianti Electrochemical, Packard Instrument, Plug Power, Shinko Pantec, Siemens, Toyota, United Technologies and Whatman. Third parties could claim infringement by Proton with respect to these patents or other patents or proprietary rights, and Proton may not prevail in any such proceeding.

Northern is aware of a patent held by General Electric with respect to variable-speed wind turbines. If Northern incorporates variable-speed wind turbine technology into future wind-related generation products and is not able to design and engineer non-infringing technology, it may be required to license this technology from General Electric. If Northern is unsuccessful in developing non-infringing technologies, it may be required to cease or redirect its development efforts or obtain licensing, royalty or other agreements. There can be no assurance that Northern can obtain such licensing or other agreements on favorable terms or at all, in which case Northern's ability to execute its business plan, grow its sales and generate a profit may be adversely affected.

In addition, some of Distributed Energy's employees are parties to assignment of invention and nondisclosure agreements with their former employers. These agreements generally grant the former employer rights to technology developed by the employee while employed by the former employer and prohibit disclosure of that technology or other employer information to third parties. Distributed Energy cannot assure that such employers will not assert claims against Distributed Energy or its employees alleging a breach of those agreements or other violations of their proprietary rights or alleging rights to inventions by Distributed Energy's employees, or that Distributed Energy would prevail in any such proceeding.

Any infringement claim against Distributed Energy, whether meritorious or not, could:

- be time-consuming;
- result in costly litigation or arbitration and diversion of technical and management personnel; or
- require Distributed Energy to develop non-infringing technology or to enter into royalty or licensing agreements.

Distributed Energy might not be successful in developing non-infringing technologies. Royalty or licensing agreements, if required, may not be available on terms acceptable to Distributed Energy, or at all, and could significantly harm its business and operating results. A successful claim of infringement against Distributed Energy or its failure or inability to license the infringed or similar technology could require Distributed Energy to pay substantial damages and could harm its business because it would not be able to sell the affected product without redeveloping the product or incurring significant additional expense. In addition, to the extent Distributed Energy agrees to indemnify customers or other third parties against infringement of the intellectual property rights of others, a claim of infringement could require Distributed Energy to incur substantial time, effort and expense to indemnify these customers and third parties and could disrupt or terminate their ability to use, market or sell Distributed Energy's products.

Distributed Energy may be exposed to lawsuits and other claims if its products or systems malfunction or fail, which could increase Distributed Energy's expenses, harm its reputation and prevent Distributed Energy from growing its business.

Any liability for damages resulting from malfunctions or failures of Distributed Energy's products or systems could be substantial and could increase Distributed Energy's expenses and prevent Distributed Energy from growing its business. In particular, hydrogen is a flammable gas and can pose safety risks if not handled properly. Proton has experienced an instance with one of its products where hydrogen appears to have leaked into the ambient oxygen stream resulting in a flame that burned several components in the system. Further investigation of this unit revealed the presence of pinholes in the cell membranes, resulting in hydrogen leakage and cell failure. Although Proton has taken steps to improve safety and reliability in its products, Proton cannot be certain that future similar instances will not occur. In addition, Proton's products may require modifications to operate properly under extreme temperatures. Potential customers will also rely upon Proton's products for

critical needs, such as backup power. A malfunction of Proton's products could result in significant tort or warranty claims. In addition, a well-publicized actual or perceived problem could adversely affect the market's perception of Proton's products. This could result in a decline in demand for Proton's products, which would reduce Proton's revenue and harm its business.

Northern's standard power system warranty includes a one-year warranty period for defects in design, materials and workmanship of its systems. Northern has not provided guarantees of the performance of its systems to date but may be required to do so in the future. Most of its systems are custom designed to individual customers' specifications and may include new and unproven technologies, system architectures, and component configurations. Many of its systems are also located in very remote locations with extremely harsh climates that are difficult and expensive to access. The possibility of system failures could cause Northern to incur significant expense to redesign, reengineer, repair and/or replace defective systems or system components. Furthermore, Northern projects often have high visibility in its target markets, so that any such failures could damage its reputation and limit future sales in these markets.

Government regulations may impair Distributed Energy's ability to market and sell its products.

Proton's products are potentially subject to federal, local and foreign laws and regulations governing, among other things, emissions to air as well as laws relating to occupational health and safety. Proton may incur substantial costs or liabilities in complying with governmental regulations. Proton's potential customers must also comply with numerous laws and regulations, which could affect their interest in Proton's products. Proton could incur potentially significant expenditures in complying with environmental and health and safety laws, regulations and requirements that may be adopted or imposed in the future.

Electricity generation and delivery are both heavily regulated by federal and state governments. While deregulation and restructuring of the U.S. electric industry may ultimately expand the market for distributed generation systems of the type that Northern sells, recent problems associated with deregulation in key domestic markets like California may impose additional barriers to distributed generation. California and other states, for example, allow utilities to impose exit fees, standby charges and other penalties on customers who install distributed generation systems. Federal and state regulations regarding air quality and interconnection to the utility grid also impose additional costs and potential liabilities on our business. Changes in these regulations could reduce or eliminate Northern's access to certain of its target markets.

Distributed Energy's failure to manage growth could harm its business.

Distributed Energy intends to introduce new products, increase its production capacity and develop additional distributor relationships. If Distributed Energy is successful, a significant strain on its senior management team and other resources may result. In addition, Distributed Energy may be required to hire additional senior management personnel. Distributed Energy's ability to manage growth will depend in part on its ability to continue to enhance its operating, financial and management information systems. Distributed Energy's personnel, systems and controls may be unable to support its growth.

Distributed Energy may not be able to obtain sufficient funds to grow its business.

Proton and Northern have regularly needed to raise funds to operate their businesses. Proton believes it may need to raise additional funds to achieve full commercialization of some or all of its products. Northern's project-based business requires a significant amount of capital in order to increase the number and size of projects it can undertake and therefore increase its revenues. If Distributed Energy is unable to raise additional funds when needed, the ability of Proton and Northern to operate and grow their businesses could be impaired. Distributed Energy does not know whether it will be able to secure additional funding or funding on terms acceptable to it. Distributed Energy's ability to obtain additional funding will be subject to a number of factors, including market conditions, its operating performance and investor sentiment. These factors may make the timing, amount, terms and conditions of additional funding unattractive. If Distributed Energy issues additional equity securities,

existing stockholders may experience dilution or be subordinated to any rights, preferences or privileges granted to the new equity holders.

Distributed Energy's revenue and operating results may fluctuate significantly as a result of factors outside of Distributed Energy's control, which could cause the market price of its common stock to decline.

Distributed Energy expects its revenue and operating results to vary significantly from quarter to quarter. As a result, quarterly comparisons of Distributed Energy's financial results are not necessarily meaningful and should not be relied on as an indication of Distributed Energy's future performance. In addition, due to Distributed Energy's stage of development, it cannot predict its future revenue or results of operations accurately. As a consequence, Distributed Energy's operating results may fall below the expectations of securities analysts and investors, which could cause the price of Distributed Energy's common stock to decline. Factors that may affect Distributed Energy's operating results include:

- the status of development of Distributed Energy's technology, products and manufacturing capabilities;
- the cost of raw materials and key components;
- warranty and service cost for products in the field;
- the introduction, timing and market acceptance of new products introduced by Distributed Energy or its competitors;
- the development of strategic relationships and distribution channels;
- general economic conditions, which can affect customers' capital investments and the length of sales cycles;
- the development of vehicular PEM fuel cells and renewable energy markets; and
- government regulation.

Distributed Energy expects to make significant investments in all areas of its business, particularly in research and product development and in expanding its manufacturing capability. Because the investments associated with these activities are relatively fixed in the short-term, Distributed Energy may be unable to adjust its spending quickly enough to offset any unexpected shortfall in its revenue growth. In addition, because Distributed Energy is in the very early stages of selling its products and has a limited number of customers, Distributed Energy expects its order flow to be uneven from period to period.

Distributed Energy's current or planned international operations subject its business to additional risks, which could cause revenues to decline.

For the past three years, Northern has generated a majority of its revenue from sales of remote power projects in the oil and gas and telecommunications markets. Many of these projects are sold to foreign entities and are delivered to locations outside of the United States, such as the Middle East, Eurasia, Africa, and South America. Selling Northern's services internationally exposes it to many additional costs, risks, and potential liabilities, which, if improperly managed, could limit its ability to grow in these markets and adversely impact its operating results. In addition Proton intends to market its hydrogen generators to small and medium volume users of delivered hydrogen. Proton's business depends on the widespread commercial acceptance of its hydrogen generators, and Proton may be unable to grow its business if Proton's targeted customers do not purchase substantial numbers of Proton's hydrogen generators. Proton's targeted customers, or the distributors whom Proton intends to use to market to these customers, may not purchase Proton's hydrogen generators at all or in sufficient quantities to support the growth of Proton's business. Costs, risks and potential liabilities faced by distributed energy as a result of international operations include:

- complying with the commercial and legal requirements of foreign markets, particularly in developing countries;
- obtaining and/or enforcing intellectual property protection;

- overcoming trade barriers such as duties, tariffs and taxes;
- enforcing contract terms and conditions;
- collecting receivables; and
- managing operations and staff across disparate geographic areas.

In addition, a change in the value of the U.S. dollar may make Northern's services and products less competitive in international markets.

Because Distributed Energy relies on third parties to fund a portion of its research and development relating to new products, any decrease in such third party funding could limit its ability to develop new products.

Distributed Energy receives significant external funding from the Department of Energy, the National Renewable Energy Laboratory and other public and private entities for the development of its proprietary products and technology. Changes in government policy toward distributed generation or budget restrictions may reduce or eliminate funding from these sources for these types of research and development activities. If such funding was discontinued, Distributed Energy may not have sufficient internal funding to continue with these development efforts and may therefore have to reduce its development of these products, delay their development or abandon them altogether. Discontinuation or delay in its development of proprietary products and technology could limit Distributed Energy's ability to execute its business plan and may have an adverse impact on its ability to increase revenues and generate a profit. Distributed Energy is also subject to annual audits of its incurred costs on its government contracts by the Defense Contracting Audit Agency, or DCAA, and other agencies. If Distributed Energy's actual overhead cost included in its incurred costs are less than the allowable overhead costs billed on these contracts, Distributed Energy may be required to refund the excess overhead costs to the government upon completion of the DCAA audit. Such refunds would negatively impact Distributed Energy's financial position and its revenue and profits in the year in which such costs were incurred.

The anticipated benefits of the merger may not be realized in a timely fashion, or at all, and Distributed Energy's operations may be adversely affected.

The success of the merger of Proton and Northern into Distributed Energy will depend, in part, on Distributed Energy's ability to realize the growth opportunities and synergies of combining Proton and Northern and to effectively utilize the resources of the combined companies following the merger. The merger involves risks related to the integration and management of acquired operations and personnel. The integration of the businesses will be a complex, time-consuming and potentially expensive process and may disrupt Distributed Energy's business if not completed in a timely and efficient manner. Some of the difficulties that may be encountered by the combined companies include:

- the diversion of management's attention from other ongoing business concerns;
- challenges in enhancing Northern's internal procedures, contracts and systems as needed for it to function as part of a public company;
- the inability to utilize the acquired resources effectively; and
- demonstrating to the combined company's customers, suppliers and partners that the mergers will not result in adverse changes in client service standards or business focus.

If Distributed Energy's management focuses too much time, money and effort to integrate Northern's operations and assets, they may not be able to execute Proton's overall business strategy. Additionally, the combined companies may not progress at the same rates as have been experienced by Proton and Northern, respectively, operating as separate companies in the past.

Distributed Energy's stock price is likely to be highly volatile and may result in substantial losses for investors purchasing shares.

The market price of Distributed Energy's common stock is likely to be highly volatile. The stock market in general, and the market for technology-related stocks in particular, has been highly volatile. As a result, investors in Distributed Energy's common stock may experience a decrease in the value of their common stock regardless of Distributed Energy's operating performance or prospects. Distributed Energy's common stock may not trade at the same levels as other technology-related stocks and technology-related stocks in general may not sustain their current market prices. In addition, an active public market for Distributed Energy's securities may not be sustained.

The trading price of Distributed Energy's common stock could be subject to wide fluctuations in response to:

- Distributed Energy's perceived prospects;
- variations in Distributed Energy's operating results and achievement of key business targets;
- changes in securities analysts' recommendations or earnings estimates;
- differences between Distributed Energy's reported results and those expected by investors and securities analysts;
- announcements of new products by Distributed Energy or its competitors;
- market reaction to any acquisition, joint venture or strategic investments announced by Distributed Energy or its competitors; and
- general economic or stock market conditions unrelated to Distributed Energy's operating performance.

In the past, securities class action litigation has often been instituted against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and divert management's attention and resources.

Distributed Energy's executive officers, directors and their affiliates hold a large percentage of Distributed Energy's stock and their interests may differ from other stockholders.

