

FUELCELL ENERGY INC  
Form 10-K  
January 14, 2009

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

FORM 10-K

(Mark One)

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

For the fiscal year ended: October 31, 2008

OR

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

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

Commission File Number: 1-14204  
FUELCELL ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

06-0853042  
(I.R.S. Employer  
Identification Number)

3 Great Pasture Road  
Danbury, Connecticut  
(Address of principal executive offices)

06813  
(Zip Code)

Registrant's telephone number, including area code (203) 825-6000

Securities registered pursuant to Section 12(b) of the Act.  
None.

Securities registered pursuant to Section 12(g) of the Act:  
Common Stock, \$0.0001 Par Value  
Name of each exchange on which registered: NASDAQ

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.  
Yes  No

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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 Registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act (Check one):

Large Accelerated Filer

Accelerated Filer

Non-accelerated Filer

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes  No

The aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant known to us as of April 30, 2008 was approximately \$605.9 million, which is based on the closing price of \$8.83 on April 30, 2008.

On January 12, 2009 there were 68,816,261 shares of common stock of the registrant issued and outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE** Certain information contained in the registrant's definitive proxy statement relating to its forthcoming 2009 Annual Meeting of Shareholders to be filed not later than 120 days after the end of registrant's fiscal year ended October 31, 2008 is incorporated by reference in Part III of this Annual Report on Form 10-K.

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FUELCELL ENERGY, INC.

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## Forward-looking Statement Disclaimer

When used in this Report, the words “expects”, “anticipates”, “estimates”, “should”, “will”, “could”, “would”, “may”, and similar expressions are intended to identify forward-looking statements. Such statements relate to the development and commercialization of our fuel cell technology and products, future funding under government research and development contracts, the expected cost competitiveness of our technology, and our ability to achieve our sales plans and cost reduction targets. These and other forward looking statements contained in this report are subject to risks and uncertainties, known and unknown, that could cause actual results to differ materially from those forward-looking statements, including, without limitation, general risks associated with product development and introduction, changes in the utility regulatory environment, potential volatility of energy prices, government appropriations, the ability of the government to terminate its development contracts at any time, rapid technological change, and competition, as well as other risks contained under Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors That May Affect Future Results” of this Report. We cannot assure you that we will be able to meet any of our development or commercialization schedules, that the government will appropriate the funds anticipated by us under our government contracts, that the government will not exercise its right to terminate any or all of our government contracts, that any of our products or technology, once developed, will be commercially successful, or that we will be able to achieve any other result anticipated in any other forward-looking statement contained herein. The forward-looking statements contained herein speak only as of the date of this report. Except for ongoing obligations to disclose material information under the federal securities laws, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any such statement to reflect any change in our expectations or any change in events, conditions or circumstances on which any such statement is based.

## Background

Information contained in this report concerning the electric power supply industry and the distributed generation market, our general expectations concerning this industry and this market, and our position within this industry are based on market research, industry publications, other publicly available information and on assumptions made by us based on this information and our knowledge of this industry and this market, which we believe to be reasonable. Although we believe that the market research, industry publications and other publicly available information are reliable, including the sources that we cite in this report, they have not been independently verified by us and, accordingly, we cannot assure you that such information is accurate in all material respects. Our estimates, particularly as they relate to our general expectations concerning the electric power supply industry and the distributed generation market, involve risks and uncertainties and are subject to change based on various factors, including those discussed under “Risk Factors” in Item 1A of this report.

We define distributed generation as small (typically 50 megawatts or less) electric generation plants (combustion-based such as engines and turbines as well as non-combustion-based such as fuel cells) located at or near the end user. This is contrasted with central generation that we define as large power plants (typically hundreds of megawatts to 1,000 megawatts or larger) that deliver electricity to end users through a comprehensive transmission and distribution system.

As used in this report, all degrees refer to Fahrenheit (“F”) and kilowatt and megawatt numbers designate nominal or rated capacity of the referenced power plant. As used in this Annual Report, “efficiency” or “electrical efficiency” means the ratio of the electrical energy (“AC”) generated in the conversion of a fuel to the total energy contained in the fuel. Lower heating value, the standard for power plant generation assumes the water in the product is in vapor form; as opposed to higher heating value, which assumes the water in the product is in the liquid form, net of parasitic load; “overall energy efficiency” refers to efficiency based on the electrical output plus useful heat output of the power plant; “kilowatt” (“kW”) means 1,000 watts; “megawatt” (“MW”) means 1,000,000 watts; “kilowatt hour” (“kWh”) is equal to 1kW power supplied to or taken from an electric circuit steadily for one hour, and “Btu” is equal to one British Thermal Unit

(the amount of heat necessary to raise one pound of pure water from 59oF to 60oF at a specified constant pressure).

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All dollar amounts are in U.S. dollars unless otherwise noted.

Additional technical terms and definitions:

**Alternating Current (“AC”)** — Electric current where the magnitude and direction of the current varies cyclically, as opposed to Direct Current (“DC”), where the direction of the current stays constant. The usual waveform in an AC power circuit is a sine wave, as this results in the most efficient transmission of energy. AC refers to the form in which energy is delivered to businesses and residences.

**Anaerobic Digester Gas** – Fuel gas produced in biomass digesters employing bacterial and controlled oxygen environment from municipal, industrial or commercial water treatment facilities.

**Anode** – An active fuel cell component functioning as a negative electrode, where oxidation of fuel occurs. Also referred to as “fuel electrode.”

**Availability** – An industry standard (IEEE (The Institute of Electrical and Electronics Engineers) 762, “Definitions for Use in Reporting Electric Generating Unit Reliability, Availability and Productivity”) used to compute total operating period hours less the amount of time a power plant is not producing electricity due to planned or unplanned maintenance. “Availability percentage” is calculated as total operating hours since commercial acceptance date (mutually agreed upon time period when our DFC power plants have operated at a specific output level for a specified period of time) less hours not producing electricity due to planned and unplanned maintenance divided by total period hours. Grid disturbances, force majeure events and site specific issues such as a lack of available fuel supply or customer infrastructure repair do not penalize the calculation of availability according to this standard.

**Balance of Plant (“BOP”)** – Balance of plant consists of the remaining systems, components, and structures that comprise a complete power plant or energy system that are not included in the fuel cell stack module. We manufacture the fuel cell stack module and procure the balance of plant (items such as fuel handling, processing equipment and electrical interface equipment such as inverters to convert the fuel cell stack module’s DC electricity output to AC) from third parties.

**Cathode** – An active fuel cell component functioning as a positive (electrically) electrode, where reduction of oxidant occurs. Also referred to as “oxidant electrode.”

**Co-generation Configuration** – A power plant configuration featuring simultaneous onsite generation of electricity and recovery of waste heat to produce process steam or hot water, or to use heat for space heating.

**Humid Flue Gas** – Exhaust gas from fuel cell and other power plants or a furnace. The gas typically contains humidity (moisture).

**Metallic Bipolar Plates** – The conductive plates used in a fuel cell stack to provide electrical continuity from active components of one cell to those in an adjacent cell. The plates also provide isolation of fuel and air fed to the fuel cell.

**Microturbine** – A gas turbine with typical power output ranges of 30 kW to 350 kW. Microturbines are characterized by low-pressure ratios (less than 5) and high-speed alternators.

Nitrogen Oxides (“NOX”) — Generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the NOX are colorless and odorless. However, one common pollutant, Nitrogen Dioxide (“NO<sub>2</sub>”), along with particles in the air, can often be seen as a reddish-brown layer over many urban areas. NOX form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOX are motor vehicles, electric utilities, and other industrial, commercial and residential sources that burn fuels.

Reforming – Catalytic conversion of hydrocarbon fuel (such as pipeline natural gas or digester gas) to hydrogen-rich gas. The hydrogen-rich gas serves as a fuel for the electrochemical reaction.

Renewable Portfolio Standards (“RPS”) – States seeking to secure cleaner energy sources are setting standards that require utilities provide a certain amount of their electricity from renewable sources such as solar, wind or other biomass-fueled technologies, including fuel cells. These standards are referred to as Renewable Portfolio Standards. There are currently 28 states and the District of Columbia that have instituted RPS mandates. These markets represent a potential for an estimated 88,000 MW by 2025. Fuel cells using biogas fuels qualify as renewable power generation technology in all of the RPS states, with several states specifying that fuel cells operating on natural gas are eligible for these initiatives.

Sulfur Oxide (“SOX”) – Sulfur oxide refers to any one of the following: sulfur monoxide, sulfur dioxide (“SO<sub>2</sub>”) and sulfur trioxide. SO<sub>2</sub> is a byproduct of various industrial processes. Coal and petroleum contain sulfur compounds, and generate SO<sub>2</sub> when burned.

Synthesis Gas – A gas mixture of hydrogen and carbon monoxide generally derived from gasification of coal or other biomass. It can serve as a fuel for the fuel cell after any required fuel clean up.

## Item 1. BUSINESS

### OVERVIEW

FuelCell Energy, Inc. (“FuelCell Energy” or “Company”) is a world leader in the development and manufacture of fuel cell power plants for ultra-clean, efficient and reliable electric power generation. Our power plants are designed to meet the 24/7 baseload power needs of commercial, industrial, government and utility customers. Our products have generated over 260 million kilowatt hours (kWh) of electricity and are operating at over 50 locations around the world.

Our Company was founded in 1969. Our core fuel cell products (“Direct FuelCell®” or “DFC® Power Plants”) offer stationary power generation applications for customers. In addition to our commercial products, we continue to develop our next generation of carbonate fuel cells and planar solid oxide fuel cell (“SOFC”) technology with our own and government research and development funds.

Our proprietary DFC power plants electrochemically (without combustion) produce electricity directly from readily available hydrocarbon fuels such as natural gas and biogas. Customers buy fuel cells to reduce power costs and pollution, and improve power reliability. Electric generation without combustion significantly reduces harmful pollutants such as NOX and particulates. Higher fuel efficiency results in lower emissions of carbon dioxide (“CO2”), a major component of harmful greenhouse gases, and also results in less fuel needed per kWh of electricity generated and Btu of heat produced. Greater efficiency reduces customers’ exposure to volatile fuel costs and minimizes operating costs. Our fuel cells operate 24/7 providing reliable power to both on-site customers and for grid-support applications.

Compared to other power generation technologies, our products offer significant advantages:

- Virtually zero emissions, quiet operation
- High fuel efficiency
- Reliable, 24/7 baseload power
- Ability to site units locally
- Potentially lower cost power generation
- Byproduct heat ideal for cogeneration applications.

Typical customers for our products include manufacturers, mission critical institutions such as correction facilities and government installations, hotels, and customers that can use renewable gas for fuel such as breweries, food processors, and wastewater treatment facilities. Our megawatt (MW) class products are also used as grid support applications for utility customers. With increasing demand for renewable and ultra-clean power options and increased volatility in electric markets, our customers gain control of power generation economics, reliability, and emissions. Our fuel cells also offer flexible siting, easy permitting, and the ability to use multiple fuels.

Our DFC power plants are protected by 56 U.S. and 97 international patents and we have submitted 38 U.S. and 168 international patent applications.

### 2008 Update

We achieved significant milestones during 2008. We closed record orders, doubled sales and revenues, and reduced the cost of our products compared to the prior year.



In fiscal 2008, customers ordered 32.3 MW of fuel cells compared to 14.8 MW in the prior year. We ended fiscal 2008 with 32.5 MW in backlog with over 90 percent for MW-class products (1.2 MW and larger).

We also completed our design of the newest MW-class power plants that we anticipate will go into production in the third fiscal quarter of 2009. The new design incorporates new stacks with outputs of 350 kW each compared to 300 kW previously, along with lower component and raw material costs derived from process improvements, volume manufacturing and global sourcing. With production of these new models, we expect all future MW-class orders to be gross margin positive.

In mid-2008, we ramped to an annualized production rate of approximately 30 MW in response to worldwide demand for the Company's MW-class power plants. Actual production in fiscal 2008 was approximately 22 MW compared to approximately 11 MW in 2007.

#### Markets

The market for alternative energy power generation is growing both in the U.S. and abroad and we expect to continue to benefit from this momentum. Driving this growth are concerns about the limited supply and rising cost of fossil fuels and environmental concerns. More than 66 percent of the world's electric power is generated from carbon-based fossil fuels, and this is forecasted to continue to increase for some time. Countries, states, provinces, cities, and towns are looking for better solutions that use these fuels more efficiently, economically and at the same time, cleanly. With the primary source of electric generation still driven by fossil fuels, markets need new power generation products like DFC fuel cells that are not only more efficient and environmentally superior, but also cost effective and reliable.

**On-Site Power.** Stationary fuel cell power plants can be an economical alternative to utility-provided power and other distributed generation products. Wastewater treatment facilities and brewery companies, for instance, can use methane, a byproduct of their own processes, to operate their fuel cell power plants. This allows them to eliminate gas flaring and the use of conventional combustion-based power generation equipment, both of which add to pollution. These facilities also reduce their costs of operation because our fuel cell power plants can be up to 80 percent efficient when operated in combined heat and power (CHP) mode, producing significantly more high-value electricity than competing technologies. Customers gain the added benefits of quiet operation, and improved power reliability.

As we reduce our product costs, we are able to price our products competitively in our markets. In California, for instance, factoring in the value of the heat used for cogeneration, government incentives, and possible offsets due to emissions credits, the net cost to the end user of our products is approximately \$0.10 to \$0.12/kWh, depending on location and application - a level competitive with grid-delivered electricity and other distributed generation products in our target markets. Tougher emission standards increase the cost of competing products and as our costs continue to come down, we become increasingly more competitive in more markets.

**Utility or RPS.** States seeking to secure cleaner energy sources and greater energy independence are setting standards that require utilities to provide a certain amount of their electricity from renewable sources such as solar, wind, biomass-fueled technologies, and fuel cells.

There are currently 28 states and the District of Columbia that have instituted RPS mandates. These markets represent a potential for an estimated 88,000 MW by 2025. Fuel cells using biogas fuels qualify as renewable power generation technology in all the RPS states, with several states specifying that fuel cells operating on natural gas are also eligible for these initiatives.

Fuel cells can play a critical role in meeting RPS clean power mandates by generating highly efficient, 24/7 electric power that also balances other forms of intermittent power generation such as wind and solar as they are incorporated into the electric grid infrastructure. Increased use of wind, solar and traditional generation requires upgrades to the transmission and distribution system, whereas our fuel cells fit into the existing grid, augmenting power where needed. By producing power locally in the distribution system, our fuel cells can ease grid constraints, making room

for additional central wind or solar in the system.

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DFC fuel cells offer utilities and end-users economical, 24/7, reliable ultra-clean power that is easily sited in grid-constrained areas, avoiding substantial transmission and distribution equipment upgrades.

We have established a leading position in the sale of fuel cell power plants and strengthened our position by continuing to improve our product performance and availability, reducing costs for our products, and expanding repeatable markets for our DFC products. Our cumulative fleet availability remains at approximately 90 percent and our newer units are at approximately 95 percent availability.

### Business Strategy

Our business strategy is to expand our leadership position in key markets, build multi-MW markets and continue to reduce the cost of our products. A production mix more heavily weighted with MW-class products is our fastest path to achieve profitability. In 2009, our focus will be:

Build on our leadership position in vertical and geographic markets

- South Korea - Our South Korean partner, POSCO Power, ordered 30.4 MW of our DFC power plants during fiscal 2008 and all of these orders were for MW-class power plants. POSCO Power's total orders to date amount to 38.2 MW. In early 2007, we signed a 10-year manufacturing and distribution agreement with POSCO Power. Under the agreement, POSCO Power made a significant investment in a 50 MW fuel cell BOP manufacturing facility, which opened in September 2008. In the second half of 2009, we will begin shipping fuel cell stack modules to POSCO Power which will be integrated with BOP manufactured in South Korea.

In September 2008, South Korea, as part of President Lee's "green growth" vision declared fuel cells a key economic driver for the country. This vision refers to the creation of sustainable growth that reduces greenhouse gas emissions and creates new growth engines and jobs with green technology and clean energy. We expect this public policy will foster a favorable environment for fuel cell power plant sales and for POSCO Power's aggressive penetration of its market with our DFC power plants.

- California - California is a strong proponent of clean energy in the U.S. and an excellent market from which we expect continued growth. Eastern Municipal Wastewater District ordered a 750 kW power plant in fiscal 2008 and we shipped 4.45 MW of fuel cells to customers including Eastern Municipal Wastewater District, the City of Riverside's Water Quality Control Plant, Gills Onions, Turlock Irrigation District, Camp Pendleton, and M&L Commodities. By comparison, we shipped 3.15 MW of orders to California customers in fiscal 2007.

In 2008, the California Public Utilities Commission raised the cap on monetary incentives for funds under the state's Self-Generation Incentive Program (SGIP) for clean energy projects to 3 MW. The SGIP provides \$4,500 per kW for power plants operating on biofuel and \$2,500 per kW for power plants operating on natural gas. Under the revised SGIP, the first 1 MW of a project is entitled to 100 percent of the incentive; the second MW of power is eligible for 50 percent of the incentive; and the third MW receives 25 percent of the incentive. To fund the existing program's expansion, the SGIP will be supplemented in 2008 and 2009 with an additional \$96 million of unspent SGIP funds from prior years. All of these positive developments lead us to believe we will experience strong order flow in California.

- Wastewater Treatment / Biofuels – The wastewater treatment market continues to be among our strongest because our fuel cells are particularly economical and efficient for these customers. For example, in California, the SGIP provides incentive funding of up to \$4,500 per kW for fuel cells running on biogas. Since our fuel cells operate on the biogas produced by the wastewater treatment process and their byproduct heat is used in the treatment process the efficiency of these installations can be as much as 80 percent. Fuel cells operating on biogas qualify for incentives in all 28 RPS states and Washington D.C.

There are currently 9 MW of our DFC fuel cell power plants installed or in backlog for wastewater treatment / biogas applications. We believe the domestic market opportunity is approximately 500 MW. Based on our installed base, market support for our products, and our marketing focus in this area, we expect wastewater treatment facilities to continue to be a strong market for our products.

- Natural Gas Pipeline Letdown Stations - Natural Gas Pipeline Applications - FuelCell Energy recently completed installation of a 1.2 MW fuel cell power plant for Enbridge, Inc. for inclusion in a Direct FuelCell-Energy Recovery Generation™ (DFC-ERG™) system in Toronto, Ontario, Canada. This system combines our fuel cells with a turbo expander to achieve up to 65 percent efficiency in power generation. The system generates ultra-clean electricity while recovering energy normally lost during natural gas pipeline operations. A second 9 MW DFC-ERG system is part of the 16.2 MW of projects in final negotiations under Round 2 of Connecticut's Project 150. This system will be the largest fuel cell installation anywhere in the world upon completion. Three additional DFC-ERG systems are included in the 27 MW under consideration by the Connecticut Department of Public Utility Control (DPUC) in Round 3.

This DFC-ERG distributed generation technology is unique in that it converts more than 60 percent of the input energy into electricity. Natural gas transmission networks utilize long-distance pipelines operating at very high pressures. These pressures are required to maintain a high volume of flow in the system. Gas distribution lines to homes and businesses, however, use a much lower pressure for safety and to accommodate end use equipment. Pressure is reduced at local utility letdown stations to accommodate the distribution network. As pressure is reduced, the gas naturally cools because of the refrigerant effect of gas expansion. To prevent the gas systems and pipeline from freezing, the gas must be heated before it flows through the expansion process, usually with gas-fired boilers that produce CO<sub>2</sub> and other pollutants. Additionally, the energy available in this letdown process is lost. With the DFC-ERG, the energy normally lost is harnessed by a turbo expander to drive an electric generator to produce additional electric power. Waste heat from the DFC-ERG provides the heat required by the expansion process, replacing gas-fired boilers. The utility grade electric power produced by the DFC-ERG system is used to service on-site power requirements or the power grid. The market in Toronto, the Northeastern U.S. and California represents an opportunity of 250-350 MW for DFC-ERG systems.

#### Build Renewable Portfolio Standards Markets

RPS programs mandate a certain percentage of electricity be generated from renewable and ultra-clean resources. Our multi-MW products in installations from 2 to 50 MW and our natural gas pipeline applications are well suited to address these markets. We are focusing on several near term opportunities:

- Connecticut – We and our partners submitted multi-MW bids to the Connecticut Clean Energy Fund (CCEF) in December 2006 under Round 2 of Connecticut's Project 150. The DPUC awarded 16.2 MW of these projects using six of our DFC3000 power plants, including a 9 MW DFC-ERG project slated for Milford, Connecticut, that will be the largest fuel cell project in the world upon installation. During 2008, the Federal Investment Tax Credit (ITC) eight-year extension and increase to \$3,000 per kW or 30 percent, whichever is less, passed in October, enabling the Round 2 project developers to enter into final negotiations for financing and equipment.



Under Round 3 of Connecticut's Project 150, the CCEF recommended 27.3 MW of projects that use our power plants, including three DFC-ERG™ plants, a fuel cell/turbine hybrid power plant (DFC/T) and a DFC3000 project. A final decision is expected by the DPUC by January 28, 2009.

#### Continue to Reduce Product Costs –

Reducing product cost is essential to our ability to further penetrate markets with our fuel cell power plants. Cost reductions are critical to attaining profitability and will reduce and eventually eliminate the need for incentive funding programs. Examples of product cost reduction are:

- We have reduced the cost of our MW-class power plants by approximately 85 percent since our 'proof-of-concept' 2 MW Santa Clara project in 1996-1997. In 2003, we implemented our commercial cost-out program, hiring additional engineers who focused on reducing the total life cycle costs of our power plants. We have made significant progress primarily through value engineering our products, manufacturing process improvements, technology improvements, and global sourcing.
- In fiscal 2008, we completed the design of our newest MW-class power plants that will go into production in the fourth fiscal quarter of 2009. With these new models, all future MW-class orders are expected to be gross margin positive. The cost reduction improvements are primarily driven by increasing the power output from 300 to 350 kW per fuel cell stack, combined with better component and raw materials pricing derived from volume manufacturing.
- In 2008 we began manufacturing our first five-year fuel cell stacks, representing a service cost reduction. Previously, estimated stack life was approximately three years.
- Continued increases in our production volume over our current rate will also result in additional cost reduction.