Distributed Energy's directors, executive officers and individuals or entities affiliated with Distributed Energy's directors as a group beneficially own, approximately 20% of Proton's outstanding common stock at December 31, 2003. If these stockholders choose to act or vote together, they will have the power to significantly influence the election of Distributed Energy's directors, and the approval of any other action requiring the approval of Distributed Energy's stockholders, including any amendments to Distributed Energy's certificate of incorporation and mergers or sales of substantially all of Distributed Energy's assets. In addition, without the consent of these stockholders, Distributed Energy could be prevented from entering into transactions that could be beneficial to it or its other stockholders. Also, third parties could be discouraged from making a tender offer or bid to acquire Distributed Energy at a price per share that is above the then-current market price.

The provisions of Distributed Energy's certificate of incorporation and bylaws and Delaware law could inhibit a takeover that stockholders may consider favorable and diminish the voting rights of the holders of Distributed Energy common stock.

There are provisions in Distributed Energy's certificate of incorporation and bylaws that make it more difficult for a third party to acquire, or attempt to acquire, control of Distributed Energy, even if a change in control may be considered favorable by Distributed Energy's stockholders. For example, Distributed Energy's board of directors has the authority to issue up to 5,000,000 shares of preferred stock. The board of directors can fix the price, rights, preferences, privileges and restrictions of the preferred stock without any further vote or action by Distributed Energy stockholders. The issuance of shares of preferred stock may delay or prevent a change in control transaction. As a result, the market price of Distributed Energy's common stock and the voting and other rights of its stockholders may be adversely affected. The issuance of shares of preferred stock may result in the loss of voting control to other stockholders.

Distributed Energy's certificate of incorporation and bylaws contain other provisions that could have an anti-takeover effect, including:

- only one of the three classes of directors is elected each year;
- stockholders have limited ability to remove directors;
- stockholders cannot take actions by written consent;
- stockholders cannot call a special meeting of stockholders; and
- stockholders must give advance notice to nominate directors or submit proposals for consideration at stockholder meetings.

In addition, Distributed Energy is subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which regulates corporate acquisitions. These provisions could discourage potential acquisition proposals and could delay or prevent a change in control transaction. They could also have the effect of discouraging others from making tender offers for Distributed Energy's common stock. These provisions may also prevent changes in Distributed Energy's management.

Distributed Energy's failure to comply with NASDAQ's listing standards could result in its delisting by NASDAQ from the NASDAQ National Market and severely limit the ability to sell Distributed Energy's common stock.

Distributed Energy's common stock is traded on the NASDAQ National Market. Under NASDAQ's listing maintenance standards, if the closing bid price of Distributed Energy common stock is under $1.00 per share for 30 consecutive trading days, NASDAQ will notify Distributed Energy that it may be delisted from the NASDAQ National Market. If the closing bid price of Distributed Energy common stock does not thereafter regain compliance for a minimum of 10 consecutive trading days during the 90 days following notification by NASDAQ, NASDAQ may delist Distributed Energy's common stock from trading on the NASDAQ National Market. There can be no assurance that Distributed Energy's common stock will remain eligible for trading on the NASDAQ National Market. In addition, if Distributed Energy's common stock is delisted, Distributed Energy's stockholders would not be able to sell Distributed Energy common stock on the NASDAQ National Market, and their ability to sell any of Distributed Energy's common stock would be severely if not completely limited.

ITEM 7A. *Quantitative and Qualitative Disclosures About Market Risk*

See also the risk factors as discussed in Item 7. We invest in marketable securities consisting of U.S. government and agency securities that are held by two major banking institutions. Distributed Energy's marketable securities portfolio of approximately $69.6 million includes five callable agency securities with a fair market value totaling approximately $23.4 million. These securities generate a higher relative rate of interest for Distributed Energy; in return, the embedded call option gives the issuer the right to buy back the security. Interest rate risk is the major price risk facing our investment portfolio. Such exposure can subject us to economic losses due to changes in the level or volatility of interest rates. Generally, as interest rates rise, prices for fixed income instruments will fall. As rates decline the inverse is true. We attempt to mitigate this risk by investing in high quality issues of short duration. We do not expect any material loss from our marketable securities investments and believe that our potential interest rate exposure is not material.

The following table provides information about the Distributed Energy's financial instruments that are sensitive to changes in interest rates:

	Fair Value of Investments At Expected Maturity Date			
	2005	**2006**	**2007**	**Total**
Investments				
Fixed Rate Investments	$46,174,423	$22,981,834	$416,166	$69,572,423
Average Interest	5.00%	1.58%	5.00%	3.87%

ITEM 8. ***Financial Statements and Supplementary Data***

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Report of Independent Auditors

To the Board of Directors and
Stockholders of Distributed Energy Systems Corp.:

In our opinion, the consolidated financial statements listed in the index appearing under Item 15(a)(1) present fairly, in all material respects, the financial position of Distributed Energy Systems Corp. and its subsidiaries at December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedules listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedules are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial statement schedules based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the financial statements, the Company adopted the provisions of FASB Statement No. 141, *Business Combinations,* FASB Statement No. 142, *Goodwill and Other Intangible Assets*, and FASB Statement No. 131, *Disclosures about Segments of an Enterprise and Related Information.*

/s/ PRICEWATERHOUSECOOPERS LLP

Hartford, Connecticut
February 24, 2004

Part II—FINANCIAL INFORMATION

ITEM 1.
FINANCIAL STATEMENTS

DISTRIBUTED ENERGY SYSTEMS CORP.

CONSOLIDATED BALANCE SHEETS

	December 31, 2003	December 31, 2002
ASSETS		
Current assets:		
Cash and cash equivalents	$ 4,275,468	$ 16,415,337
Marketable securities (Note 3)	69,572,423	133,944,034
Current portion of restricted cash (Note 2)	5,387,457	—
Accounts receivable, less allowances of $163,973 and $0, respectively	3,352,183	874,579
Costs in excess of billings on contracts in progress	421,355	—
Inventories (Note 4)	2,519,720	4,084,831
Deferred costs (Note 7)	3,321,550	1,613,546
Interest receivable	754,643	1,256,630
Other current assets	834,775	907,498
Total current assets	90,439,574	159,096,455
Fixed assets, net (Note 5)	21,726,948	16,553,182
Long-term portion of restricted cash (Note 2)	1,370,777	419,250
Intangible assets, net (Notes 2, 8 and 10)	5,515,996	—
Goodwill (Notes 2, 8 and 10)	24,191,187	—
Other assets, net	222,227	236,517
Total assets	$143,466,709	$176,305,404
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt (Note 11)	$ 350,400	$ 335,400
Current portion of capital lease (Notes 5 and 11)	89,794	—
Accounts payable	2,901,720	674,069
Accrued expenses (Note 6)	4,130,447	677,184
Accrued construction costs	—	473,669
Accrued compensation	1,130,009	386,210
Accrued taxes (Note 14)	1,043,619	181,195
Accrued service costs (Note 14)	23,300	2,093,046
Billings in excess of costs on contacts in progress	158,606	—
Deferred revenue (Note 7)	3,557,124	2,704,015
Customer advances	251,031	53,078
Total current liabilities	13,636,050	7,577,866
Long term liabilities:		
Long-term debt (Note 11)	6,090,232	6,440,632
Long-term portion of capital lease (Notes 5 and 11)	2,627,525	—
Total liabilities	22,353,807	14,018,498
Commitments and contingencies (Note 14)		
Stockholders' equity (Note 12):		
Preferred stock, undesignated, $.01 par value per share; 5,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $.01 par value; 65,000,000 shares authorized; 35,356,848 and 33,451,084 shares issued and outstanding, respectively	353,568	334,511
Additional paid-in capital	220,207,640	242,025,701
Unearned compensation	(2,277,860)	(660,166)
Accumulated other comprehensive income (Note 3)	62,408	1,052,009
Accumulated deficit	(97,232,854)	(80,465,149)
Total stockholders' equity	121,112,902	162,286,906
Total liabilities and stockholders' equity	$143,466,709	$176,305,404

The accompanying notes are an integral part of the consolidated financial statements.

DISTRIBUTED ENERGY SYSTEMS CORP.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2003	2002	2001
Contract revenue	$ 2,965,466	$ 3,444,546	$ 1,215,465
Product revenue	1,228,682	1,269,500	1,752,556
Total revenues	4,194,148	4,714,046	2,968,021
Costs and expenses:			
Costs of contract revenue	3,301,170	2,355,091	1,001,306
Costs of production	2,177,817	4,995,201	2,533,841
Research and development	7,716,326	8,792,735	6,500,129
General and administrative	10,069,443	7,877,165	6,950,296
Total costs and expenses	23,264,756	24,020,192	16,985,572
Loss from operations	(19,070,608)	(19,306,146)	(14,017,551)
Interest income	2,535,360	5,894,331	8,953,717
Interest expense	(242,756)	(91,785)	(3,721)
Loss on foreign exchange	(1,159)	—	—
Gain on sale of marketable securities	11,458	23,759	113,470
Net loss	$(16,767,705)	$(13,479,841)	$ (4,954,085)
Basic and diluted net loss per share	$ (0.50)	$ (0.40)	$ (0.15)
Shares used in computing basic and diluted net loss per share	33,829,983	33,346,794	33,161,301

The accompanying notes are an integral part of the consolidated financial statements.

DISTRIBUTED ENERGY SYSTEMS CORP.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS

	Common Stock		Additional Paid-In Capital	Unearned Compensation	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity	Total Comprehensive Loss
	Shares	Amount						
Balance at December 31, 2000	33,088,043	$330,880	$242,092,743	$(2,374,361)	$ 289,000	$(62,031,223)	$178,307,039	
Issuance of common stock	13,829	138	67,397	—	—	—	67,535	
Issuance of common stock upon exercises of stock options	126,623	1,267	25,142	—	—	—	26,409	
Unearned compensation related to stock option grants	—	—	(172,452)	172,452	—	—	—	
Amortization of unearned compensation	—	—	—	754,280	—	—	754,280	
Issuance of stock option awards	—	—	22,050	—	—	—	22,050	
Change in unrealized gain on marketable securities (Note 3)	—	—	—	—	1,803,949	—	1,803,949	$ 1,803,949
Net loss	—	—	—	—	—	(4,954,085)	(4,954,085)	(4,954,085)
Total comprehensive loss	—	—	—	—	—	—	—	(3,150,136)
Balance at December 31, 2001	33,228,495	332,285	242,034,880	(1,447,629)	2,092,949	(66,985,308)	176,027,177	
Issuance of common stock	32,571	326	74,183	—	—	—	74,509	
Issuance of common stock upon exercises of stock options	190,018	1,900	45,689	—	—	—	47,589	
Unearned compensation related to stock option grants	—	—	(129,051)	129,051	—	—	—	
Amortization of unearned compensation	—	—	—	658,412	—	—	658,412	
Change in unrealized gain on marketable securities (Note 3)	—	—	—	—	(1,040,940)	—	(1,040,940)	(1,040,940)
Net loss	—	—	—	—	—	(13,479,841)	(13,479,841)	(13,479,841)
Total comprehensive loss	—	—	—	—	—	—	—	(14,520,781)
Balance at December 31, 2002	33,451,084	334,511	242,025,701	(660,166)	1,052,009	(80,465,149)	162,286,906	
Issuance of common stock	33,436	334	69,717	—	—	—	70,051	
Issuance of common stock upon exercises of stock options	468,324	4,683	115,527	—	—	—	120,210	
Issuance of common stock for merger consideration	1,404,004	14,040	3,903,131	—	—	—	3,917,171	
Issuance of stock options for merger consideration	—	—	4,308,063	(2,280,004)	—	—	2,028,059	
Issuance of warrants for merger consideration	—	—	3,751,878	—	—	—	3,751,878	
Amortization of unearned compensation	—	—	(117,247)	662,310	—	—	545,063	
Issuance of stock option awards	—	—	78,167	—	—	—	78,167	
Return of capital	—	—	(33,927,297)	—	—	—	(33,927,297)	
Change in unrealized gain on marketable securities (Note 3)	—	—	—	—	(989,601)	—	(989,601)	(989,601)
Net loss	—	—	—	—	—	(16,767,705)	(16,767,705)	(16,767,705)
Total comprehensive loss	—	—	—	—	—	—	—	$(17,757,306)
Balance at December 31, 2003	35,356,848	$353,568	$220,207,640	$(2,277,860)	$ 62,408	$(97,232,854)	$121,112,902	

The accompanying notes are an integral part of the consolidated financial statements.