We sell both completed power plants and fuel cell modules (the part of a fuel cell that produces the power). Of the current product backlog, over 90 percent is for MW-class complete power plants and fuel cell modules. Based on the current backlog, we expect the mix of production to move primarily to DFC3000 power plants and fuel cell modules in fiscal 2009 and beyond. We believe we can reach gross margin breakeven at a sustained annual order and production volume of approximately 35 to 70 MW, that net income breakeven can be achieved at a sustained annual order and volume production of approximately 75 to 125 MW depending on product mix, volume mix of full power plants vs. modules only, future service costs, and other variables that may affect sales pricing.

## PRODUCTS

### Direct FuelCell® (DFC®) Power Plants

Our core products, the DFC300, DFC1500 and DFC3000, are currently rated in capacity at 300 kW, 1.4 MW and 2.8 MW, respectively and are designed for applications up to 50 MW. During fiscal 2008, we completed new designs for our MW-class power plants that increased power output of the MW-class plants from their earlier ratings of 1.2 MW and 2.4 MW, respectively.

Our fuel cells operate on a variety of hydrocarbon fuels, including biogas, methanol, diesel, coal gas, coal mine methane and propane. DFC power plants are designed to achieve electrical efficiencies of 47 to 65 percent depending on configuration, location, and application, and up to 80 percent when used in a CHP system. They are designed for distributed generation applications to meet the baseload power requirements of a wide range of customers including wastewater treatment plants (municipal, such as sewage treatment facilities, and industrial, such as breweries and food processors), hotels, manufacturing facilities, universities, hospitals, government facilities, as well as grid support applications for utility customers. Our DFC power plants can be part of a total on-site power generation solution with our high efficiency products providing baseload power along with grid-delivered electricity. Our power plants can also work in conjunction with intermittent power, such as solar, or less efficient combustion-based equipment, providing peaking and load following energy. Our products are also ideal to meet the needs of utilities and RPS mandates.

A fuel cell electrochemically converts a hydrocarbon fuel into electricity without combustion. The primary byproducts of the fuel cell process are heat and water. CO<sub>2</sub> is an additional byproduct although the high efficiency results in less CO<sub>2</sub> per unit of power produced compared to other distributed generation. A fuel cell power plant can be thought of as having two basic segments: the fuel cell stack module, the part that actually produces the electricity, and the balance of plant (BOP), which includes various fuel handling and processing equipment such as pipes and blowers, and electrical interface equipment such as inverters to convert the fuel cell stack module's DC electricity output to AC. Our fuel cells produce virtually no SOX, NOX, or particulate matter emissions.

Conventional fossil fuel power plants generate electricity by combusting hydrocarbon fuels, such as coal, oil, or natural gas. With reciprocating engines, fuel combustion takes place within the engine that drives a generator that produces electricity. In a gas turbine combined cycle plant, fuels such as natural gas, are burned in the gas turbine, which drives a generator. The exhaust heat from the gas turbine is used to boil water, which converts to high-pressure steam, which is used to rotate a steam turbine generating additional electricity. The combustion process typically creates emissions of SOX, NOX, CO<sub>2</sub>, carbon monoxide, particulates and other air pollutants.



The following table shows industry estimates of the electrical efficiency, operating temperature, expected capacity range and certain other operating characteristics of the principal types of fuel cells being developed for commercial applications:

Fuel Cell Type	Electrolyte	Electrical Efficiency Percentage	Electrical Efficiency With Bottom Cycle Percentage	Operating Temperature oF	Expected Capacity Range	By-Product Heat Use
PEM	Polymer Membrane	30-35	NA	180	5 kW to 250 kW	Warm Water
Phosphoric Acid	Phosphoric Acid	35-40	NA	400	50 kW to 200 kW	Hot Water
Carbonate (Direct FuelCell®)	Potassium/Lithium Carbonate	45-50	58 – 65	1,200	300 kW to 2.8 MW and larger	Hot Water or High Pressure Steam
Solid Oxide	Stabilized Zirconium Dioxide Ceramic	45-50	58 - 65	1,400-1,800	3 kW to 1 MW and larger	Hot Water or High Pressure Steam

Our carbonate fuel cell, known as the Direct FuelCell, operates at approximately 1200°F. This temperature avoids the use of precious metal electrodes required by lower temperature fuel cells, such as proton exchange membrane (“PEM”) and phosphoric acid, and the more expensive metals and ceramic materials required by higher temperature fuel cells, such as tubular solid oxide. As a result, we are able to use less expensive catalysts and readily available metals in our designs. In addition, our fuel cell produces high quality byproduct heat energy (700°F) that can be harnessed for CHP applications using hot water, steam, or chiller water to heat or cool buildings.

Our Direct FuelCell is so named because of its ability to generate electricity directly from a hydrocarbon fuel, such as natural gas or wastewater treatment gas, by reforming the fuel inside the fuel cell to produce hydrogen. We believe that this “one-step” reforming process results in a simpler, more efficient, and cost-effective energy conversion system compared with external reforming fuel cells. External reforming fuel cells, such as PEM and phosphoric acid, generally use complex, external fuel processing equipment to convert the fuel into hydrogen. This external equipment increases capital cost and reduces electrical efficiency. Additionally, natural gas and wastewater treatment gas have infrastructures that are already established. Consequently, our DFC products do not need to wait for the development of the hydrogen infrastructure for continued commercialization.

## MARKETS AND APPLICATIONS

The worldwide market for alternative energy power generation is growing and we expect to continue to benefit from this momentum. Governments around the world, including the U.S. and South Korean governments, have tied the support of green energy programs to economic growth.

In October 2008, the U.S. Congress extended the Federal ITC for eight years and increased it to \$3,000 per kW or 30 percent, whichever is less, for fuel cells. President-elect Barack Obama has called for the creation of up to 5 million jobs through investments in efforts to build a clean energy future. His clean energy proposals include the federal RPS,

a Cap-and-Trade program, and ensuring that the government itself (the biggest energy user in the world) is energy efficient.

In South Korea, the Ministry of Knowledge Economy designated fuel cells as a key economic driver for the country under President Lee Myung-bak's green growth plan. The efficient production of electricity has important economic benefits for South Korea since it imports its fossil fuels. Additionally, the country's clean energy program requires clean electricity to first be put on the utility grid, encouraging the deployment of MW-class systems.

## Distributed Generation Markets and Applications

We compete in the distributed generation marketplace. We believe distributed generation can be a more cost-effective solution than traditional grid-delivered electricity:

- Provides better economics. Distributed generation avoids transmission and distribution system investment by using the existing infrastructure close to the end user. Customers can use the heat byproduct from on-site power generation (combined heat and power) boosting efficiency and lowering energy costs. Distributed generation also offers the ability to control energy costs through fuel flexibility and efficiency.
  - Increases reliability by locating power closer to the end user. On-site power generation bypasses the congested transmission and distribution system, increasing electrical reliability.
- Eases congestion in the transmission and distribution system. Each kW of on-site power generation removes the need for the same amount from the centralized transmission and distribution system, easing congestion that can cause power outages and hastening the grid recovery after electrical infrastructure problems have been resolved. In addition, distributed generation provides added strength to the grid by opening up distribution capacity for central wind or solar generation.
- Reduces the need for new large generation and associated transmission and distribution line investments and provides greater capacity utilization in less time. On-site, distributed generation can be added in increments that more closely match expected demand in a shorter time frame (weeks to months) compared with traditional central power generation plants and transmission and distribution systems (often 36 months or longer) that require more extensive siting and right of way approvals. Siting distributed generation can defer or avoid massive transmission and distribution investment such as unpopular above ground high voltage lines or expensive underground high voltage lines.
- Enables the use of more renewable fuel for power generation. Distributed generation enables end-users to use renewable biogas to generate highly efficient, clean power, and reduces the need for fossil fuels.
- Promotes greater energy independence. Distributed generation reduces dependence on foreign oil and on centralized power generators, giving customers more control over their power costs and supply.
- Enhances security. By locating smaller, incremental power plants in dispersed locations closer to energy consumers, distributed generation can reduce dependence on a vulnerable centralized electrical infrastructure.

Our fuel cell products are competitive in the marketplace because of superior product attributes including higher operational efficiency, lower emissions and the ability to utilize multiple fuels. Our fuel cells are unique among power generation technologies (including other fuel cells) in that they provide these attributes at a scale suitable to distributed generation. The only other commercial power generation technology with fuel efficiency comparable to our products – combined cycle power plants – achieves that efficiency only in systems rated at hundreds of MWs. The fact that fuel cells provide their high efficiency at small sizes, combined with the ultra-clean and quiet operating characteristics, makes them an ideal power generation technology for distributed generation. While most small-scale technologies have high emissions or low efficiency, our direct fuel cells provide the efficiency of a large combined cycle power plant in a size small enough to be located near the end user. This avoids the need to add transmission or distribution capacity, and provides a mechanism to strengthen the existing distribution system.

When power generation is installed near the end user, it becomes possible to provide additional value to local customers by using the fuel cell waste heat to provide hot water or steam. This thermal energy offsets other means of heat production, generally burning oil or gas, which further reduces CO<sub>2</sub> and other emissions. Reduced transmission and distribution constraints and lower emissions are key benefits of distributed generation, which become feasible with a technology like the fuel cell.

Target applications include those where customers can use renewable fuels such as wastewater treatment facilities, breweries, and food processors. Other on-site applications include those facilities that require reliable, baseload power, ultra-clean distributed generation including manufacturers, mission critical institutions such as correction facilities and government installations, hotels, and hospitals.

As a result of the high efficiency and flexible siting of our fuel cell power plants, fuel cells in grid support can provide economical, baseload power in grid-constrained areas to avoid substantial transmission and distribution equipment upgrades. Our fuel cells produce clean power that meet RPS requirements, operate quietly, and can be installed in a third the time required for new central generation. For utilities, distributed generation can be a superior choice to new central generation and other forms of distributed generation.

#### Strategic Alliances and Market Development Agreements

Our original equipment manufacturer (“OEM”) and energy service company (“ESCO”) partners have extensive experience in designing, manufacturing, distributing selling and servicing energy products worldwide. We believe our strength in the development of fuel cell products coupled with their understanding of sophisticated commercial and industrial customers, products, and services will enhance the sales, service, and product development of our power plants.

**POSCO Power.** In February 2007, we signed a 10-year manufacturing and distribution agreement with POSCO, one of the world’s largest producers of steel. Our agreements include the rights to distribute and package DFC power plants in South Korea. POSCO Power, a POSCO subsidiary, has extensive experience in power plant project development, having built over 2,400 MW of power plants, equivalent to 3.7 percent of South Korea’s national capacity. POSCO Power made a substantial investment in its 50 MW fuel cell BOP manufacturing facility in Pohang, which opened in September 2008. In late 2009, POSCO Power will begin manufacturing the BOP, the non power producing portion of a DFC power plant.