DISTRIBUTED ENERGY SYSTEMS CORP.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2003	2002	2001
Cash flows from operating activities:			
Net loss	$ (16,767,705)	$ (13,479,841)	$ (4,954,085)
Adjustments to reconcile net loss to net cash used in operations:			
Depreciation and amortization	1,729,905	987,340	541,472
Amortization of premiums on securities	1,329,589	1,329,041	691,935
Non-cash stock-based expense	623,230	658,412	776,330
Loss on disposal of assets	21,555	187,467	54,879
Gain from sale of marketable securities	(11,458)	(23,759)	(113,470)
Changes in operating assets and liabilities, excluding effect of acquisition:			
Accounts receivable	71,511	136,680	(721,443)
Inventories and deferred costs	711,618	(2,751,470)	(1,493,490)
Costs in excess of billings	(309,147)	—	—
Other current assets	763,744	278,402	170,080
Other assets	(12,740)	(16,950)	(203,904)
Accounts payable and accrued expenses	(2,573,892)	1,328,689	2,068,164
Income taxes payable	(11,903)	72,097	(40,901)
Billings in excess of costs	(662)	—	—
Deferred revenue and contract advances	565,599	1,362,872	202,370
Net cash used in operating activities	(13,870,756)	(9,931,020)	(3,022,063)
Cash flows from investing activities:			
Purchases of fixed assets	(1,753,584)	(10,564,827)	(6,542,005)
Proceeds from the sale of fixed assets	10,558	15,058	—
Purchases of marketable securities	(261,441,061)	(104,965,136)	(189,599,533)
Proceeds from maturities and sales of marketable securities	323,504,940	134,057,881	198,831,018
Cash paid for acquisition, including transaction costs, net of cash acquired	(18,662,166)	—	—
Restricted cash	(5,855,364)	—	—
Issuance of related party note	—	—	(275,000)
Proceeds from repayment of related party note	—	244,276	30,724
Net cash provided by investing activities	35,803,323	18,787,252	2,445,204
Cash flows from financing activities:			
Borrowings from long-term debt	—	5,610,032	1,166,000
Debt principal payments	(335,400)	—	—
Payment of long-term debt origination costs	—	(9,924)	(206,313)
Proceeds from sale of common stock, net	70,051	74,509	67,535
Proceeds from exercise of stock options	120,210	47,589	26,409
Return of capital	(33,927,297)	—	—
Net cash (used in) provided by financing activities	(34,072,436)	5,722,206	1,053,631
Net (decrease) increase in cash	(12,139,869)	14,578,438	476,772
Cash and cash equivalents at beginning of year	16,415,337	1,836,899	1,360,127
Cash and cash equivalents at end of year	$ 4,275,468	$ 16,415,337	$ 1,836,899
Cash paid during the period for interest	$ 242,210	$ 171,466	$ —

Supplemental schedule of non-cash investing and financing activities

The Company purchased all of the capital stock of Northern for a combination of cash, Distributed Energy stock, options and warrants, as described in Note 8 of the consolidated financial statements. In conjunction with the acquisition, liabilities were assumed as follows:

Fair value of assets acquired	$ 40,683,478
Cash paid, including transaction costs	(20,294,803)
Fair value of common stock	(3,917,171)
Fair value of options	(4,308,063)
Fair value of warrants	(3,751,878)
Liabilities assumed	8,411,563

The accompanying notes are an integral part of the consolidated financial statements.

DISTRIBUTED ENERGY SYSTEMS CORP.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. FORMATION AND OPERATIONS OF THE COMPANY

Distributed Energy Systems Corp. (the "Company" or "Distributed Energy") was incorporated in Delaware on May 19, 2003 to create and deliver products and solutions to the new energy marketplace, giving users greater control over their energy cost, quality, and reliability. Distributed Energy brings together two established businesses: Proton Energy Systems, Inc. ("Proton") and Northern Power Systems, Inc. ("Northern").

On December 10, 2003, Distributed Energy announced the completion of its acquisition of Northern (the "Acquisition"). The merger was accounted for as a purchase of Northern by Distributed energy, Proton was merged into Distributed energy as a subsidiary. As part of the acquisition, each outstanding share of Proton, a public company traded on the NASDAQ and a manufacturer of hydrogen generators and regenerative fuel cell systems, was exchanged for a share of Distributed Energy common stock. Together, as subsidiaries of Distributed Energy, Proton and Northern plan to offer an array of practical energy technologies, including Proton's advanced hydrogen generation products and Northern's renewable and fossil-fuel power systems. At the close of market on December 10, 2003, the NASDAQ National Market ceased trading of Proton shares. Effective December 11, 2003, NASDAQ began trading shares of Distributed Energy on the National Market under the ticker symbol "DESC." The results of operations of Northern have been included in the financial statements of the Company as of December 11, 2003.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Significant accounting policies followed in the preparation of these financial statements are as follows:

Principles of Consolidation

The consolidated financial statements include the accounts of Distributed Energy and its wholly owned subsidiaries, Proton and Northern after elimination of significant intercompany transactions. The financial statements of Proton include the accounts of its wholly owned limited liability company, Technology Drive LLC, after elimination of significant intercompany transactions. The financial statements of Northern include the accounts of its wholly owned limited liability company, NPS Condo Association, after elimination of significant intercompany transactions. The operating results of Northern are included only as of December 11, 2003.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue Recognition

The Company generates revenue from two principal sources: product sales and long-term contracts.

Product Revenue:

For product sales, the Company records revenue when a firm sales agreement is in place, delivery has occurred, sales price is fixed or determinable, and collectibility is reasonably assured. If customer acceptance of products is not assured, revenue is recorded only upon formal customer acceptance. Customer acceptance

provisions included in the Company's product sales agreements include written acceptance from the customer, acceptance upon servicing and installation of the equipment, and acceptance after a period of time.

During the fourth quarter of 2001, Proton determined that sufficient warranty history existed to begin recognizing revenue upon delivery of its HOGEN 40 units. Accordingly, during the first three quarters of 2002, the Company recognized revenue and the related cost of sales upon delivery of its HOGEN 40 units. In the fourth quarter of 2002, Proton discovered performance issues related to the operation of cell stacks and associated sensor in its HOGEN 40 series units. Since these performance issues seemed to preclude revenue recognition upon shipment, beginning in the fourth quarter of 2002, Proton has deferred revenue and costs on its HOGEN 40 units until the expiration of the product warranty period. The Company also deferred revenue and costs on its HOGEN 380 products until the expiration of the product warranty period. The Company will continue to defer revenue and costs on HOGEN 40 and HOGEN 380 delivered products until the related warranty costs are estimable at the time of delivery. The Company only defers production costs on its delivered products to the extent that such production costs are not in excess of the sales price and realization is reasonably assured.

In the fourth quarter of 2003, the Company determined that it had adequate product warranty information and experience to begin recognizing product revenue related to sales of its laboratory hydrogen generators upon shipment. As a result the Company recognized into revenue previously deferred revenue of $378,000.

Contract Revenue:

The Company derives contract revenues from government sponsored research and development contracts and from commercial customers. For government sponsored research and development contracts which are fixed price, fixed-price-incentive, or cost-reimbursement contracts which do not require the Company to meet specific obligations, revenue is recorded as work is performed. For those research and development contracts which require the Company to meet specified obligations, including delivery and acceptance obligations, amounts advanced are recognized as contract liabilities until such obligations are met. Once the obligations are met, the amounts are recognized as contract revenue.

The Company principally generates commercial contract revenue from projects in its remote infrastructure, on-site generation, and renewable energy fields. For projects which do not require the Company to meet specific delivery and acceptance obligations or whose duration is expected to be greater than three months, revenue is recognized utilizing the percentage-of-completion method, which is based on the relationship of costs incurred to total estimated contract costs. For all other commercial contracts, the Company recognizes revenue under the completed contract method.

Adjustments to cost estimates are made periodically and losses expected to be incurred on contracts in progress are charged to operations in the period such losses are determined. The aggregate of costs incurred and income recognized on uncompleted contracts in excess of related billings as well as deferred costs are shown as current assets. The aggregate of billings on uncompleted contracts in excess of related costs incurred and income recognized as well as deferred revenue are shown as current liabilities. At December 31, 2003 deferred costs related to contracts being accounted for under the completed contract method were $889,120. At December 31, 2003 deferred revenue related to contracts being accounted for under the completed contract method was $642,130.

The Company earns revenue from the rental of its HOGEN products. The Company accounts for the agreements as operating leases under the provisions of Statement of Financial Accounting Standards (SFAS) No. 13, "Accounting for Leases." The agreements are cancelable at any time by either party without penalty. Rental revenue is recognized month-to-month as services are performed over the term of the rental agreements. Rental revenue and cost of rental revenue are contained in the product revenue line and cost of production line of the statement of operations, respectively.

Shipping and Handling Costs

All costs incurred in the shipping and handling of customers' goods are included in general and administrative expenses. For the years ended December 31, 2003, 2002, and 2001, the amount of shipping and handling costs included in general and administrative expenses was $45,220, $24,227, and $18,933, respectively.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturity dates of three months or less as of the purchase date to be cash equivalents. The Company invests excess cash primarily in a money market account at a major banking institution, which is subject to credit and market risk.

Restricted Cash

As part of the Acquisition, approximately $2.9 million of the purchase price was set aside by Distributed Energy in an escrow account, two-thirds of which is payable one year from the acquisition date (December 10, 2004) and the remainder is payable two years from the acquisition date (December 10, 2005). As such, approximately $1.9 million is included within restricted cash as part of current assets and approximately $952,000 is included within restricted cash as part of long-term assets.

At December 31, 2003 Proton has guaranteed $3 million of performance bonds issued by a financial institution on behalf of Northern. Northern, in connection with its new debt facility and in support of certain of its commercial contracts, also maintains approximately $484,000 of restricted cash. These amounts are included within restricted cash as part of current assets.

In connection with the construction of its new Wallingford facility, Proton entered into a sales and use tax exemption program with the Connecticut Development Authority. As part of that program, Proton was required to place cash in escrow. This restricted cash of approximately $419,000 is included within restricted cash as part of long-term assets.

Marketable Securities

The Company classifies its entire investment portfolio as available for sale as defined in SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." At December 31, 2003 and 2002 the Company's investment portfolio consisted of U.S. government and agency securities that are held by two major banking institutions.

Securities are carried at fair value with the unrealized gains and losses reported as a separate component of stockholders' equity. The specific identification method was used to determine cost in computing the unrealized gain or loss.

Fair Value of Financial Instruments

Our financial instruments, including cash, cash equivalents, accounts receivable, and accounts payable are carried at cost, which approximates their fair value because of the short-term maturity of these instruments.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as changes in equity other than transactions resulting from investments by owners and distributions to owners.

Detail on unrealized gains and losses and amounts of gains and losses reclassified out of accumulated other comprehensive loss are as follows:

	2003	2002	2001
Net loss	(16,767,705)	(13,479,841)	(4,954,085)
Reclassification adjustments for gains included in net loss	(11,458)	(23,759)	(113,470)
Unrealized gain (loss) arising during the year	(978,143)	(1,017,181)	1,917,419
Total comprehensive loss	(17,757,306)	(14,520,781)	(3,150,136)

Allowance for Doubtful Accounts

The Company evaluates credit risk on its accounts receivable and estimates an allowance for doubtful accounts accordingly. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical loss experience, adverse situations that may affect a customer's ability to repay, and prevailing economic conditions. The Company makes adjustments to its allowance if the evaluation of allowance requirements differs from the actual aggregate reserve. This evaluation is inherently subjective and estimates may be revised as more information becomes available.

Inventory

Inventory is recorded at the lower of cost or market value. Cost is determined by the first-in, first-out method. The Company evaluates the adequacy of its inventory reserves on a periodic basis. The evaluation includes a review of quantities of materials on hand in excess of requirements based upon current and estimated future product offerings. This evaluation is inherently subjective and estimates may be revised as more information becomes available.

Fixed Assets

Fixed assets are stated at cost and are depreciated using the straight-line method over the following estimated useful lives by asset category:

Asset Category	Estimated Useful Life
Buildings	30 years
Capital lease asset	30 years
Machinery and equipment	7 years
Leasehold improvements	Shorter of remaining life of lease or 7 years
Office furniture, fixtures and equipment	3-7 years
Rental Equipment	3 years

When assets are sold or retired, the related cost and accumulated depreciation are removed from their respective accounts and any resulting gain or loss is included in income. The Company periodically reviews the carrying value of its fixed assets to assess recoverability based upon the expectation of non-discounted future cash flows. Prior to the Acquisition, Northern capitalized $47,000 of interest related to the construction of the Company's new Vermont facility, this facility is the only capital lease asset. The Company capitalized $0, $101,810 and $0 of interest for the year ended December 31, 2003, 2002, and 2001 respectively, related to the construction of the Company's new Connecticut facility.

Goodwill and Intangible Assets

As part of the Acquisition, the Company recorded approximately $24.2 million of goodwill and $5.7 million in intangible assets. Goodwill represents costs in excess of fair values assigned to the underlying net assets of the acquired business. Intangible assets include acquired technologies, backlog, trade name, and non-compete agreements. Of the $5.7 million in intangible assets, $4.2 million are intangible assets with a useful life ranging from 1-7 years and $1.5 million are intangible assets with indefinite lives. The intangible assets balance, net of amortization, is $5.5 million at December 31, 2003.