To date POSCO Power has ordered 38.2 MW of our DFC power plants, 30.4 MW during fiscal 2008.

**Enbridge, Inc.** Enbridge is a global leader in energy transportation and distribution. We have a market development agreement for North America that includes current DFC product distribution and the new DFC-ERG™ power plant that they co-developed with us. A 1.2 MW DFC-ERG unit was installed at Enbridge’s headquarters in Toronto during the fiscal fourth quarter of 2008. We have also been selected for a 9 MW DFC-ERG installation at a natural gas let-down station in Milford, CT. under the Connecticut Project 150 Round 2 projects which are in final negotiations. Three additional DFC-ERG systems are included in the 27 MW under consideration in Round 3 by the DPUC.

**Marubeni Corporation.** Working with Marubeni, we have installed 4.75 MW and currently have 1.5 MW in order backlog from Marubeni. Four DFC300 units sold by Marubeni totaling 1 MW in output are operating at the Sharp Ltd. “super-green” factory in Kameyama Prefecture, where Sharp manufactures LCD screens for its flat-panel television displays. The 1 MW fuel cell installation provides baseload power to the facility, while 5 MW of Sharp’s own photovoltaic modules provide peaking power. Altogether, the system provides 30 percent of the plant’s energy needs.

**MTU Onsite Energy GmbH.** MTU Onsite Energy, a Tognum Group Company headquartered in Ottobrunn, Germany, was a co-developer of our DFC technology. Our first sub-MW power plant was a collaborative effort using our DFC

technology and the Hot Module® BOP designed by MTU Friedrichschafen GmbH now known as MTU Onsite Energy (previously CFC Solutions). As an OEM developer of stationary fuel cell power plants, MTU Onsite Energy assembles and stacks the DFC components that we sell it and MTU Onsite Energy adds its mechanical and electrical BOP for ultimate sale to their customers. There are twelve installations for a total of 3.0 MW operating in Europe.

Caterpillar, Inc. DFC units have been shipped to several commercial Caterpillar customers including a municipal wastewater treatment application for the Sanitation Districts of Los Angeles County in Palmdale, California and the State University of New York College of Environmental Science and Forestry.

Energy Service Company Distribution Partners. We also partner with energy service companies that have expertise in the markets where we compete. These partners include: Alliance Power, Inc., Chevron Energy Solutions, LOGANEnergy Corp., The Linde Group and PPL Energy Plus.

## COMPETITION

We compete on the basis of our products' reliability, fuel efficiency, environmental considerations, and cost. We believe that our DFC carbonate fuel cell offers competitive and environmental advantages over other fuel cell designs and combustion-based technologies for stationary baseload power generation.

Our DFC power plants specifically provide the following attributes that provide an advantage over other distributed technologies of similar size:

- **Higher operational efficiency.** Our DFC power plants are designed to achieve electrical efficiencies of up to 47 percent and an overall energy efficiency of up to 80 percent for CHP applications. Our newest products, the DFC-ERG for natural gas letdown stations, and the DFC/T targeted for large load users, and achieve efficiencies of approximately 65 percent. This is significantly greater than the fuel efficiency of competing combustion-based technologies (25-35 percent) and the average U.S. fossil fuel power plant (33 percent), and results in a lower cost per kWh over the life of the power plant.
- **Lower emissions.** Our DFC power plant installations emit less carbon dioxide, and near zero SOX, NOX and particulate matter. They have been designated ultra-clean by the California Air Resources Board ("CARB"), and our DFC products are certified to CARB 2007 emissions standards.

Emissions of fuel cell power plants versus traditional combustion-based power plants are as follows:

	Emissions (Lbs. Per MWh)				CO2 with CHP
	NOX	SO2	PM10	CO2	
Average U.S. Fossil Fuel Plant	5.06	11.6	0.27	2,031	NA
Microturbine (60 kW)	0.44	.008	0.09	1,596	520 – 680
Small Gas Turbine	1.15	.008	0.08	1,494	520 – 680
Direct Fuel Cell	0.01	0.0001	0.00002	980	520 – 680

- **Fuel flexibility.** Our DFC power plants can use many fuel sources, such as natural gas, biogas from wastewater treatment facilities, food processors and breweries, and coal gas (escaping gas from active and abandoned coal mines as well as synthesis gas processed from coal). This enhances independence from imported oil and gives customers fuel flexibility, allowing them to choose the least expensive alternative.

- Provide end users with greater control of their energy costs. The high efficiency of our DFC power plants and 24/7 operation gives customers predictability and savings on energy costs. The cost of utility-provided power continues to rise and is subject to significant volatility. Generating on-site power with known generating costs from a DFC power plant gives customers a predictable component of their operations that can be budgeted and controlled.

Several companies in the U.S. are involved in fuel cell development, although we believe we are the only domestic company engaged in significant manufacturing and commercialization of carbonate fuel cells. Emerging fuel cell technologies (and companies developing them) include PEM fuel cells (Ballard Power Systems, Inc., UTC Power, Samsung Everland, and Plug Power), phosphoric acid fuel cells (UTC Power and HydroGen) and solid oxide fuel cells (Siemens Power Generation, Cummins, General Electric, Delphi, Rolls Royce, Bloom Energy, and Acumentrics). Each of these competitors has the potential to capture market share in our target markets.

There are other potential carbonate fuel cell competitors internationally. In Asia, Doosan Corporation and IHI Corporation have been involved in carbonate development. Fuji Electric has been involved with both PEM and phosphoric acid fuel cells. In Europe, a company in Italy, Ansaldo Fuel Cells, is engaged in the development of a 100 kW carbonate fuel cell, although we believe MTU Onsite Energy has been the most active fuel cell company in Europe.

Other than fuel cell developers, we also compete with electricity provided by the electric grid and manufacturers of more mature combustion-based equipment, including various engines and turbines that have more established manufacturing, distribution, operating, and cost features. These manufacturers include: Caterpillar, General Electric, Cummins Inc., and Detroit Diesel Corporation (a subsidiary of DaimlerChrysler AG).

Significant competition may also come from gas turbine companies like General Electric, Ingersoll-Rand Company Limited, Solar Turbines Incorporated and Kawasaki, which have recently made progress in improving fuel efficiency and reducing pollution in large-size combined cycle natural gas fueled generators. These companies have made efforts to extend these advantages to smaller sizes. We believe, however, that these smaller gas turbines will not be able to match our fuel efficiency or favorable environmental characteristics.

## MANUFACTURING AND COST REDUCTION

### Manufacturing Process

We have a 65,000 square foot manufacturing facility in Torrington, Connecticut where we produce our repeating fuel cell components: the anode and cathode electrodes, metallic bipolar plates and the electrolyte matrix. These stack components are combined and assembled into modules that are currently delivered to our test and conditioning facilities in Danbury, Connecticut and then shipped to customer sites for installation with an assembled BOP.

### Capacity and Production Ramp-up

Our overall manufacturing process (module manufacturing, final assembly, and test and conditioning) has a production capacity of 50 MW per year. We recently invested approximately \$3.5 million to double our MW-class conditioning capacity to 50 MW and expect to continue to invest in those processes required to increase the overall production capacity to 60 MW. The timing of this additional investment will be based on future order volume. We believe manufacturing capacity can be increased to 125-150 MW within our existing Torrington facility through the addition of parallel production lines and additional machinery. We also have additional land surrounding our Torrington facility, on which we may be able to expand to 400 MW of annual production of our repeating fuel cell components.

Expansion of our manufacturing facilities beyond 60 MW may require new facilities for the fuel cell stack and module assembly, and testing and conditioning, which could be deployed regionally. These regional assembly, test and

conditioning facilities are expected to provide additional cost savings from reductions in shipping costs, enhanced delivery times, and improved customer service.



During 2008, we ramped to an annualized production rate of approximately 30 MW in response to worldwide demand for our MW-class power plants. Actual production in fiscal 2008 was approximately 22 MW compared to approximately 11 MW in 2007. Future production volumes will be adjusted depending on customer demand.

#### Raw Materials and Supplier Relationships

We use various raw materials and components to construct a fuel cell module, including nickel and stainless steel, which are critical to our manufacturing process. In addition to manufacturing the fuel cell module in our Torrington facility, the electrical BOP and mechanical BOP are assembled by and procured from several key suppliers. All of our suppliers must undergo a qualification process, which takes four to twelve months. We continually evaluate new suppliers and are currently qualifying several new suppliers.

#### Cost Reduction

Reducing product cost is essential to our ability to further penetrate the market with our fuel cell power plants. Cost reductions will reduce and/or eliminate the need for incentive funding programs, allow our product pricing to compete with grid-delivered power and other distributed generation technologies, and are critical to attaining profitability.

We have reduced the cost of our MW-class power plants by approximately 85 percent since our 'proof-of-concept' 2 MW Santa Clara project in 1996-1997. In 2003, we implemented our commercial cost-out program, hiring additional engineers who focused on reducing the total life cycle costs of our power plants. Since 2003, we have made significant progress primarily through value engineering our products, technology improvements, and global sourcing.

In fiscal 2008, we completed the design of our newest multi-MW power plants that incorporate our second power increase for our MW-class products, increasing the output of our 300 kW fuel cell stack to 350 kW. We further reduced cost through improved component sourcing and raw materials pricing due to volume ordering and global sourcing. When these designs go into production in the fourth quarter of fiscal 2009, we expect them to be our first gross margin profitable units. We estimate continued increases in volume could result in an additional 10-20 percent cost reduction.

In 2008, we began manufacturing our first five-year stacks, representing a service cost reduction. Previously, estimated stack life was approximately three years.

#### SERVICE, CUSTOMER SATISFACTION AND LONG TERM SERVICE AGREEMENTS

Our service organization offers comprehensive service and maintenance programs including total fleet management, refurbishment and recycling services, and complete product support including spare parts inventory. The service organization's primary task is to maintain a high level of service for our end user customers during the warranty and service agreement periods of the original DFC equipment. To provide a wide range of services to support the fleet during the warranty period, we have developed a service infrastructure for those customers who enter into long-term service agreements (typically five years), which has allowed us to capture revenue as the units in the field increase and enter the period past the standard one-year warranty period.

Our services include a 24/7 call center and a web-based information system network that allows remote access to plant performance data. We have also established parts warehouses that include a rotatable pool of spare stacks in Connecticut and Asia. We have fully equipped regional field service teams, a stack repair/refurbishment center, and testing and conditioning facilities located in Connecticut. All personnel complete an operator and maintenance technician training program and work closely with the engineering and technology support organizations to service our products in the field. This infrastructure has enabled us to diagnose issues quickly and maintain high customer satisfaction.



We offer service agreements with a standard term of five years with flexible renewal options. Initial and renewal pricing for service contracts is based on the markets in which we compete as well as estimates of future costs. Under the standard provisions of these contracts, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Should the power plant not meet the minimum operating levels, we may be required to replace the fuel cell stack with a new or used replacement. Our contractual liability under service agreements is limited to the amount of service fees payable under the contract.

#### POWER PURCHASE AGREEMENTS

Power purchase agreements (PPAs) are a common arrangement in the energy industry, whereby a customer purchases energy from an owner and operator of the power generation equipment. A number of our partners enter into PPAs with end users such as Marubeni in Japan and Alliance Power in the U.S. After purchasing DFC power plants from us, they own and operate the units, and recognize revenue as energy is sold to the end user.

We have seeded the market with a few Company-funded PPAs to penetrate key target markets and develop operational and transactional experience. To date, we have funded the development and construction of certain fuel cell power plants sited near customers in California, and own and operate 3 MW of assets through PPA entities in which we have an 80 percent ownership interest. As we enter into multi-MW projects in the RPS markets with the benefit of the federal Investment Tax Credit and accelerated depreciation in the Energy Policy Act of 2005, we believe future PPAs will attract third party financing or ownership.

#### RESEARCH AND DEVELOPMENT

The goal of our research and development efforts is to improve our core DFC products and expand our technology portfolio in complementary high temperature fuel cell systems. In addition, we are also conducting development work on advanced applications for other fuel cell technologies, such as SOFC and PEM.

A portion of our research and development has been funded by government contracts and is classified as cost of research and development contracts in our consolidated financial statements. We also fund our own research and development projects including extending module life, increasing the power output of our modules and reducing the cost of our products. Research and development that is not funded under a government contract is included in research and development expenses in our consolidated financial statements. For the fiscal years ended 2008, 2007, and 2006, total research and development expenses, including amounts received from the Department of Energy (“DOE”), other government departments and agencies and our customers, and amounts that have been self-funded, were \$39.5 million, \$40.9 million, and \$35.0 million, respectively.

##### Government Research & Development Contracts

Since 1975, we have worked on the development of our DFC technology with various U.S. government departments and agencies, including the DOE, the Navy, Coast Guard, the Department of Defense, Environmental Protection Agency, Defense Advance Research Projects Agency and National Aeronautics and Space Administration. Government funding, principally from the DOE, provided approximately 18 percent, 33 percent, and 35 percent of our revenue for the fiscal years ended 2008, 2007, and 2006, respectively. From the inception of our carbonate fuel cell development program in the mid-1970s to date, more than \$536 million has been invested relating to government programs in support of the development of our DFC and related technologies.

Significant research and development programs we are currently working on include:

**Direct FuelCell/Turbine.** The DOE's Office of Fossil Energy established its Vision 21 Program in 1999 with the objective of developing a "21st Century Energy Plant" that can generate electricity, heat, and hydrogen from a variety of feedstocks such as fossil fuels and biomass with high efficiency and low environmental impact. Under this program, we were awarded a \$19.4 million cost-shared contract to develop a fuel cell/turbine hybrid power plant (DFC/T). In 2006 and 2007, we successfully demonstrated a sub-MW DFC/T power plant for 8,000 hours and achieved a 56 percent electrical efficiency. The conceptual design of a MW class DFC3000/T was completed in 2008.

The Connecticut Clean Energy Fund has recommended a project to the Department of Public Utility Control under Round 3 of Connecticut Project 150 that includes a DFC3000/T power plant. The final decision is scheduled for January 28, 2009.

**Co-production of Hydrogen and Electricity using DFC Power Plants.** Our high temperature DFC power plant produces hydrogen internally from hydrocarbon fuels, and then converts it to electricity. These DFC products are capable of co-production of electricity and hydrogen at potentially attractive costs. This value-added proposition is attractive for industrial users of hydrogen. It also provides a technology bridge to the hydrogen infrastructure being developed by DOE in our nation's bid for greater energy independence. A DOE-sponsored study performed by Air Products and Chemicals, Inc. (APCI), showed that a DFC300 power plant installed at a hydrogen refueling station for fuel cell vehicles can provide sufficient hydrogen to fuel a fleet of approximately 200 cars while providing enough electricity to power a community of 200 homes.

During 2005, we were selected by APCI to develop and demonstrate the next generation hydrogen energy station. The \$10 million cost-shared project, co-sponsored by DOE, APCI, and ourselves, integrates our ultra-clean DFC power plant and APCI's advanced gas separation technology to co-produce hydrogen and electricity at a vehicle refueling station from one single system, the "DFC/H2" operating on pipeline natural gas and renewable fuels such as biogas. Air Products estimates that the DFC/H2 system has the potential to be highly efficient and cost competitive with other conventional hydrogen production technologies. We are currently constructing a test system in advance of a field demonstration.

We are also developing an electrochemical hydrogen separator (EHS). Under sponsorship from Connecticut Clean Energy Fund, we designed and built a sub-scale (2 kW) EHS stack, and delivered it to the University of Connecticut for demonstration in February 2006 where it accumulated over six months of stable operation. Following this successful demonstration, we were awarded a \$1.2 million contract by U.S. Department of Defense to scale-up the EHS stack to the appropriate size for co-production of high purity hydrogen from our DFC300 power plants. In 2007 we were awarded an additional \$1.2 million to continue this program through in-house system testing. EHS provides an attractive alternative to mechanical separation technologies. Because it has no moving parts, it promises lower cost and the enhanced reliability needed for the hydrogen infrastructure.

**SECA and Large Scale Hybrid Programs** In 2008, we successfully completed the milestones for Phase I of the DOE's Solid State Energy Conversion Alliance ("SECA") Large Scale Hybrid Program. The goal of the program is to develop a multi-MW, highly efficient, central generation SOFC power plant operating on coal syngas. Phase I of the program was a two-year, \$32.3 million cost-shared program.

In December of 2008, the DOE accepted our \$21 million proposal for Phase II. The total program cost is \$30.2 million of which \$21 million will be funded by SECA. The program begins January 2009 and extends through September of 2010, and seeks to build a minimum 25 kW solid oxide fuel cell (SOFC) stack that meets certain performance requirements and cost targets as a manufactured product. The new stack will be integrated into a 250 kW to 1 MW fuel cell power module and a 5 MW proof-of-concept system operating on coal-based syngas (gas created from

reacting coal with steam and oxygen). The module and proof-of-concept system will be designed, fabricated and tested in subsequent phases.

The advanced fuel cell-hybrid system is expected to have an overall efficiency of at least 50 percent in converting energy contained in coal to ultra-clean grid electrical power. In contrast, today's average U.S. coal-based power plant has an electrical efficiency of approximately 33 percent. In addition, the envisioned SOFC-hybrid system is expected to separate 90 percent or more of the system's carbon dioxide emissions for capture and environmentally safe disposal while being cost competitive with other baseload power generating technologies. The DOE anticipates commissioning multi-MW, proof-of-concept, coal-based power plant systems in the 2012 time frame.

We utilize the cell and stack design of our technology team partner, Versa Power Systems Inc. (VPS), for all our SOFC development programs. VPS has been engaged in SOFC development since 1997 and is considered a world leader in SOFC cell and stack technology. We have been a prime contractor in the SECA program since 2003. WorleyParsons Group Inc. is another team member, providing engineering support for design of the solid oxide fuel cell power plants that run on syngas from coal.

## GOVERNMENT REGULATION

We presently are, and our fuel cell power plants will be, subject to various federal, state and local laws and regulations relating to, among other things, land use, safe working conditions, handling and disposal of hazardous and potentially hazardous substances and emissions of pollutants into the atmosphere. Emissions of SOX and NOX from our fuel cell power plants are much lower than conventional combustion-based generating stations, and are well within existing and proposed regulatory limits. The primary emissions from our DFC power plants, assuming no cogeneration application, are humid flue gas that is discharged at a temperature of approximately 700-800° F, water that is discharged at a temperature of approximately 10-20° F above ambient air temperatures, and carbon dioxide in per kWh amounts much less than conventional, fossil fuel, central generation power plants. In light of the high temperature of the gas emissions, we are required by regulatory authorities to site or configure our power plants in a way that will allow the gas to be vented at acceptable and safe distances. The discharge of water from our power plants requires permits that depend on whether the water is permitted to be discharged into a storm drain or into the local wastewater system. Lastly, as with any use of hydrocarbon fuel, the discharge of emissions must meet emissions standards. While our products have very low carbon monoxide emissions, there could be additional permitting requirements in smog non-attainment areas with respect to carbon monoxide if a number of our units are aggregated together.

We are also subject to federal, state, provincial or local regulation with respect to, among other things, emissions and siting. In addition, utility companies and several states have created and adopted or are in the process of creating interconnection regulations covering both technical and financial requirements for interconnection of fuel cell power plants to utility grids.

## PROPRIETARY RIGHTS AND LICENSED TECHNOLOGY

To compete in the marketplace, align effectively with business partners and protect our proprietary rights, we rely primarily on a combination of trade secrets, patents, confidentiality procedures and agreements and patent assignment agreements. In this regard, we have 57 current U.S. patents and 97 international patents covering our fuel cell technology (in certain cases covering the same technology in multiple jurisdictions). Fifty-six of the 57 U.S. patents relate to our Direct FuelCell technology. The remaining patent relates to PEM fuel cell technology. We also have submitted 38 U.S. and 168 international patent applications.

Our patents will expire between 2009 and 2027, and the current average remaining life of our patents is approximately 11.1 years. In 2008, seven new U.S. patents were issued or allowed (one more patent was allowed in November of 2008). In fiscal 2008, two U.S. patents expired and one was abandoned. The expiration of these patents has no material impact on our current or anticipated operations. We also have approximately 28 invention disclosures in

process with our patent counsel that may result in additional patent applications.

Many of our U.S. patents are the result of government-funded research and development programs, including a DOE cooperative agreement. One of our patents which resulted from government-funded research before January 1988 is owned by the U.S. government and has been licensed to us.

U.S. patents we own that resulted from government-funded research are subject to the government exercising “march-in” rights. We believe, however, that the likelihood of the U.S. government exercising these rights is remote and would only occur if we ceased our commercialization efforts and there was a compelling national need to use the patents.

We have also entered into certain license agreements through which we have obtained the rights to use technology developed under joint projects. Through these agreements we must make certain royalty payments on the sales of products that contain the licensed technology, subject to certain milestones and limitations.

We have two agreements with MTU Onsite Energy; a Cell License Agreement and a BOP License Agreement. Under our current Cell License Agreement, which extends through December 2009, we license our DFC technology to MTU Onsite Energy for use exclusively in Europe and the Middle East and non-exclusively in Africa and South America. We also sell our DFC components and stacks to MTU Onsite Energy under this agreement. Under the Cell License Agreement, MTU Onsite Energy also granted us an exclusive, royalty-free license to use any of their existing improvements to our Direct FuelCell that MTU Onsite Energy developed as of December 1999 under a previous license agreement. In addition, MTU Onsite Energy agreed to negotiate a license grant of any separate carbonate fuel cell know-how it developed during the term of the current Cell License once it was ready for commercialization. Under our BOP Cross Licensing and Cross-Selling Agreement, we sold MTU Onsite Energy MW-class modules and MTU Onsite Energy could sell their sub-MW class modules to us. Our BOP Cross Licensing and Cross-Selling Agreement with MTU Onsite Energy expired in July 2008.