The Company has adopted the provisions of Statement of Financial Accounting Standards ("SFAS") No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." These standards require the use of the purchase method of accounting for business combinations, set forth the accounting for the initial recognition of acquired intangible assets and goodwill, and describe the accounting for intangible assets and goodwill subsequent to initial recognition. Under the provisions of these standards, goodwill and certain intangible assets are deemed to have indefinite lives and are no longer subject to amortization. All other intangible assets are amortized over their estimated useful lives. SFAS 142 requires that goodwill be tested for impairment at the reporting unit level (operating segment or one level below an operating segment) on an annual basis and between annual tests in certain circumstances. The performance of the test involves a two-step process. The first step of the impairment test involves comparing the fair value of the Company's reporting units with the reporting unit's carrying amount, including goodwill. The Company generally determines the fair value of its reporting units using the expected present value of future cash flows, giving consideration to the market comparable approach. If the carrying amount of the Company's reporting units exceeds the reporting unit's fair value, the Company performs the second step of the goodwill impairment test to determine the amount of impairment loss. The second step of the goodwill impairment test involves comparing the implied fair value of the Company's reporting unit's goodwill with the carrying amount of that goodwill. Intangible assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its eventual disposition. Measurement of any impairment loss for intangible assets that management expects to hold and use is based on the amount the carrying value exceeds the fair value of the asset.

Research and Development

Research and development costs are expensed as incurred.

Warranty Costs

The Company's warranty policy is limited to replacement parts and services and generally expires one year from date of shipment or contract completion. Estimated warranty obligations are recorded in the period in which the related revenue is recognized. The Company quantifies and records an estimate for warranty related costs based on the Company's actual historical warranty experience and the current repair costs. Adjustments are made to accruals as warranty claim data and historical experience warrant. Should the Company experience actual repair costs that are higher than the estimated repair costs used to calculate the provision, the Company's operating results for the period or periods in which such additional costs materialize will be adversely impacted.

The changes in accrued product and service warranties for the year-ended December 31, 2002 and 2003 are as follows:

Balance as of January 1, 2002	$ 102,866
Warranties issued in 2002	146,700
Adjustments to provision	6,200
Warranty claims	(169,831)
Balance as of December 31, 2002	$ 85,935
Balance as of January 1, 2003	$ 85,935
Warranties assumed in Acquisition	254,681
Warranties issued in 2003	56,418
Adjustments to provision	(14,179)
Warranty claims	(56,565)
Balance as of December 31, 2003	$ 326,290

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities. A valuation allowance is established against net deferred tax assets if, based on the weight of available evidence, it is more likely than not that some or all of the net deferred tax assets will not be realized.

Concentration of Risks

Concentration of credit risk exists with respect to cash and cash equivalents, accounts receivable, investments and vendors. The Company maintains its cash and cash equivalents and investments with high quality financial institutions. In addition, certain critical product components are only available from one source for which the source maintains proprietary rights. At times, amounts may exceed federally insured deposit limits.

For the years ended December 31, 2003 and 2002, contract revenue from government-sponsored agencies accounted for approximately 29% and 73% of total revenue, respectively. For the year ended December 31, 2003, sales to one international customer totaled approximately 18% of total revenue. At December 31, 2003 and 2002, accounts receivable from government-sponsored agencies accounted for approximately 18% and 60% of total accounts receivable, respectively. At December 31, 2003, accounts receivable from two customers accounted for approximately 29% and 12%, respectively, of total accounts receivable.

At December 31, 2003 and 2002, unbilled accounts receivable from government-sponsored agencies was $13,934 and $293,053, respectively. All of these receivables are considered trade receivables, include no retainage amounts, had no uncertainty surrounding ultimate realization, and were all expected to be paid within one year. For the years ended December 31, 2003 and 2002, one and six customers comprised 68% and 59% of product revenue, respectively.

Loss per Share

Basic EPS is calculated by dividing income or loss attributable to common stockholders by the weighted average common shares outstanding. Diluted EPS is calculated by adjusting weighted average common shares outstanding by assuming conversion of all potentially dilutive shares. In periods of net loss as recorded, no effect

is given to potentially dilutive securities, since the effect would be antidilutive. No effect has been given to the assumed exercise of 389,079, 781,562, and 1,409,541 common stock options outstanding for the years ended December 31, 2003, 2002, and 2001, respectively, and 50,000 stock warrants outstanding in each period since the effect would be antidilutive for all reporting periods.

Segment Reporting

The Company, subsequent to the December 10, 2003 Acquisition, operates in two reportable segments, Proton Energy Systems, Inc., and Northern Power Systems, Inc., as defined in Note 17, determined in accordance with SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." The consolidated results of operations for 2003 include the full year of Proton's operations and the period from December 11, 2003 through December 31, 2003 for Northern and Distributed Energy, the holding company. The net loss for the Northern segment for the period from December 11, 2003 was $727,000 (or $0.02 per share).

Stock-Based Compensation

Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation," as amended by SFAS No. 148, "Accounting for Stock-Based Compensation—Transition and Disclosure," prescribes accounting and reporting standards for all stock-based compensation plans, including employee stock option plans. As allowed by SFAS No. 123, the Company has elected to continue to account for stock-based compensation issued to employees using the intrinsic value method in accordance with Accounting Principles Board (APB) Opinion No. 25, "Accounting for Stock Issued to Employees," and related Interpretations. Under APB 25, compensation expense is computed to the extent that the fair market value of the underlying stock on the date of grant exceeds the exercise price of the employee stock option or stock award. Compensation so computed is then recognized over the vesting period.

The Company accounts for stock-based compensation issued to non-employees in accordance with SFAS 123 and the consensus in Emerging Issues Task Force ("EITF") 96-18. These pronouncements require the fair value of equity instruments given as consideration for services rendered to be recognized as a non-cash charge to income over the shorter of the vesting or service period. The equity instruments must be revalued on each subsequent reporting date until performance is complete with a cumulative catch-up adjustment recognized for any changes in their fair value.

In the event the Company is required to record compensation expense that is currently only being disclosed under SFAS 123, an adjustment to increase net loss in such period would result. The following table illustrates the effect on net loss and loss per share had compensation costs for the stock-based compensation plan been determined based on grant date fair values of awards under the provisions of SFAS No. 123, for the years ended December 31:

	2003	2002	2001
Net loss:			
As reported	$(16,767,705)	$(13,479,841)	$(4,954,085)
Add: Stock-based employee compensation expense included in net loss	542,868	684,057	716,319
Less: Total stock-based employee compensation expense determined under fair value-based method for all awards	(5,180,606)	(6,299,739)	(4,826,621)
Pro forma	$(21,405,443)	$(19,095,523)	$(9,064,387)
Net loss per share, basic and diluted			
As reported	$ (0.50)	$ (0.40)	$ (0.15)
Pro forma	$ (0.63)	$ (0.57)	$ (0.27)

Recent Accounting Pronouncements

On December 17, 2003, the SEC's Office of the Chief Accountant and Division of Corporation Finance issued Staff Accounting Bulletin ("SAB") 104, Revenue Recognition. The SAB updates portions of the interpretive guidance included in Topic 13 of the codification of Staff Accounting Bulletins (SAB 103 codification) in order to make the guidance consistent with current authoritative accounting literature. The principal revisions relate to the incorporation of certain sections of the staff's FAQ document on revenue recognition into Topic 13. The Company does not expect the adoption of SAB 104 to have a material effect on the Company's financial statements.

In December 2003, FASB Interpretation No. 46R ("FIN 46R"), "*Consolidation of Variable Interest Entities—an interpretation of ARB 51*" was issued. This Interpretation of Accounting Research Bulletin No. 51, "*Consolidated Financial Statements",* which replaces FIN 46, "*Consolidation of Variable Interest Entities",* addresses consolidation by business enterprises of variable interest entities. Application of this Interpretation is required in financial statements of public entities that have interests in variable interest entities or potential variable interest entities commonly referred to as special-purpose entities for periods ending after December 15, 2003. The Company does note expect the adoption of FIN 46R to have a material effect on the Company's financial statements

Reclassifications

Certain reclassifications have been made to the 2002 consolidated financial statements to conform to the 2003 presentation.

3. MARKETABLE SECURITIES

The following tables summarize investments:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
December 31, 2003				
U.S. government securities	$ 69,510,015	$ 106,666	$(44,258)	$ 69,572,423
	$ 69,510,015	$ 106,666	$(44,258)	$ 69,572,423

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
December 31, 2002				
U.S. government securities	$132,892,025	$1,052,009	$ —	$133,944,034
	$132,892,025	$1,052,009	$ —	$133,944,034

As of December 31, 2003 and 2002, the approximate fair values of marketable securities by maturity date are as follows:

	2003	2002
Less than one year	$46,174,423	$113,546,928
One to five years	23,398,000	20,397,106
	$69,572,423	$133,944,034

Securities are carried at fair value with the unrealized gains/losses reported as a separate component of stockholders' equity. Proceeds from the sale of securities in 2003, 2002, and 2001 totaled $14,748,456, $1,028,675, and $15,546,432 respectively. The cost was determined using the specific identification method and the resulting realized gains were $11,458, $23,759, and $113,470 respectively. The unrealized gain from marketable securities was $62,408, $1,052,009 and $2,092,949 at December 31, 2003, 2002, and 2001 respectively. At December 31, 2003, the Company had five callable agency securities with a fair market value totaling approximately $23.4 million. Additionally, twelve investments approximating $71.2 million were called at par in 2003. These securities generate a higher relative rate of interest for the Company, in return for the issuer's right to call, at par value, the security before its maturity date.

As of December 31, 2003, none of the Company's unrealized losses had been in a continuous loss position for a period of 12 months or more

4. INVENTORIES

Inventories are as follows:

	December 31,	
	2003	2002
Raw materials	$1,556,435	$1,542,813
Work in process	722,607	2,253,458
Finished goods	240,678	288,560
	$2,519,720	$4,084,831

The above inventory amounts are shown net of reserves for obsolescence and shrinkage of $333,748 and $156,708 at December 31, 2003 and 2002, respectively.

5. FIXED ASSETS

	December 31,	
	2003	2002
Land	$ 2,248,971	$ 2,243,586
Buildings	10,568,016	10,478,611
Machinery and equipment	3,450,958	2,493,214
Leasehold improvements	368,225	368,225
Assets under capital lease	4,463,501	—
Office furniture, fixtures and equipment	3,380,623	2,668,705
Rental equipment	353,268	—
Construction in process	387,536	296,842
	25,221,098	18,549,183
Less: accumulated depreciation	(3,494,150)	(1,996,001)
	$21,726,948	$16,553,182

Depreciation expense was $1,548,871, $961,276, and $539,323 for the years ended December 31 2003, 2002 and 2001, respectively. Amortization of assets under capital lease and accumulated amortization for the year ended December 31, 2003 was $7,650. The current carrying value of the rental equipment is $302,583.

6. ACCRUED EXPENSES

Accrued expenses consist of the following:

	December 31,	
	2003	2002
Accrued merger consideration	$2,854,582	$ —
Accrued warranty	326,290	85,935
Accrued purchases	473,755	188,006
Other accruals	475,820	403,243
	$4,130,447	$677,184

The accrued merger consideration balance as of December 31, 2003 represents the amount required to be funded to an escrow account, as described in the restricted cash policy note. The escrow account was funded in January 2004.

7. DEFERRED COSTS AND REVENUE

Product Revenue

In 1999, the Company began delivering HOGEN 40 series hydrogen generators under commercial agreements. Revenue and costs on such delivered units were deferred until the expiration of the product warranty period. In the fourth quarter of 2001, the Company determined that it had adequate product warranty information and experience to begin recognizing product revenue related to sales of HOGEN 40 units upon delivery to the customer. As a result, the Company recognized previously deferred revenue of $754,000.

In the fourth quarter of 2002, the Company discovered performance issues relating to the operation of cell stacks and associated sensors in its HOGEN 40 series units. The Company's investigation of these issues revealed the presence of previously unknown pinholes in cell membranes in the field that resulted in hydrogen leakage and cell failure. As a result the Company determined that recognizing revenue on delivery of its HOGEN 40 series units was no longer appropriate because of the significant uncertainty surrounding the reliability of the existing design of the PEM electrolyzer ("cell stack") within its HOGEN 40 series generators. The Company has made modifications to the cell stack design to improve its performance and will defer product revenue until either the expiration of the warranty period or the Company determines it has compiled sufficient warranty history to estimate the warranty costs. As such, product revenue from HOGEN 40 series deliveries made from the fourth quarter of 2002 onward has been deferred until the expiration of the product warranty period.

In the fourth quarter of 2003, the Company determined that it had adequate product warranty information and experience to begin recognizing product revenue related to sales of its laboratory hydrogen generators upon shipment. As a result the Company recognized previously deferred revenue of $378,000.