## REVENUE AND BACKLOG

Our consolidated revenues for the years ended October 31, 2008, 2007 and 2006 were \$100.7 million, \$48.2 million and \$33.3 million, respectively. These consolidated revenues included product sales and revenues of \$82.7 million, \$32.5 million and \$21.5 million, respectively, and revenues from research and development contracts of \$18.0 million, \$15.7 million and \$11.8 million, respectively. Consolidated revenues from foreign locations were \$50.0 million, \$16.5 million and \$6.7 million, respectively, based on customer location.

Backlog refers to the aggregate revenues remaining to be earned at a specified date under contracts we have entered into. Revenue backlog is as follows:

- Product order backlog was approximately \$67.1 million and \$42.5 million as of October 31, 2008 and 2007, respectively, representing 32.5 MW and 15.6 MW as of October 31, 2008 and October 31, 2007, respectively. Product orders represent approximately 74 percent of our total funded backlog as of October 31, 2008. Backlog for long-term service agreements was approximately \$20.5 million and \$15.3 million as of October 31, 2008 and 2007, respectively. Although backlog reflects business that is considered firm, cancellations or scope adjustments may occur and will be reflected in our backlog when known.
- For research and development contracts, we include the total contract value including any unfunded portion of the total contract value in backlog. Research and development contract backlog was approximately \$4.8 million and \$18.5 million as of October 31, 2008 and 2007, respectively. The unfunded portion of our research and development contracts amounted to approximately \$1.1 million and \$9.2 million as of October 31, 2008 and 2007, respectively. Due to the long-term nature of these contracts, fluctuations from year to year are not an indication of any future trend.





As of October 31, 2008 we had contracts for power plants totaling 3 MW under power purchase agreements ranging from 5-10 years. Revenue under these agreements is recognized as electricity is produced. This revenue is not included in backlog.

#### EMPLOYEES

As of October 31, 2008 we had 534 full-time employees, of whom 225 were located at the Torrington, Connecticut manufacturing plant, and 309 were located at the Danbury, Connecticut facility or various field offices. None of our employees are represented by labor unions or covered by a collective bargaining agreement.

#### AVAILABLE INFORMATION

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, will be made available free of charge through the Investor Relations section of our Internet website (<http://www.fuelcellenergy.com>) as soon as practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission. Material contained on our website is not incorporated by reference in this report. Our executive offices are located at 3 Great Pasture Road, Danbury, CT 06813.

The public may also read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports and other information regarding issuers that file electronically with the SEC located at <http://www.sec.gov>.

## EXECUTIVE OFFICERS OF THE REGISTRANT

Our executive officers and their ages and positions are as follows:

NAME	AGE	PRINCIPAL OCCUPATION
R. Daniel Brdar President, Chief Executive Officer and Chairman of the Board of Directors	49	Mr. Brdar has been Chairman of the Board of Directors since January 2007, Chief Executive Officer since January 2006 and President since August 2005. Mr. Brdar, previously FuelCell Energy's Executive Vice President and Chief Operating Officer, joined the Company in 2000. Mr. Brdar held management positions at General Electric Power Systems from 1997 to 2000 where he focused on new product introduction programs and was product manager for its gas turbine technology. Mr. Brdar was Associate Director, Office of Power Systems Product Management at the U.S. Department of Energy where he held a variety of positions from 1988 to 1997 including directing the research, development and demonstration of advanced power systems including gas turbines, gasification systems and fuel cells. Mr. Brdar received a B.S. in Engineering from the University of Pittsburgh in 1981.
Christopher R. Bentley Executive Vice President, Government R&D Operations, Strategic Manufacturing Development	66	Mr. Bentley has been responsible for Government Research and Development Operations and Strategic Manufacturing Development since January of 2005. He joined the Company in 1990 to develop manufacturing and operations capability in support of the DFC commercialization initiative. He served on the Board of Directors from 1993 to 2004. Prior to joining the Company, he was Director of Manufacturing (1985), Vice-President and General Manager (1985-1988) and President (1989) of the Turbine Airfoils Division of Chromalloy Gas Turbine Corporation, a major manufacturer of gas turbine hardware. From 1960 to 1985 he was with the General Electric Company where he served a four-year apprenticeship and completed the GE Manufacturing Management Program prior to a series of increasingly responsible manufacturing positions. Mr. Bentley received a B.S. in Mechanical Engineering from Tufts University in 1966.
Bruce A. Ludemann Senior Vice President of Sales & Marketing	49	Mr. Ludemann joined the Company in April 2006. His responsibilities encompass all our business development activities across global markets. Prior to joining the Company, Mr. Ludemann had been a senior marketing and sales executive with Siemens for eight years, overseeing sales and marketing efforts for the

firm's Power Generation and Transmission & Distribution business units. Earlier, he was with ABB Power Transmission & Distribution Inc. for 13 years; the industrial control firm Square D; and Swiss electrical equipment manufacturer BBC Brown Boveri. He also served four years in the U.S. Navy specializing in electric power generation and distribution systems. Mr. Ludemann holds an Executive MBA from the University of Pittsburgh.

NAME	AGE	PRINCIPAL OCCUPATION
Joseph G. Mahler Senior Vice President, Chief Financial Officer, Corporate Secretary, Treasurer, Corporate Strategy	56	Mr. Mahler joined the Company in October 1998 as Vice President, Chief Financial Officer, Corporate Secretary, and Treasurer. Mr. Mahler's responsibilities include finance, accounting, corporate governance, strategy, treasury, information systems and human resources. Mr. Mahler was Vice President-Chief Financial Officer at Earthgro, Inc. from 1993 to 1998 and worked at Ernst & Young in the New York and Hartford offices from 1974 to 1992. He was a partner in the Hartford office's Entrepreneurial Services Group. Mr. Mahler received a B.S. in Accounting from Boston College in 1974.

## Item 1A. RISK FACTORS

You should carefully consider the following risk factors before making an investment decision. If any of the following risks actually occur, our business, financial condition, or results of operations could be materially and adversely affected. In such cases, the trading price of our common stock could decline, and you may lose all or part of your investment.

We have incurred losses and anticipate continued losses and negative cash flow.

We have been transitioning from a contract research and development company to a commercial products developer and manufacturer. As such, we have not been profitable since our fiscal year ended October 31, 1997. We expect to continue to incur net losses and generate negative cash flow until we can produce sufficient revenues to cover our costs. We may never become profitable. Even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future. For the reasons discussed in more detail below, there are substantial uncertainties associated with our achieving and sustaining profitability. We have, from time to time, sought financing in the public markets in order to fund operations. Our future ability to obtain such financing, if required, could be impaired by a variety of factors including the price of our common stock, the current global economic crisis and general market conditions.

Our cost reduction strategy may not succeed or may be significantly delayed, which may result in our inability to offer our products at competitive prices and may adversely affect our sales.

Our cost reduction strategy is based on the assumption that a significant increase in production will result in economies of scale. In addition, our cost reduction strategy relies on advancements in our manufacturing process, global competitive sourcing, engineering design and technology (including stack life and projected power output). Failure to achieve our cost reduction targets would have a material adverse effect on our commercialization plans and, therefore, our business, prospects, results of operations and financial condition.

Our products will compete with products using other energy sources, and if the prices of the alternative sources are lower than energy sources used by our products, sales of our products will be adversely affected. Volatility of electricity prices may impact sales of our products in the markets in which we compete.

Our Direct FuelCell® has been operated using a variety of hydrocarbon fuels, including natural gas, methanol, diesel, biogas, coal gas, coal mine methane, and propane. If these fuels are not readily available or if their prices increase such that electricity produced by our products costs more than electricity provided by other generation sources, our products would be less economically attractive to potential customers. In addition, we have no control over the prices of several types of competitive energy sources such as oil, gas or coal as well as local utility electricity costs. Significant decreases (or short term increases) in the price of these fuels or grid delivered prices for electricity could also have a material adverse effect on our business because other generation sources could be more economically attractive to consumers than our products.

The reduction or elimination of government subsidies and economic incentives for alternative energy technologies, including our fuel cell power plants, could reduce demand for our products, lead to a reduction in our revenues and adversely impact our operating results.

We believe that the near-term growth of alternative energy technologies, including our fuel cells, relies on the availability and size of government and economic incentives (including, but not limited to, the U.S. federal Investment Tax Credit and the incentive programs in South Korea and the state of California and state renewable portfolio standards programs). Many of these government incentives expire, phase out over time, exhaust the allocated

funding, or require renewal by the applicable authority. In addition, these incentive programs could be challenged by utility companies, or for other reasons found to be unconstitutional, and/or could be reduced or discontinued for other reasons. The reduction, elimination, or expiration of government subsidies and economic incentives may result in the diminished economic competitiveness of our power plants to our customers and could materially and adversely affect the growth of alternative energy technologies, including our fuel cells, as well as our future operating results.

Financial markets worldwide are currently in the midst of an unprecedented crisis which may have a material adverse impact on the Company, our customers and our suppliers.

Financial markets are in an unprecedented financial crisis worldwide, affecting both debt and equity markets, which has substantially limited the amount of financing available to all companies, including companies with substantially greater resources, better credit ratings and more successful operating histories than ours. It is impossible to predict how long this crisis will last or how it will be resolved and it may have a materially adverse affect on the Company for a number of reasons, such as:

- The long term nature of our sales cycle often requires long lead times between order booking and product fulfillment. For this, we often require substantial cash down payments in advance of delivery. Our growth strategy assumes that financing will be available for our customers to provide for such down payments and to pay for our products. The worldwide credit crisis may delay, cancel or restrict the construction budgets and funds available to our customers that we expect to be the ultimate purchasers of our products and services.
- Projects using our products are, in part, financed by equity investors interested in tax benefits as well as by the commercial and governmental debt markets. The recent significant declines in the US and international stock markets, coupled with the failure of several large financial institutions, has caused significant uncertainty and resulted in an increase in the return required by investors in relation to the risk of such projects. This in turn has increased the cost of capital to the point where new projects or projects in the early or planning stages may not receive funding or may have project delays or cancellations.

If we, or our customers and suppliers, cannot obtain financing under favorable terms during the current financial crisis or should the financial crisis worsen our business may be negatively impacted.

We have signed long-term service contracts and power purchase agreements with customers subject to market conditions and operating risks that may affect our operating results.

We have contracted with certain customers to provide service to fuel cell power plants over terms ranging from one to thirteen years. Under the provisions of these contracts, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Pricing for service contracts is based upon estimates of future costs, which given the early stage of development could be materially different from actual expenses. While we have conducted tests to determine the overall life of our products, we have not run our products over their projected useful life prior to large-scale commercialization. As a result, we cannot be sure that our products will last to their expected useful life, which could result in warranty claims and further losses on service contracts.

Under the terms of our power purchase agreements, customers agree to purchase power from our fuel cell power plants at negotiated rates, generally for periods of five to ten years. Electricity rates are generally a function of the customer's current and future electricity pricing available from the grid. Revenues are earned and collected under these PPAs as power is produced. As owner of the power plants in these PPA entities, we are responsible for all operating costs necessary to maintain, monitor and repair the power plants. Under certain agreements, we are also responsible for procuring fuel, generally natural gas, to run the power plants. Should electricity rates decrease or operating costs increase from our original estimates, our results of operations could be negatively impacted. We have qualified for incentive funding for these projects in California under the states' Self-Generation Incentive Funding Program (SGIP) and from other government programs. Funds are payable upon commercial installation and demonstration of the plant and may require return of the funds for failure of certain performance requirements. Revenue related to these incentive funds is recognized ratably over the performance period. We are not required to produce minimum amounts of power under our PPA agreements and we have the right to terminate PPA agreements by giving written notice to the customer, subject to certain exit costs.





We extend product warranties which could affect our operating results.

We warranty our products for a specific period of time against manufacturing or performance defects. As we have limited operating experience, warranty costs are currently expensed as incurred. As a result operating results could be negatively impacted should there be product manufacturing or performance defects.

We currently face and will continue to face significant competition.

Our Direct FuelCell® currently faces, and will continue to face, significant competition. We compete on the basis of our products' reliability, fuel efficiency, environmental considerations and cost. Technological advances in alternative energy products or improvements in the electric grid or other sources of power generation, or other fuel cell technologies may negatively affect the development or sale of some or all of our products or make our products non-competitive or obsolete prior to commercialization or afterwards. Other companies, some of which have substantially greater resources than ours, are currently engaged in the development of products and technologies that are similar to, or may be competitive with, our products and technologies.

Several companies in the U.S. are involved in fuel cell development, although we believe we are the only domestic company engaged in significant manufacturing and commercialization of carbonate fuel cells. Emerging fuel cell technologies (and companies developing them) include proton exchange membrane fuel cells (Ballard Power Systems, Inc.; United Technologies Corp. or UTC Power; and Plug Power), phosphoric acid fuel cells (UTC Power and Samsung Everland) and solid oxide fuel cells (Siemens Westinghouse Electric Company, General Electric, Delphi, Rolls Royce, Bloom Energy, and Acumentrics). Each of these competitors has the potential to capture market share in our target markets.

There are other potential carbonate fuel cell competitors internationally. In Europe, a company in Italy, Ansaldo Fuel Cells, is actively engaged in carbonate fuel cell development and is a potential competitor. Fuji Electric has been involved with both PEM and phosphoric acid fuel cells. In Korea, Doosan Corporation is engaged in carbonate fuel cell development.

Other than fuel cell developers, we must also compete with such companies as Caterpillar, Cummins, and Detroit Diesel, which manufacture more mature combustion-based equipment, including various engines and turbines, and have well-established manufacturing, distribution, and operating and cost features. Significant competition may also come from gas turbine companies like General Electric, Ingersoll Rand, Solar Turbines and Kawasaki, which have recently made progress in improving fuel efficiency and reducing pollution in large-size combined cycle natural gas fueled generators. These companies have also made efforts to extend these advantages to smaller sizes.

MTU Onsite Energy may develop competing technologies.

MTU Onsite Energy (formerly CFC Solutions GmbH) is currently developing carbonate fuel cell technology. If this technology does not use DFC know-how, MTU Onsite Energy must use good faith efforts to license the technology to us. If MTU Onsite Energy is successful but does not grant us a license, it may be directly competing with us while having a significant ownership interest in us, and a seat on our board of directors. We have agreed with MTU Onsite Energy to continue developing products with as much commonality as possible. However, the license agreement between us and MTU Onsite Energy provides that each of us retains the right to independently pursue the development of carbonate fuel cell technologies.

We have limited experience manufacturing our Direct FuelCell® products on a commercial basis, which may adversely affect our planned increases in production capacity and our ability to satisfy customer requirements.

We have limited experience manufacturing our Direct FuelCell® products on a commercial basis. Our overall manufacturing process (module manufacturing, final assembly, and test and conditioning) has a production capacity of 50 MW per year. We expect that we will further increase our manufacturing capacity based on market demand. We cannot be sure that we will be able to achieve any planned increases in production capacity. Also, as we scale up our production capacity, we cannot be sure that unplanned failures or other technical problems relating to the manufacturing process will not occur.

Even if we are successful in achieving our planned increases in production capacity, we cannot be sure that we will do so in time to meet our product commercialization schedule or to satisfy the requirements of our customers. Additionally, we cannot be sure that we will be able to develop efficient, low-cost manufacturing capabilities and processes (including automation) that will enable us to meet our cost goals and profitability projections. Our failure to develop advanced manufacturing capabilities and processes, or meet our cost goals, could have a material adverse effect on our business, prospects, results of operations and financial condition.

Unanticipated increases or decreases in business growth may result in adverse financial consequences for us.

If our business grows more quickly than we anticipate, our existing and planned manufacturing facilities may become inadequate and we may need to seek out new or additional space, at considerable cost to us. If our business does not grow as quickly as we expect, our existing and planned manufacturing facilities would, in part, represent excess capacity for which we may not recover the cost; in that circumstance, our revenues may be inadequate to support our committed costs and our planned growth, and our gross margins, and business strategy would be adversely affected.

Our plans are dependent on market acceptance of our Direct FuelCell® products.

Our plans are dependent upon market acceptance of, as well as enhancements to, those products. Fuel cell systems represent an emerging market, and we cannot be sure that potential customers will accept fuel cells as a replacement for traditional power sources. As is typical in a rapidly evolving industry, demand and market acceptance for recently introduced products and services are subject to a high level of uncertainty and risk. Since the distributed generation market is still evolving, it is difficult to predict with certainty the size of the market and its growth rate. The development of a market for our Direct FuelCell® products may be affected by many factors that are out of our control, including:

- the cost competitiveness of our fuel cell products;
- the future costs of natural gas and other fuels used by our fuel cell products;



- customer reluctance to try a new product;
- perceptions of the safety of our fuel cell products;
- the market for distributed generation;
- local permitting and environmental requirements; and
- the emergence of newer, more competitive technologies and products.

If a sufficient market fails to develop or develops more slowly than we anticipate, we may be unable to recover the losses we will have incurred in the development of Direct FuelCell® products and may never achieve profitability.

As we continue to commercialize our Direct FuelCell® products, we intend to continue to develop warranties, production guarantees and other terms and conditions relating to our products that will be acceptable to the marketplace, and continue to develop a service organization that will aid in servicing our products and obtain self-regulatory certifications, if available, with respect to our products. Failure to achieve any of these objectives may also slow the development of a sufficient market for our products and, therefore, have a material adverse effect on our financial results.

We are substantially dependent on a small number of customers and the loss of any one of these customers could adversely affect our business, financial condition and results of operations.

In fiscal 2008, 2007, and 2006, our top two customers accounted for 62%, 45%, and 47%, respectively of our total annual consolidated revenue. There can be no assurance that we will continue to achieve historical levels of sales of our products to our largest customers. Even though our customer base is expected to increase and our revenue streams to diversify, a substantial portion of net revenues could continue to depend on sales to a limited number of customers. Our agreements with these customers may be cancelled if we fail to meet certain product specifications or materially breach the agreement, and our customers may seek to renegotiate the terms of current agreements or renewals. The loss of, or a reduction in sales to, one or more of our larger customers could have a material adverse affect on our business, financial condition and results of operations.

Our government research and development contracts are subject to the risk of termination by the contracting party and we may not realize the full amounts allocated under the contracts due to the lack of Congressional appropriations.

A portion of our fuel cell revenues have been derived from long-term cooperative agreements and other contracts with the U.S. Department of Energy, the U.S. Department of Defense, the U.S. Navy, and other U.S. government agencies. These agreements are important to the continued development of our technology and our products.

Generally, our U.S. government research and development contracts are subject to the risk of termination at the convenience of the contracting agency. Furthermore, these contracts, irrespective of the amounts allocated by the contracting agency, are subject to annual Congressional appropriations and the results of government or agency sponsored reviews and audits of our cost reduction projections and efforts. We can only receive funds under these contracts ultimately made available to us annually by Congress as a result of the appropriations process. Accordingly, we cannot be sure whether we will receive the full amounts awarded under our government research and development or other contracts. Failure to receive the full amounts under any of our government research and development contracts could materially and adversely affect our business prospects, results of operations, and financial condition.



A negative government audit could result in an adverse adjustment of our revenue and costs and could result in civil and criminal penalties

Government agencies, such as the Defense Contract Audit Agency, routinely audit and investigate government contractors. These agencies review a contractor's performance under its contracts, cost structure, and compliance with applicable laws, regulations, and standards. If the agencies determine through these audits or reviews that we improperly allocated costs to specific contracts, they will not reimburse us for these costs. Therefore, an audit could result in adjustments to our revenue and costs.

Further, although we have internal controls in place to oversee our government contracts, no assurance can be given that these controls are sufficient to prevent isolated violations of applicable laws, regulations and standards. If the agencies determine that we or one of our subcontractors engaged in improper conduct, we may be subject to civil or criminal penalties and administrative sanctions, payments, fines, and suspension or prohibition from doing business with the government, any of which could materially affect our financial condition.

The U.S. government has certain rights relating to our intellectual property, including restricting or taking title to certain patents.

Many of our U.S. patents relating to our fuel cell technology are the result of government-funded research and development programs. One of our patents that was the result of DOE-funded research prior to January 1988 (the date that we qualified as a "small business") is owned by the U.S. government and has been licensed to us. This license is revocable only in the limited circumstances where it has been demonstrated that we are not making an effort to commercialize the invention. We own all patents resulting from research funded by our DOE contracts awarded after January 1988 to date, based on our "small business" status when each contract was awarded. Under current regulations, patents resulting from research funded by government agencies other than the DOE are owned by us, whether or not we are a "small business."

Ten U.S. patents that we own have resulted from government-funded research and are subject to the risk of exercise of "march-in" rights by the government. March-in rights refer to the right of the U.S. government or a government agency to exercise its non-exclusive, royalty-free, irrevocable worldwide license to any technology developed under contracts funded by the government if the contractor fails to continue to develop the technology. These "march-in" rights permit the U.S. government to take title to these patents and license the patented technology to third parties if the contractor fails to utilize the patents. In addition, our DOE-funded research and development agreements also require us to agree that we will not provide to a foreign entity any fuel cell technology subject to that agreement unless the fuel cell technology will be substantially manufactured in the U.S. Accordingly, we could lose some or all of the value of these patents.

A failure to qualify as a "small business" could adversely affect our rights to own future patents under DOE-funded contracts.