The Company will continue to defer revenue on shipments of its HOGEN 380 and H Series hydrogen products until such units are past the product warranty period or until Proton has adequate warranty history. The Company had deferred product revenue of $2.9 million and $2.7 million as of December 31, 2003 and 2002 respectively. The Company had deferred product costs of $2.4 million and $1.6 million as of December 31, 2003 and 2002 respectively.

Contract Revenue

The Company principally generates contract revenue from commercial contracts as well as customer-sponsored research and development contracts. For projects which do not require the Company to meet specific delivery and acceptance obligations and whose duration is expected to be greater than 3 months, the Company recognizes revenue utilizing the percentage-of-completion method, which is based on the relationship of costs incurred to total estimated contract costs. For all other contracts, the Company recognizes revenue under the completed contract method. Adjustments to cost estimates are made periodically and losses expected to be incurred on contracts in progress are charged to operations in the period such losses are determined. The aggregate of costs incurred and income recognized on uncompleted contracts in excess of related billings as well as deferred costs are shown as current assets. The aggregate of billings on uncompleted contracts in excess of related costs incurred and income recognized as well as deferred revenue are shown as current liabilities. At December 31, 2003, deferred revenue related to contracts being accounted for under the completed contract method was $642,000. At December 31, 2003, deferred costs related to contracts being accounted for under the completed contract method was $889,000.

The information on costs and billings on contracts in progress accounted for under the percentage-of-completion is as follows:

	December 31, 2003
Costs incurred and estimated earnings on contracts in progress	$13,340,014
Less: billings to date	13,077,265
Costs and earnings in excess of billings, net	$ 262,749

	December 31, 2003
Costs in excess of billings on contracts in progress	$ 421,355
Billings in excess of costs on contracts in progress	(158,606)
Costs and earnings in excess of billings, net	$ 262,749

8. ACQUISITION

On December 10, 2003, Distributed Energy acquired Northern in exchange for 0.68 of a share of Distributed Energy common stock for each outstanding share of Northern's common stock, an amount of cash ranging from $3.74 to $5.84 cash per share for each outstanding share of Northern's common or preferred stock based on the respective elections made by the stockholders, options to purchase 2.01 shares of Distributed Energy common stock for each Northern common stock option outstanding, and warrants to purchase 0.51 shares of Distributed Energy common stock per outstanding share of Northern common and preferred stock and per share of outstanding stock subject to options (except those series D preferred shareholders that elected cash consideration only). These financial statements give effect to the mergers using the purchase method of accounting, a purchase price of Distributed Energy common stock of $2.79, and based upon the:

- election of 670,000 Northern series D preferred stockholders to receive all cash
- election of 1,310,000 Northern series D preferred stockholders to receive cash and warrants; and
- election by 20,000 Northern series D preferred stockholders to receive consideration commensurate with that received by common stockholders.

This transaction resulted in the issuance of approximately 1.4 million shares of Distributed Energy common stock, representing approximately 4% of the outstanding common stock of Distributed Energy after the completion of the acquisition. The merger is a tax-free merger and has been accounted for as a purchase business combination.

The purchase price was allocated to the estimated fair value of the Northern assets acquired and liabilities assumed based on the Northern balance sheet at December 10, 2003.

Under the merger agreement, holders of Northern common stock and preferred stock received aggregate consideration of approximately $19.0 million in cash and $3.9 million in Distributed Energy common stock. In addition, Northern's common and preferred stockholders and optionholders received warrants to purchase an aggregate of approximately 2.1 million shares of Distributed Energy common stock and Northern's optionholders received options to purchase an aggregate of 1.6 million shares of Distributed Energy common stock. In addition each outstanding share of Proton Energy Systems, Inc. ("Proton") was exchanged for a share of Distributed Energy common stock.

The following table sets forth the calculation of the purchase price, including direct transaction costs:

Fair value of common stock	$ 3,917,171
Fair value of options	4,308,063
Fair value of warrants	3,751,878
Cash	19,030,588
Transaction costs	1,264,215
	$32,271,915

Under the purchase method of accounting, the total purchase price was allocated to Northern's net tangible and intangible assets based on their fair value as of December 10, 2003. The purchase price allocation at December 10, 2003 was as follows:

Cash acquired	$ 1,632,638
Property and equipment	5,001,165
Accounts receivable, net	2,549,115
Deferred costs	854,511
Restricted cash	483,620
Other assets	301,242
Amortizable and unamortizable intangible assets acquired:	
Completed technologies	2,780,000
Contract backlog	1,370,000
Northern trade name	1,450,000
Non-compete agreements	70,000
Goodwill	24,191,187
Total assets acquired	40,683,478
Accounts payable	(4,101,202)
Accrued expenses	(2,228,315)
Deferred revenue	(485,463)
Debt	(2,717,319)
Other liabilities	(1,159,268)
Deferred stock-based compensation	2,280,004
Net assets acquired	$32,271,915

The amortizable intangible assets consisting of completed technologies, contract backlog, and non-compete agreements have useful lives not exceeding seven years. Due to an assumed indefinite life, the $1,450,000 acquired intangible asset Northern trade name will not be amortized and will be tested for impairment at least annually. The weighted average life of the amortizable intangible assets acquired was approximately 57 months at December 10, 2003.

Goodwill represents the excess of the purchase price over the fair value of the net tangible and intangible assets acquired less liabilities assumed. In accordance with current accounting standards, the goodwill is not being amortized and will be tested for impairment as required by SFAS No. 142. Goodwill and other identifiable intangible assets are not deductible for tax purposes. A deferred tax liability amounting to $1,730,764 has been established for the tax effects of the temporary differences resulting from the purchase price allocation. This deferred tax liability has been offset by the recognition of deferred tax assets for the tax effects of the carry forward losses of Northern. As a result, these deferred tax balances had no impact on goodwill.

The completed technologies intangible asset set forth above, all valued utilizing the Income Approach—Avoided Cost Method (the value of the Completed Technology is the estimated after-tax cost that would be incurred in the construction of new technology assuming an effective tax rate of 40%), consists of the following:

- *NW100 Technology*: Northern developed the 100kW direct drive turbine in conjunction with NASA, the National Science Foundation and the Department of Energy to serve the needs of remote and isolated distributed generation systems located in extreme environments. The technology has an estimated remaining useful life of seven years.
- *Software Tools*: Northern has developed a series of software tools for its own internal use. These software tools aid in the development and delivery of many of Northern's products and services. Management estimated the tools have a remaining useful life of three years; this estimate did not include possible future enhancements.
- *Fleet Monitoring Software*: Northern's software system provides fleet level monitoring, dispatch, and asset aggregation functions that are needed to support a population of on-site distributed generation systems in the field. In addition, the software also incorporates a local human-machine interface, or HMI, module that obviates the need to purchase commercial HMI packages to provide that part of a distributed generation system. The technology has an estimated remaining useful life of two years.
- *Power Electronics*: Northern has developed advanced power electronics equipment capable of networking distributed generation equipment together into high reliability local power networks. The estimated remaining useful life of the power electronics technology is seven years.

Contract backlog: Northern's contract backlog consists of contracts for integration services related to Northern's Industrial Infrastructure, Distributed Generation, Renewable Energy, and Energy Technology Laboratory markets. The Income Approach—Discounted Cash Flow Method—was used to value Contract Backlog. A 14% discount rate was utilized, based on Northern's weighted average cost of capital reduced 4% due to the assumption of the asset being less risky due to its contractual nature. The estimated average remaining economic life of the Contact Backlog is one year.

Northern Trade Name: Trade names are considered to be important intangibles associated with the sales appeal and marketing of certain products and services. The Income Approach—Relief from Royalty Method—was used to value the Trade Name. The fair value of the Trade Name is represented by the present value of the stream of future estimated after-tax royalty payments, discounted at an 18% risk adjusted rate of return. Trade Name is assumed to have an indefinite life, based on management's intention to continue using the Northern name for the foreseeable future.

Non-Compete/Non-Solicit Agreements: Messrs. Clint Coleman, Dan Reicher, and Jonathan Lynch have entered into both Non-Compete and Non-Solicit Agreements (the "Agreement") with Proton. The fair value of each individuals Agreement was valued utilizing the Lost Profits Method. An 18% discount rate, based on Northern's weighted average cost of capital, was utilized in calculating the value of each Agreement. The estimated remaining useful life of each Agreement is five years.

The property and equipment acquired was valued utilizing the Cost Approach. The Income Approach was not used because an income stream could not be attributed to individual assets. The Cost approach was relied upon in order to arrive at Replacement Cost New ("RCN") for the property and equipment. The RCN was estimated for the personal property assets by indexing the original costs based on the acquisition date. The result of this analysis was an aggregate increase in the property and equipment acquired of approximately $224,000 to reflect its then current fair market value.

The fair value of the acquired contracts was determined based on the estimated selling price, reduced by the estimated costs to complete and an allowance for normal profit on those costs to complete. Accordingly, an increase of approximately $314,000 was added to the deferred costs acquired.

9. PROFORMA INFORMATION (UNAUDITED)

The results of operations of the acquired business have been included in the financial statements of the Company since the date of acquisition. The following unaudited pro forma information presents a summary of the results of operations of the Company assuming the acquisition of Northern occurred on January 1, 2003 and January 1, 2002:

	Years Ended December 31,	
	2003	2002
Revenues		
Proton	$ 3,313,923	$ 4,714,046
Northern	23,405,058	6,921,462
Other	(49,311)	(39,482)
Total Revenues	$ 26,669,670	$ 11,596,026
Net loss	$(27,706,072)	$(23,977,750)
Net loss per share basic and diluted	$ (0.79)	$ (0.69)

The unaudited pro forma results of operations are not necessarily indicative of the actual results that would have occurred had the transaction actually taken place at the beginning of these periods.

10. GOODWILL AND INTANGIBLE ASSETS

Goodwill and identifiable intangible assets recorded on the balance sheet of Northern, the reportable segment to whom all goodwill and intangibles of the Company are assigned, as of December 31, 2003 are comprised of the following:

	Gross Amount	Accumulated Amortization
Amortizable intangible assets		
NW Wind Technology	$ 2,270,000	$ (27,024)
Tools Technology	70,000	(1,944)
Fleet Monitoring Software	150,000	(6,250)
Power Electronics	290,000	(3,452)
Contract Backlog	1,370,000	(114,167)
Non-Compete Agreements	70,000	(1,167)
	$ 4,220,000	$(154,004)
Unamortizable intangible assets		
Northern Trade Name	$ 1,450,000	$ —
Unamortizable goodwill	$24,191,187	$ —

Amortization of intangible assets for the year ended December 31, 2003 was $154,004. The expected aggregate amortization expense for each of the next five years is as follows:

2004	$1,733,881
2005	471,798
2006	401,103
2007	379,714
2008	378,548
	$3,365,044

11. DEBT

In December 2001, Technology Drive LLC, a limited liability company, wholly owned by Proton, entered into a $6,975,000 loan agreement with a major financial institution, in connection with the construction of Proton's new facility in Wallingford, Connecticut. Under the terms of the loan, the business assets of Technology Drive LLC, including the land and building, are subject to lien. The loan agreement was structured as a one-year construction loan with monthly payments of interest only until December 2002 at which time the loan converted to a seven-year term note. The term note amortizes based upon a fifteen-year schedule with a final lump sum payment due at the maturity date of December 31, 2009. The note is guaranteed by Proton Energy Systems, Inc., the managing member of Technology Drive LLC and bears interest at the one month LIBOR plus 2.375% (3.495% at December 31, 2003).

At December 31, 2003, $6,440,632 is outstanding under the note. The Company is required to comply with certain covenants including the maintenance of adequate insurance coverage and a liquidity covenant requiring the Company to maintain cash and marketable securities of not less than $20 million. The loan contains certain subjective acceleration clauses, which upon the occurrence of an adverse change in the Company's financial position may cause amounts due under each of the agreements to become immediately due and payable. The Company has no indication that it is in default of any such clauses and therefore has classified its debt based on the dates regular payments are due. In connection with the loan facility, the Company incurred approximately $216,000 of loan origination costs. These costs are being amortized over the term of the loan. Amortization expense for each of the years ended December 31, 2003 and 2002 was approximately $27,000 and $26,000, respectively.

Future maturities under these debt facilities at December 31, 2003 are as follows:

2004	350,400
2005	366,600
2006	382,800
2007	400,200
2008	418,200
2009 and thereafter	4,522,432
	6,440,632

In 2002, Northern began construction of a new facility. In March 2003, Northern entered into a financing agreement with the Vermont Economic Development Authority (VEDA) regarding the purchase, construction, sale, and lease of a new facility. In March 2003, a condominium association, Northern Power Systems Commercial Condominium Association, Inc. (NPS Condo Association), was formed for the purpose of managing the land, building, and improvements related to the new facility. Northern owns 50% of the NPS Condo

Association and has the ability to exercise significant influence over the NPS Condo Association. Northern transferred certain property and development rights under NPS Condo Association to the Central Vermont Economic Development Corporation (CVEDC). In consideration, CVEDC secured a $2,790,000 loan from VEDA to complete the facility and lease back such facility to Northern. The terms of the lease include an initial term of ten years, lease payments equal to the debt payments plus an administrative fee, and a purchase option for Northern equal to the outstanding loan amount. Northern has guaranteed the CVEDC loan, is responsible for all cost overruns in relation to construction of the new facility, is required to maintain certain levels of insurance over the facility, is required to maintain $150,000 of restricted cash for performance under the agreements and indemnifies CVEDC from liability or lawsuit relating to the facility. The agreement also contains a material adverse change clause. At December 31, 2003, $2,717,319 is outstanding under the note. The asset and related obligation is treated as a capital lease.

Total payments under the capital lease are as follows:

2004	169,538
2005	184,950
2006	184,950
2007	184,950
2008	184,950
2009 and thereafter	2,517,392
total payments	3,426,730
less: interest portion	(709,411)
	2,717,319

12. CAPITAL STRUCTURE

Preferred Stock

The Company has a class of 5,000,000 authorized but undesignated shares of preferred stock, par value $.01. No preferred shares have been issued.

Common Stock

The Company has authorized 65,000,000 shares of common stock, par value $.01 per share.

In February 1998 in connection with a customer-sponsored research and development contract, Proton issued a warrant to purchase 50,000 shares of its common stock at a purchase price of $1.10 per share. The fair value of the warrant was estimated using the Black-Scholes valuation method. The value was not considered significant. At December 31, 2003, the warrant was fully exercisable and expires in February 2008.

In December 2003 in connection with the Northern acquisition, the Company issued 1,404,004 shares of common stock to the shareholders of Northern. In addition, warrants to purchase 2,145,000 shares of the Company's common stock ("acquisition warrants") at a purchase price of $2.80 per share were also issued to Northern shareholders and option holders. The fair value of the acquisition warrants was estimated using the Black-Scholes valuation method. The fair value was determined to be approximately $3,752,000, and was included in determining the calculation of the purchase price. The acquisition warrants are immediately exercisable. The acquisition warrants expire December 10, 2006.

The acquisition warrants issued to Northern optionholders are subject to the Escrow Agreement issued in connection with the Northern acquisition. Two-thirds of these acquisition warrants are available for release from Escrow December 10, 2004. The remaining one-third is available for release from Escrow on December 10, 2005.

13. EMPLOYEE BENEFIT AND STOCK OPTION PLANS

Stock Option Plan

The Company has four stock option plans: the Proton 1996 Stock Option Plan (the "1996 Plan"), the Northern 1998 Stock Option Plan (the "1998 Plan"), the Proton 2000 Stock Option Plan (the "2000 Plan") and the 2003 Stock Incentive Plan (the "2003 Plan") (collectively the "Plans"). The Company has reserved a total of 7,700,000 shares of common stock for issuance under the 1996, 1998, 2000 and 2003 Plans. Together the Plans provide for the grants of non-qualified and incentive stock options, restricted stock awards and other stock-based awards to its employees, officers, directors, consultants and advisors. As determined by the Board of Directors, options are generally granted at the fair market value of the common stock at the time of grant. However, the Board of Directors has determined that the exercise price for each incentive stock option shall not be less than the fair market value of the common stock at the time the incentive stock option is granted. Options generally vest ratably over four to five years and expire ten years from the date of grant.

A summary of stock option activity for the years ended December 31, 2003, 2002 and 2001 under the Plans is as follows:

	Shares	Weighted Average Exercise Price
Outstanding at December 31, 2000 (424,508 exercisable)	2,763,010	$7.85
Granted	595,579	7.73
Exercised	(126,623)	0.21
Cancelled or forfeited	(63,105)	5.53
Outstanding at December 31, 2001 (829,801 exercisable)	3,168,861	8.18
Granted	1,133,989	4.66
Exercised	(190,018)	0.25
Cancelled or forfeited	(171,307)	9.64
Outstanding at December 31, 2002 (1,409,010 exercisable)	3,941,525	7.49
Granted	2,142,651	0.88
Exercised	(468,324)	0.26
Cancelled or forfeited	(518,480)	8.97
Outstanding at December 31, 2003 (2,371,376 exercisable)	5,097,372	5.22

In connection with the grant of certain stock options to employees during 2000 and 1999, the Company recorded unearned stock compensation representing the difference between the deemed fair market value of the common stock on the date of grant and the exercise price. Compensation related to options that vest over time was recorded as unearned compensation, a component of stockholders' equity, and is being amortized over the vesting periods of the related options. During the years ended December 31, 2003, 2002 and 2001, the Company recorded non-cash compensation expense relating to these options totaling $400,255, $684,057, and $716,319, respectively. At December 31, 2003 and 2002, the unearned compensation balance is $138,838 and $653,737 respectively.

In connection with the grant of certain stock options to Northern optionholders as part of the merger consideration on December 10, 2003 (the "merger options"), the Company recorded unearned stock

compensation representing the difference between the deemed fair market value of the common stock on the date of grant and the exercise price. Compensation related to merger options that vest over time was recorded as unearned compensation, a component of stockholders' equity, and is being amortized over the vesting periods of the related merger options. During the year ended December 31, 2003 the Company recorded non-cash compensation expense relating to these merger options totaling $142,613. At December 31, 2003 the unearned compensation balance related to the merger options is $2,137,391.

The following table summarizes additional information about stock options outstanding at December 31, 2003:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding at December 31, 2003	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Number Exercisable at December 31, 2003	Weighted Average Exercise Price
$ 0.05 - $0.07	732,728	5.51	$ 0.07	528,368	$ 0.07
0.15 - 0.35	208,159	5.08	0.28	207,205	0.28
0.37 - 0.50	906,370	8.11	0.37	166,908	0.37
1.89 - 3.00	862,647	9.40	2.88	235,376	2.73
3.01 - 4.80	72,850	8.58	3.67	58,750	3.68
5.00 - 6.00	780,100	7.60	5.44	396,450	5.66
6.05 - 7.78	382,707	7.97	7.37	190,983	7.32
8.19 - 10.00	129,613	7.67	8.93	64,704	9.05
10.22 - 12.00	326,198	6.98	10.73	164,610	10.73
12.06 - 16.88	40,500	7.10	13.87	26,000	14.14
17.00 - 24.13	655,500	6.75	17.01	332,022	17.01
	5,097,372	7.48	$ 5.22	2,371,376	$ 5.49

The following table summarizes additional information about stock options granted during 2003:

	Number of Options Granted	Weighted Average Exercise Price	Weighted Average Fair Value at Grant Date
Options granted with an exercise price:			
Equal to fair market value	528,200	$2.85	$2.18
Less than Fair market value	1,614,451	$0.23	$2.67

The fair value of each option grant is estimated on the date of grant using the minimum value option-pricing model through December 31, 1999, and the Black Scholes option-pricing model from January 1, 2000 through December 31, 2003, with the following assumptions:

	2003	2002	2001
Risk free interest rate	2.58%-3.27%	2.94%-4.74%	4.57%-5.39%
Expected dividend yield	None	None	None
Expected life of option	5 years	5 years	5 years
Expected volatility	100%	100%	100%

The weighted average grant date fair value of options granted during 2003, 2002 and 2001 was $2.55, $3.55, and $5.93, respectively.

SFAS No. 123 requires the disclosure of pro forma net income and earnings per share had the Company adopted the fair value method as disclosed in Note 2. Under SFAS No. 123, the fair value of stock-based awards to employees is calculated through the use of option-pricing models. These models require subjective assumptions, including future stock price volatility and expected time to exercise, which greatly affect the calculated value.

During the year ended December 31, 2001 the Company granted fully vested, non-statutory stock options with a ten-year term, to non-employees to purchase 3,000 shares of common stock. The Company recognized compensation expense based on the fair value of these options of $22,050 for the year ended December 31, 2001. No options were granted to non-employees in 2002. During the year ended December 31, 2003 the Company granted fully vested, non-qualified stock options with a ten-year term, to non-employees to purchase 34,500 shares of common stock. The Company recognized compensation expense based on the fair value of these options of $78,167 for the year ended December 31, 2003.

In September 2000, the Company granted non-statutory stock options to a non-employee to purchase 15,000 shares that vest over four years and expire at the end of ten years. Accounting for these options require that they be revalued on each subsequent reporting date until performance is complete or vesting occurs with a cumulative catch-up adjustment recognized for any changes in fair value. Compensation related to these options was recorded as unearned compensation, a component of stockholders' deficit, and is being amortized over the vesting periods of the related options. As of December 31, 2003, 11,250 options have vested and have an aggregate fair value of $27,360 as determined on the respective vesting dates. The remaining unvested options at December 31, 2003 and 2002 have an estimated fair value of $7,463 and $16,800 or $1.99 and $2.24 per share, respectively. The Company's results of operations for the year ended December 31, 2003 included a non-cash charge of $2,195 for the amortization of the fair value of these options. The Company's results of operations for the year ended December 31, 2002 included a non-cash credit of $25,645 for the amortization of the decrease in the fair value of these options. The Company's results of operations for the year ended December 31, 2001 include a non-cash charge of $37,961 for the amortization of the fair value of these options. At December 31, 2003 and 2002, the unearned compensation balance is $1,631 and $6,429, respectively. The Company's future results of operations could be materially impacted by a change in valuation of these unvested stock options as a result of future increases or decreases in the price of the Company's common stock.

The fair value of each non-employee option grant is estimated using the Black Scholes option-pricing model with the following assumptions:

	2003	2002	2001
Risk free interest rate	2.84%-4.53%	3.31%-5.26%	4.50%-5.46%
Expected dividend yield	None	None	None
Expected life of option	7-10 years	7-10 years	5-10 years
Expected volatility	100%	100%	100%

2000 and 2003 Employee Stock Purchase Plan

In June 2000, Proton adopted the 2000 Employee Stock Purchase Plan. A total of 250,000 shares of common stock were reserved for issuance under this plan. Eligible employees could purchase common stock pursuant to payroll deductions at a price equal to 85% of the lower of the fair market value of the common stock at the beginning or end of each three-month offering period. Employee contributions are limited to 10% of an employee's eligible compensation not to exceed amounts allowed by the Internal Revenue Code. As of December 31, 2003, 2002 and 2001, 33,436, 32,571, and 13,829 shares of common stock were issued for proceeds of $70,051, $74,509, and $67,535 respectively. The Board of Directors of the Company has determined that no additional shares will be issued under this Plan. As of December 31, 2003, 168,214 shares are available for future issuance.

The Company has also established its 2003 Employee Stock Purchase Plan. A total of 250,000 shares of common stock are reserved for issuance under this plan. Eligible employees can purchase common stock pursuant to payroll deductions at a price equal to 85% of the lower of the fair market value of the common stock at the beginning or end of each three-month offering period. Employee contributions are limited to 10% of an employee's eligible compensation not to exceed amounts allowed by the Internal Revenue Code. No shares have been issued under this Plan as of December 31, 2003.

401(k) Plan

In 1997, the Company established a 401(k) plan covering substantially all of its employees, subject to certain eligibility requirements. Participants have the option of contributing up to 15% of their annual compensation. In January 2002, the Company adopted a 50% match of employee contributions up to 6% of compensation. Employer matching contributions for the years ended December 31, 2003 and 2002 approximated $183,345 and $161,000, respectively.

14. COMMITMENTS AND CONTINGENCIES

Contracts

In November 1999, Proton entered into an agreement with Matheson Tri-Gas, Inc. ("Matheson") to develop, market and distribute hydrogen generators to be used solely in laboratory applications. This agreement granted the distributor worldwide exclusivity to the commercial sale of this product during the fifteen-year term of the contract as long as the distributor met minimum purchases, as defined in the agreement. In January 2003, the exclusive distribution agreement with Matheson Tri-Gas, Inc., was jointly terminated. Under the terms of the settlement agreement Proton agreed to continue to support units under warranty, provide spare parts for five years, sell an additional 55 laboratory hydrogen generators, and agreed not to sell or market our own laboratory hydrogen generators under Proton's or any other brand name before June 30, 2003.

In 2001, Proton entered into a 10-year agreement with STM Power, Inc. ("STM") for the exclusive supply of high-pressure hydrogen replenishment systems for Stirling Cycle Engines. Under an initial purchase order relating to this agreement, STM has agreed to provide $395,000 for the product development and delivery of prototype hydrogen replenishment systems. In 2002, Proton received purchase orders totaling approximately $550,000 for additional product development and delivery of 57 high-pressure hydrogen generators. The Company accounts for the STM contract in accordance with SOP 81-1, "Accounting for Performance of Construction-Type and Certain Production-Type Contracts". In the fourth quarter of 2003, the Company recognized previously deferred revenue of $958,000.

Also in 2001, Proton entered into an agreement with the Connecticut Clean Energy Fund ("CCEF"). The agreement provides the Company with financial assistance for up to $1.5 million to accelerate commercial deployment of the UNIGEN product. The Company is required to repay CCEF 110% of the amounts advanced by them under the agreement beginning at such time as revenues from UNIGEN products reach $25 million annually. However, prior to the achievement of milestones described in this agreement, these funds were subject to repayment provisions based upon the occurrence of certain events. These events include a failure to maintain a Connecticut presence, the purchase of a controlling interest in the Company by a third party, the sale of substantially all of the Company's assets, the consolidation or merger of the Company with a third party, or the granting of the exclusive license to a third party to manufacture or use the UNIGEN product line. Because of these repayment provisions, the Company records funds received as liabilities until it achieves the contract milestones. At December 31, 2001, $200,000 had been received and was recorded in customer advances. During the first half of 2002 an additional $400,000 had been received. During 2002, the Company achieved all of the

contract milestones and recognized the related $600,000 as an offset against costs and expenses. In December 2002, the Company was approved for funding of up to $900,000 under Phase II of the agreement. As of December 31, 2003, the Company had received $900,000 in funding under this phase of the agreement. During 2003, the Company achieved certain milestones and recognized approximately $675,000 as an offset against costs and expenses, with the remaining $225,000 recorded in customer advances.

Warranty

In October 2002, Proton learned of problems with sensor modules in its HOGEN 40 series units at customer locations that might have been affected by moisture blockage, thereby impairing the sensor's ability to detect the presence of hydrogen in the oxygen gas stream. Further investigation of these units revealed the presence of pinholes in the cell membranes, resulting in hydrogen leakage and cell failure. To address these problems, the Company contacted all of its HOGEN 40 series customers and arranged appropriate sensor testing and modifications. Since the initial recognition of this issue, the Company has replaced all but one last HOGEN 40 series sensor and cell stack component in the field, and has completed the development and implementation of design changes to prevent these and similar problems in the future. For the year ended December 31, 2002 the Company recorded $2,462,000 for these service costs. Total expenditures related to this program amounted to $1,878,000 and $369,000 for the year ended December 31, 2003 and 2002, respectively. Additionally, in 2003 adjustments to the provision amounted to $197,000. As of December 31, 2003 $23,000 remains accrued for these costs. The liability for such service costs reflects management's estimate, as of the date of this report, of the remaining cost of the program. The actual amount of such costs could be less than this accrual but they could also materially exceed the amount accrued.

Retainage Provisions

Balances billed but not paid by the customer pursuant to retainage provisions in customer contracts are due either upon completion of the contracts and acceptance by the customer or expiration of the warranty period. At December 31, 2003, the accounts receivable balance includes approximately $58,000 of retainage balances.

State Income, Sales, Property and Franchise Tax Accruals

The Company has recorded, within current liabilities, a tax accrual of approximately $890,000 and $68,000 for certain state income and sales tax contingencies for which there may be exposure at December 31, 2003 and 2002, respectively. In addition, property and franchise tax accruals of approximately $154,000 and $113,000 are recorded within current liabilities at December 31, 2003 and 2002, respectively. The determination of the amount of the accrual requires significant judgment. The assumptions used in determining the estimate of the accrual is subject to change and the actual amount could be greater or less than the accrued amount.

Legal Proceedings

Between July 3, 2001 and August 29, 2001, four purported class action lawsuits were filed in the United States District Court for the Southern District of New York against Proton and several of its officers and directors as well as against the underwriters who handled the September 28, 2000 initial public offering ("IPO") of common stock. All of the complaints were filed allegedly on behalf of persons who purchased the Company's common stock from September 28, 2000 through and including December 6, 2000. The complaints are similar, and allege that Proton's IPO registration statement and final prospectus contained material misrepresentations and/or omissions related, in part, to excessive and undisclosed commissions allegedly received by the underwriters from investors to whom the underwriters allegedly allocated shares of the IPO. On April 19, 2002, a single Consolidated Amended Complaint was filed, reiterating in one pleading the allegations contained in the

previously filed separate actions, including the alleged Class Period of September 28, 2000 through and including December 6, 2000. On July 15, 2002 Proton joined in an omnibus motion to dismiss the lawsuits filed by all issuer defendants named in similar actions which challenges the legal sufficiency of the plaintiffs' claims, including those in the consolidated amended complaint. Plaintiffs opposed the motion and the Court heard oral argument on the motion in November 2002. On February 19, 2003, the Court issued an Opinion and Order, granting in part and denying in part the motion to dismiss as to Proton. In addition, in August 2002, the plaintiffs agreed to dismiss without prejudice all of the individual defendants from the consolidated complaint. An order to that effect was entered by the Court in October 2002.

A special Litigation Committee of the Board of Directors has authorized the Company to negotiate a settlement of the pending claims substantially consistent with a Memorandum of Understanding, which was negotiated among class plaintiffs, all issuer defendants and their insurers. Any such settlement would be subject to approval by the Court. The Company believes it has meritorious defenses to the claims made in the complaints and, if the settlement is not finalized and approved, the Company intends to contest the lawsuits vigorously. However, there can be no assurances that we will be successful, and an adverse resolution of the lawsuits could have a material adverse effect on our financial position and results of operation in the period in which the lawsuits are resolved. The Company is not presently able to reasonably estimate potential losses, if any, related to the lawsuits. In addition, the costs to us of defending any litigation or other proceeding, even if resolved in our favor, could be substantial

Operating Leases

At December 31, 2003, the Company was committed under operating leases for its facilities extending into 2005. The Company also rents certain office equipment under operating leases.

Rent expense under the non-cancelable operating leases was approximately $243,000, $320,000, and $363,000 for the years ended December 31, 2003, 2002 and 2001, respectively.

Minimum lease payments under the noncancelable leases at December 31, 2003 are as follows:

2004	$220,263
2005	104,150
2006	43,996
2007	2,118
2008 and thereafter	—
Total	$370,527

15. INCOME TAXES

The Company's gross deferred tax assets and liabilities were as follows:

	December 31,	
	2003	2002
Gross deferred tax assets:		
Net operating loss carryforwards	$ 21,004,000	$ 9,256,000
Deferred compensation	1,081,000	895,000
Research and development tax credits	1,499,000	963,000
Deferred revenue	1,385,000	1,053,000
Inventory reserves	170,000	137,000
Warranty reserves	137,000	911,000
Bad debt reserves	63,000	—
Accrued expenses and other	157,000	62,000
	25,496,000	13,277,000
Gross deferred tax liabilities:		
Amortizable intangibles at acquisition	1,584,000	—
Fixed asset basis step-up at acquisition	87,000	—
Depreciation	445,000	182,000
Unrealized gain on marketable securities	24,000	410,000
Deferred costs	1,293,000	628,000
	3,433,000	1,220,000
Net deferred tax asset	22,063,000	12,057,000
Less: valuation allowance	(22,063,000)	(12,057,000)
	$ —	$ —

The Company's effective income tax rate differed from the Federal statutory rate as follows:

	Years Ended December 31,		
	2003	2002	2001
Federal statutory rate	-34.0%	-34.0%	-34.0%
Deferred state taxes, net of federal benefit	-5.0%	-5.0%	-5.0%
Tax credits	0.0%	0.0%	0.0%
Valuation allowance	39.0%	39.0%	39.0%
	0.0%	0.0%	0.0%

At December 31, 2003, the Company had approximately $54.1 million of federal net operating loss carryforwards that expire beginning in the year 2011 through 2023 and approximately $52.0 million of state net operating loss carryforwards that expire beginning in the year 2003 through 2023.

The amount of the net operating loss and research and development tax credit carryforwards that may be utilized annually to offset future taxable income and tax liability is limited as a result of certain ownership changes pursuant to Section 382 of the Internal Revenue Code.

16. RELATED PARTIES

In October 2001, Proton loaned $275,000 to Walter W. Schroeder, the President and Chief Executive Officer of the Company and a director. The loan has a two year term and is payable in monthly installments of $10,000 each with a final payment due at maturity. The loan, which accrued interest at the prime rate contains no penalty for early repayment. In July 2002, the loan was repaid in full.

In 2001, Proton entered into a contract with STM to develop and deliver hydrogen generators (see Note 14). Richard A. Aube, a former member of the Proton's Board of Directors, is also a former member of STM's Board of Directors.

Northern has in the past engaged Paul Koeppe, a stockholder and member of the board of directors of the Company, and formerly a member of the board of directors of Northern, as a consultant on general business strategy and intellectual property protection issues. No amounts were paid to Mr. Koeppe from the acquisition date through December 31, 2003.

17. SEGMENT FINANCIAL DATA

Management has chosen to organize its enterprise around differences in its two operating subsidiaries, Proton and Northern. Proton develops and manufactures proton exchange membrane, or PEM, electrochemical products. Northern designs, builds and installs both stand-alone and grid-connected electric power systems for industrial, commercial and government customers. For management reporting and control, the Company is divided into the operating segments as presented below. Each segment has general autonomy over its business operations.

Financial information as of and for the year ended December 31, 2003 (all amounts in 000s) is summarized below. For the years ended December 31, 2002 and 2001, Proton was the only segment and comparative information is not relevant.

	2003
Revenues:	
Proton	3,314
Northern	880
Eliminations and other	—
Consolidated	4,194

Included within Northern's revenues are sales to one international (United Kingdom) customer totaling approximately 18% of consolidated revenues. Total revenue from international customers accounted for approximately 21% of consolidated revenues. The Company believes it has no risk of foreign dependence.

	2003
Loss from operations:	
Proton	(18,338)
Northern	(723)
Eliminations and other	(10)
Consolidated	(19,071)

	2003
Interest income:	
Proton	2,533
Northern	1
Eliminations and other	1
Consolidated	2,535

	2003
Net loss:	
Proton	(16,035)
Northern	(727)
Eliminations and other	(6)
Consolidated	(16,768)

	2003
Total assets:	
Proton	102,915
Northern	40,166
Eliminations and other	386
Consolidated	143,467

All assets of the Company are located in the United States.

18. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

The following tables set forth certain unaudited quarterly statement of operations data for the eight quarters ended December 31, 2003. This data has been derived from unaudited financial statements that, in the Company's opinion, include all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of such information when read in conjunction with the Company's consolidated financial statements and related notes. The selected financial data for 2003 include the full year of Proton's operations and the period from December 11, 2003 through December 31, 2003 for Northern and Distributed Energy. The operating results for any quarter are not necessarily indicative of results for any future period.

	2003 Quarters			
	First	Second	Third	Fourth
	Amounts in 000s except for per share amounts			
Revenues	$ 173	$ 452	$ 593	$ 2,976
Costs and expenses	5,632	4,329	5,402	7,902
Loss from operations	(5,459)	(3,877)	(4,809)	(4,926)
Net loss attributable to common stockholders	(4,650)	(3,215)	(4,294)	(4,609)
Basic and diluted net loss per share attributable to common stockholders	(0.14)	(0.10)	(0.13)	(0.13)

	2002 Quarters			
	First	Second	Third	Fourth
	Amounts in 000s except for per share amounts			
Revenues	$ 938	$ 1,317	$ 1,589	$ 870
Costs and expenses	4,947	5,957	7,301	5,815
Loss from operations	(4,009)	(4,640)	(5,712)	(4,945)
Net loss attributable to common stockholders	(2,263)	(3,080)	(4,287)	(3,850)
Basic and diluted net loss per share attributable to common stockholders	(0.07)	(0.09)	(0.13)	(0.11)

Schedule II—VALUATION AND QUALIFYING ACCOUNTS

	Allowance for Doubtful Accounts	Allowance for Inventory
Year ended December 31, 2001:		
Balance at beginning of year	$ —	$100,000
Reduction of reserve	—	(66,084)
Balance at end of year	—	33,916
Year ended December 31, 2002:		
Balance at beginning of year	—	33,916
Charged to costs and expenses	—	122,792
Balance at end of year	—	156,708
Year ended December 31, 2003:		
Balance at beginning of year	—	156,708
Increase from acquisition	93,173	—
Charged to costs and expenses	70,800	177,040
Balance at end of year	$163,973	$333,748

ITEM 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

ITEM 9A. ***Controls and Procedures***

(a) Evaluation of disclosure controls and procedures. Based on their evaluation of the Company's disclosure controls and procedures (as defined in Rules 13a-14(c) and 15d-14(c) under the Securities and Exchange Act of 1934) as of December 31, 2003, the Company's chief executive officer and principal financial and accounting officer have concluded that the Company's disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and are operating in an effective manner.

(b) Changes in internal controls. There were no significant changes in the Company's internal controls or in other factors that could significantly affect those controls during the last fiscal quarter.

Part III

Certain information required by Part III is omitted from this Annual Report as we intend to file our definitive Proxy Statement for our Annual Meeting of Stockholders to be held on June 2, 2004, pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, not later than 120 days after the end of the fiscal year covered by this Report, and certain information included in the Proxy Statement is incorporated herein by reference.

ITEM 10. ***Directors of the Registrant***

(a) Executive Officers and Directors—The information in the section entitled "Executive Officers and Directors of the Registrant" in Part I hereof is incorporated herein by reference.

(b) Directors—The information in the section entitled "Directors and Nominees for Director" in the Proxy Statement is incorporated herein by reference.

The disclosure required by Item 405 of Regulation S-K is incorporated by reference to the section entitled "Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement.

ITEM 11. ***Executive Compensation***

The information in the sections entitled "Compensation of Executive Officers," "Compensation of Directors" and "Compensation Committee Interlocks and Insider Participation" in the Proxy Statement is incorporated herein by reference.

ITEM 12. ***Security Ownership of Certain Beneficial Owners and Management***

The information in the section entitled "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement is incorporated herein by reference.

ITEM 13. ***Certain Relationships and Related Transactions***

The information in the section entitled "Certain Transactions" and "Compensation Committee Interlocks and Insider Participation" in the Proxy Statement is incorporated herein by reference.

ITEM 14. ***Principal Accountant Fees and Services***

The information required by this item is incorporated by reference to the definitive Proxy Statement of the Registrant, which is required to be filed with the Commission within 120 days of December 31, 2003, in connection with the annual meeting of stockholders to be held on June 2, 2004.

Part IV

ITEM 15. ***Exhibits, Financial Statement Schedules and Reports on Form 8-K***

(a) Documents filed as part of Form 10-K

1. Financial Statements

The following documents have been included in Item 8 of this report:

- Report of PricewaterhouseCoopers LLP, Independent Auditors
- Consolidated Balance Sheets as of December 31, 2003 and 2002.
- Consolidated Statements of Operations for each of the three years ended December 31, 2003, 2002 and 2001.
- Consolidated Statements of Changes in Stockholders' Equity and Comprehensive Loss for years ended December 31, 2003, 2002 and 2001.
- Consolidated Statements of Cash Flows for years ended December 31, 2003, 2002 and 2001.
- Notes to Consolidated Financial Statements

2. Financial Statement Schedules

The following financial statement schedule of Distributed Energy has been included: Schedule II Valuation and Qualifying Accounts. All other schedules for which provision is made in the applicable accounting regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable and therefore have been omitted.

3. Exhibit Listing

Exhibit	Description
1.1(a)	Third Amended and Restated Certificate of Incorporation of the Registrant
1.2(a)	Amended and Restated By-Laws of the Registrant
4.1(a)	Specimen common stock certificate
4.2(a)	See Exhibits 3.1 and 3.2 for provisions of the Certificate of Incorporation and By-Laws of the Registrant defining the rights of holders of common stock of the Registrant
10.1(a)	2003 Stock Incentive Plan
10.2(a)	2003 Employee Stock Purchase Plan
10.3(a)	Form of warrant for the purchase of common stock of the Registrant
10.4(a)	Lease Agreement, dated March 28, 2003, between Northern Power Systems, Inc. and the Central Vermont Economic Development Corporation.
10.5(a)	Construction Loan Agreement dated as of December 7, 2001 between Technology Drive, LLC, a limited liability company, wholly owned by us of the Registrant, and Webster Bank
10.6(a)	Construction Mortgage Note dated as of December 7, 2001 between Technology Drive, LLC, a limited liability company, wholly owned by us of the Registrant, and Webster Bank
10.7(a)	Open-End Construction Mortgage Deed and Security Agreement dated as of December 7, 2001 between Technology Drive, LLC, a limited liability company, wholly owned by us of the Registrant, and Webster Bank
10.8(a)	Guaranty Agreement dated as of December 7, 2001 between the Registrant and Webster Bank.
10.9(b)	Agreement and Plan of Merger, dated as of May 22, 2003, as amended, by and among the registrant, Proton Energy Systems, Inc., Northern Power Systems, Inc., PES-1 Merger Sub, Inc., and PES-2 Merger Sub, Inc.
10.10	Escrow Agreement, dated December 10, 2003, by and among the Registrant, Paul F. Koeppe, Philip Deutch, and Webster Bank
23.1	Consent of PricewaterhouseCoopers LLP
31	Certifications pursuant to 18 U.S.C. sec. 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32	Certifications pursuant to 18 U.S.C. sec. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(a): Incorporated herein by reference to the identically numbered exhibit of the Company's registration statement on Form S-4, SEC File No. 333-108515.

(b): Incorporated herein by reference to exhibit 2.1 of the Company's registration statement on Form S-4, SEC File No. 333-108515.

Reports on Form 8-K for the quarter ended December 31, 2003

Proton Energy Systems, Inc. filed a Report on Form 8-K, on November 12, 2003, reporting a press release was issued on results of operations for its fiscal quarter ended September 30, 2003.

Proton Energy Systems, Inc. filed a Report on Form 8-K, on December 11, 2003, reporting that Proton Energy Systems, Inc. and Northern Power Systems, Inc. combined their businesses by merging with and into separate acquisition subsidiaries of Distributed Energy Systems Corp.

Distributed Energy Systems Corp. filed a Report on Form 8-K, on December 11, 2003 as amended by Form 8-K/A filed February 20, 2004, reporting that Proton Energy Systems, Inc. and Northern Power Systems, Inc. combined their businesses by merging with and into separate acquisition subsidiaries of Distributed Energy Systems Corp.

SIGNATURES

In accordance with Section 13 or 15 (d) of the Securities Exchange Act of 1934, the registrant has caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

DISTRIBUTED ENERGY SYSTEMS CORP.

/s/ WALTER W. SCHROEDER

Walter W. Schroeder, President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons, on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Capacity	Date
/s/ WALTER W. SCHROEDER	President and Director (Principal executive officer)	March 15, 2004
/s/ CLINT COLEMAN	President of Northern and Director	March 15, 2004
/s/ ROBERT J. FRIEDLAND	Senior Vice President	March 15, 2004
/s/ ROBERT W. SHAW, JR.	Chairman of the Board and Director	March 15, 2004
/s/ GERALD B. OSTROSKI	Director	March 15, 2004
/s/ JAMES H. OZANNE	Director	March 15, 2004
/s/ PHILIP R. SHARP	Director	March 15, 2004
/s/ PAUL F. KOEPPE	Director	March 15, 2004
/s/ THEODORE STERN	Director	March 15, 2004
/s/ JOHN A. GLIDDEN	Vice President of Finance (Principal financial and accounting officer)	March 15, 2004

Our team of talented and committed employees: innovating with energy, delivering shareholder value.

Distributed Energy Systems

John Glidden
Sandra Kelly
John Koduah
Michael Martino
Sherry Munro
Robert Nieszczezewski
Kathleen O'Hara
Richard Park
Erika Schramm
Walter Schroeder
Jeffrey Stull
Fenton Wilson
Lisa Wilson
Andrew Winters
Maria Zoeller

Northern Power Systems

Dennis Alberts
Bradley Allen
Trevor Atkinson
Alan Axworthy
Gregory Aylward
Chris Badger
Laurie Baird
Nils Behn
Christopher Bevington
Ernest Bilbrough
Travis Blodgett
Michael Brennan
Brian Browning
Donald Byrd
Garrett Bywaters
Erin Carroll
Robert Clampitt
Leslie Cockburn
Clint Coleman
Daniel Costin
Charles Curtis Jr.
Deborah Danforth
William Danforth
Stephen Doherty
Stephen Dollmeyer
Theodore Duchaine
Peter Edlund
Kyle Ellis
Lorraine Ford
Lewis Franco
Belvin Freeman
Geoffrey Gaida
Tracy Glogoza
John Gonet
David Goodwin
Michelle Grimm
Ivey Hardy
Reid Harte
Bradley Hodgdon
Douglas Hoffmann
Stephen Hoskins
Jon Howell
Hector Hurtado
Ronald Jacobs
Darren Jamison
Vinod John
Garth Johnson
Karl Johnson
Kenneth Jurden
Stephen Kelley
Kim Kite
Wayne Klehm
Amy Klinger
Garey Kreis
John Kueffner
Christian Lagier
Nicholas Lange
George Lawrence
John Lecompte
Nicholas Lemberg
Daniel Lenel
Edward Linton
Rodrigo Luciano
Jonathan Lynch
Douglas MacDonald
Peter Mattila
Brett Maxwell
Kenneth Mayer
Christopher McKay
Carolyn McLaughlin
James McNamara
Eve Mendelsohn
Shazreen Meor Danial
James Merriam
Peter Morin
Lawrence Mott
Jason Motyka
Gary Norton
Robert Nuner
Stanley Pace
Jeffrey Petter
Jeff Rice
Robert Rolland
Douglas Schwab
Glenn Sharpe
Timothy Shea
Donn Simpson
Bruce Sinnott
Michael Skroski
Anna Stegemoeller
James Stover
Jesse Stowell
Jodi Sutherland
Jon Sutton
Mark Tarno
Brendan Taylor
Mahfoud Tebbakh
Jan Tierson
Patrick Towbin
Michael Trunzo
Illari Vihinen
Andrew Volondin
Katherine Walsh
Alva Ware-Bevacqui
Lory Widmer
Nancy Wilson

Proton Energy Systems

Desiree Alvis
Everett Anderson
Robert Avery Jr.
Justin D. Baltrucki
Woody Beringer
Ken Blakeslee
Michael Brown
Tom Brown
Christopher Capuano
Michael Cardin
Carlos Carranza
Oscar Chow
Dave Christensen
Chau Chuong
Jennifer Chuong
William Cox
Cindy Curtis
Luke Dalton
Nina Delladonna
Daniel DeLong
Mike DelSesto
Edward Demarest
Raymond Dewley
Ken Dreier
Nancy Dumond
James Dykes
Curt Ebner
Robert Friedland
Jake Friedman
Tushar Ghuwalewala
Susan Gould
Stephen Goyette
John Griffin
Luisa Gudino
Dean Halter
Greg Hanlon
Peter Harrington
David Henderson
Lawrence Henry
Tony Hurtado
David Iacobucci
Joseph Ingram
Erik Jensen
Frank Kenney
Amjad Khan
Richard King
John Koopman
Karen Kowalczyk
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DIRECTORS AND OFFICERS

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Jonathan Lynch
Chief Technology Officer
Northern Power Systems, Inc.

John A. Glidden
Vice President, Finance
Distributed Energy Systems Corp.

Richard Park
Vice President, Human Resources
Distributed Energy Systems Corp.

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COMMON STOCK LISTING

NASDAQ National Market
Symbol: DESC

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ANNUAL MEETING

The Distributed Energy Systems Corp. Annual Meeting of Stockholders will be held at 10:00 AM on June 2, 2004, at
The Inn At Middletown
70 Main Street
Middletown, CT 06457

OTHER INFORMATION

Distributed Energy Systems Corp.'s fiscal year ends December 31st.

Presently, Distributed Energy Systems Corp. does not offer a direct stock purchase plan.

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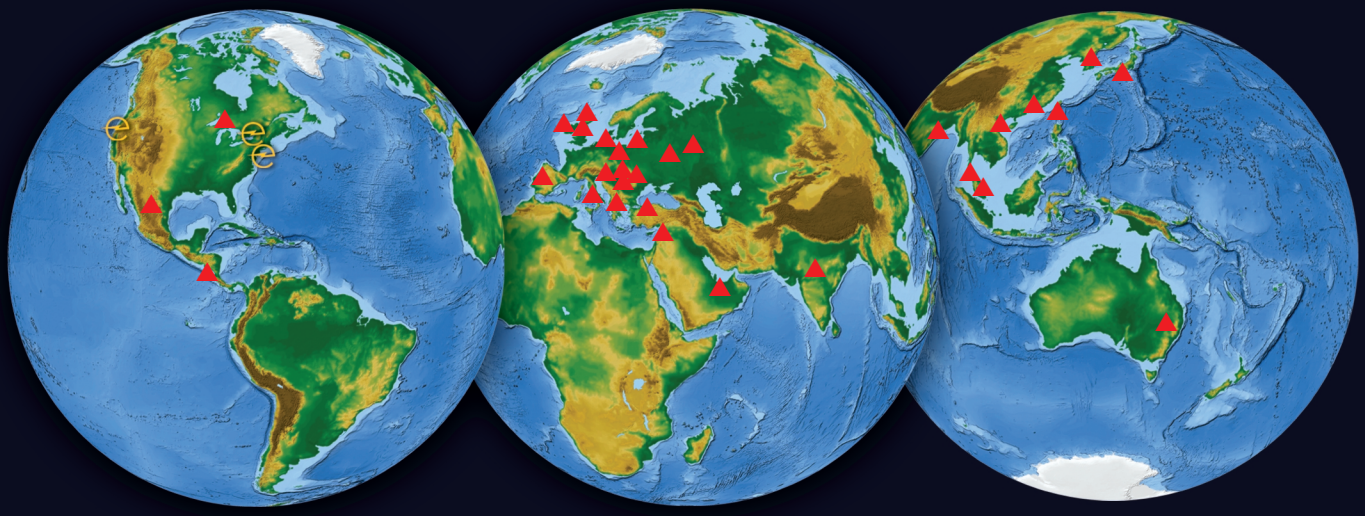

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