Qualifying as a "small business" under DOE contracts allows us to own the patents that we develop under DOE contracts. A "small business" under applicable government regulations generally consists of no more than 500 employees averaged over a one year period. If we continue to grow, we will no longer qualify as a "small business" and no longer own future patents we develop under future contracts, grants or cooperative agreements funded by the DOE based on such certification, unless we obtain a patent waiver from the DOE. Should we not obtain a patent waiver and outright ownership, we would nevertheless retain exclusive rights to any such patents, so long as we continue to commercialize the technology covered by the patents. As a result of our acquisition of Global Thermoelectric Inc. in November 2003, the number of our employees increased and therefore, we temporarily did not qualify as a "small business." Following the sale of Global Thermoelectric Inc. and its TEG product line on May 27, 2004, we again

qualified as a “small business”; however, we cannot assure you that we will continue to qualify as a “small business” in the future. We ended fiscal 2008 with a total of 534 full-time employees.



Our future success and growth is dependent on our distribution strategy.

We cannot assure you that we will enter into distributor relationships that are consistent with, or sufficient to support, our commercialization plans, and our growth strategy or that these relationships will be on terms favorable to us. Even if we enter into these types of relationships, we cannot assure you that the distributors with which we form relationships will focus adequate resources on selling our products or will be successful in selling them. Some of these distributor arrangements have or will require that we grant exclusive distribution rights to companies in defined territories. These exclusive arrangements could result in our being unable to enter into other arrangements at a time when the distributor with which we form a relationship is not successful in selling our products or has reduced its commitment to marketing our products. In addition, certain distributor arrangements include, and some future distributor arrangements may also include, the issuance of equity and warrants to purchase our equity, which may have an adverse affect on our stock price. To the extent we enter into distributor relationships, the failure of these distributors to assist us with the marketing and distribution of our products may adversely affect our results of operations and financial condition.

We cannot be sure that our original equipment manufacturers (“OEMs”) will manufacture or package products using our Direct FuelCell® components. Our success will largely depend upon our ability to make our products compatible with the power plant products of OEMs and the ability of these OEMs to sell their products containing our products. In addition, some OEMs may need to redesign or modify their existing power plant products to fully incorporate our products. Accordingly, any integration, design, manufacturing or marketing problems encountered by OEMs could adversely affect the market for our Direct FuelCell® products and, therefore, our business prospects, results of operations and financial condition.

We depend on third party suppliers for the development and supply of key raw materials and components for Direct FuelCell® products.

We use various raw materials and components to construct a fuel cell module, including nickel and stainless steel which are critical to our manufacturing process. We also rely on third-party suppliers for the balance-of-plant components in our Direct FuelCell® products. Suppliers must undergo a qualification process, which takes four to twelve months. We continually evaluate new suppliers and we are currently qualifying several new suppliers. There are a limited number of suppliers for some of the key components of Direct FuelCell® products. A supplier’s failure to develop and supply components in a timely manner, supply components that meet our quality, quantity or cost requirements, technical specifications, or our inability to obtain alternative sources of these components on a timely basis or on terms acceptable to us could harm our ability to manufacture our Direct FuelCell® products. In addition, to the extent the processes that our suppliers use to manufacture components are proprietary; we may be unable to obtain comparable components from alternative suppliers.

We do not know when or whether we will secure long-term supply relationships with any of our suppliers or whether such relationships will be on terms that will allow us to achieve our objectives. Our business, prospects, results of operations and financial condition could be harmed if we fail to secure long-term relationships with entities that will supply the required components for our Direct FuelCell® products.

We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our future growth and success.

Failure to protect our existing intellectual property rights may result in the loss of our exclusivity or the right to use our technologies. If we do not adequately ensure our freedom to use certain technology, we may have to pay others for rights to use their intellectual property, pay damages for infringement or misappropriation, or be enjoined from using such intellectual property. We rely on patent, trade secret, trademark and copyright law to protect our intellectual

property. The patents that we have obtained will expire between 2009 and 2027 and the average remaining life of our U.S. patents is approximately 11.1 years.

Some of our intellectual property is not covered by any patent or patent application and includes trade secrets and other know-how that is not patentable, particularly as it relates to our manufacturing processes and engineering design. In addition, some of our intellectual property includes technologies and processes that may be similar to the patented technologies and processes of third parties. If we are found to be infringing third-party patents, we do not know whether we will be able to obtain licenses to use such patents on acceptable terms, if at all. Our patent position is subject to complex factual and legal issues that may give rise to uncertainty as to the validity, scope, and enforceability of a particular patent. Accordingly, we cannot assure you that:

- any of the U.S., Canadian or foreign patents owned by us or other patents that third parties license to us will not be invalidated, circumvented, challenged, rendered unenforceable or licensed to others; or
- any of our pending or future patent applications will be issued with the breadth of claim coverage sought by us, if issued at all.

In addition, effective patent, trademark, copyright and trade secret protection may be unavailable, limited or not applied for in certain foreign countries.

We also seek to protect our proprietary intellectual property, including intellectual property that may not be patented or patentable, in part by confidentiality agreements and, if applicable, inventors' rights agreements with our subcontractors, vendors, suppliers, consultants, strategic partners and employees. We cannot assure you that these agreements will not be breached, that we 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. Certain of our intellectual property have been licensed to us on a non-exclusive basis from third parties that may also license such intellectual property to others, including our competitors. If our licensors are found to be infringing third-party patents, we do not know whether we will be able to obtain licenses to use the intellectual property licensed to us on acceptable terms, if at all.

If necessary or desirable, we may seek extensions of existing licenses or further licenses under the patents or other intellectual property rights of others. However, we can give no assurances that we will obtain such extensions or further licenses or that the terms of any offered licenses will be acceptable to us. The failure to obtain a license from a third party for intellectual property that we use at present could cause us to incur substantial liabilities, and to suspend the manufacture or shipment of products or our use of processes requiring the use of that intellectual property.

While we are not currently engaged in any intellectual property litigation, we could become subject to lawsuits in which it is alleged that we have infringed the intellectual property rights of others or commence lawsuits against others who we believe are infringing upon our rights. Our involvement in intellectual property litigation could result in significant expense to us, adversely affecting the development of sales of the challenged product or intellectual property and diverting the efforts of our technical and management personnel, whether or not that litigation is resolved in our favor.

Our future success will depend on our ability to attract and retain qualified management and technical personnel.

Our future success is substantially dependent on the continued services and on the performance of our executive officers and other key management, engineering, scientific, manufacturing and operating personnel, particularly R. Daniel Brdar, our Chief Executive Officer and Chairman of the Board of Directors. The loss of the services of any executive officer, including Mr. Brdar, or other key management, engineering, scientific, manufacturing and operating personnel, could materially adversely affect our business. Our ability to achieve our development and commercialization plans will also depend on our ability to attract and retain additional qualified management and technical personnel. Recruiting personnel for the fuel cell industry is competitive. We do not know whether we will be able to attract or retain additional qualified management and technical personnel. Our inability to attract and retain additional qualified management and technical personnel, or the departure of key employees, could materially and adversely affect our development and commercialization plans and, therefore, our business prospects, results of operations and financial condition.

Our management may be unable to manage rapid growth effectively.

We may rapidly expand our manufacturing capabilities, accelerate the commercialization of our products and enter a period of rapid growth, which will place a significant strain on our senior management team and our financial and other resources. Any expansion may expose us to increased competition, greater overhead, marketing and support costs and other risks associated with the commercialization of a new product. Our ability to manage rapid growth effectively will require us to continue to improve our operations, to improve our financial and management information systems and to train, motivate and manage our employees. Difficulties in effectively managing the budgeting, forecasting and other process control issues presented by such a rapid expansion could harm our business prospects, results of operations and financial condition.

We may be affected by environmental and other governmental regulation.

We are subject to federal, state, provincial, and local regulation with respect to, among other things, emissions and siting. Assuming no co-generation applications are used in conjunction with our Direct FuelCell® plants, they will discharge humid flue gas at temperatures of up to 800o F, water at temperatures of approximately 10-20 o F above surrounding air temperatures, and carbon dioxide.

In addition, it is possible that industry-specific laws and regulations will be adopted covering matters such as transmission scheduling, distribution, and the characteristics and quality of our products, including installation and servicing. These regulations could limit the growth in the use of carbonate fuel cell products, decrease the acceptance of fuel cells as a commercial product and increase our costs and, therefore, the price of our Direct FuelCell® products. Accordingly, compliance with existing or future laws and regulations could have a material adverse effect on our business prospects, results of operations and financial condition.

Utility companies could impose customer fees or interconnection requirements on our customers that could make our products less desirable.

Utility companies commonly charge fees to larger, industrial customers for disconnecting from the electric grid or for having the capacity to use power from the electric grid for back up purposes. These fees could increase the cost to our customers of using our Direct FuelCell® products and could make our products less desirable, thereby harming our business prospects, results of operations and financial condition.

Several states have created and adopted, or are in the process of creating, their own interconnection regulations covering both technical and financial requirements for interconnection to utility grids. Depending on the complexities of the requirements, installation of our systems may become burdened with additional costs that might have a negative

impact on our ability to sell systems. The Institute of Electrical and Electronics Engineers has been working to create an interconnection standard addressing the technical requirements for distributed generation to interconnect to utility grids. Many parties are hopeful that this standard will be adopted nationally to help reduce the barriers to deployment of distributed generation such as fuel cells; however this standard may not be adopted nationally thereby limiting the commercial prospects and profitability of our fuel cell systems.

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

Our business exposes us to the risk of harmful substances escaping into the environment, resulting in personal injury or loss of life, damage to or destruction of property, and natural resource damage. Depending on the nature of the claim, our current insurance policies may not adequately reimburse us for costs incurred in settling environmental damage claims, and in some instances, we may not be reimbursed at all. Our business is subject to numerous federal, state, and local laws and regulations that govern environmental protection and human health and safety. We believe that our businesses are operating in compliance in all material respects with applicable environmental laws, however these laws and regulations have changed frequently in the past and it is reasonable to expect additional and more stringent changes in the future.

Our operations may not comply with future laws and regulations and we may be required to make significant unanticipated capital and operating expenditures. If we fail to comply with applicable environmental laws and regulations, governmental authorities may seek to impose fines and penalties on us or to revoke or deny the issuance or renewal of operating permits and private parties may seek damages from us. Under those circumstances, we might be required to curtail or cease operations, conduct site remediation or other corrective action, or pay substantial damage claims.

We may be required to conduct environmental remediation activities, which could be expensive.

We are subject to a number of environmental laws and regulations, including those concerning the handling, treatment, storage and disposal of hazardous materials. These environmental laws generally impose liability on present and former owners and operators, transporters and generators for remediation of contaminated properties. We believe that our businesses are operating in compliance in all material respects with applicable environmental laws, many of which provide for substantial penalties for violations. We cannot assure you that future changes in such laws, interpretations of existing regulations or the discovery of currently unknown problems or conditions will not require substantial additional expenditures. Any noncompliance with these laws and regulations could subject us to material administrative, civil, or criminal penalties or other liabilities. In addition, we may be required to incur substantial costs to comply with current or future environmental and safety laws and regulations.

Our products use inherently dangerous, flammable fuels, operate at high temperatures and use corrosive carbonate material, each of which could subject our business to product liability claims.

Our business exposes us to potential product liability claims that are inherent in products that use hydrogen. Our products utilize fuels such as natural gas and convert these fuels internally to hydrogen that is used by our products to generate electricity. The fuels we use are combustible and may be toxic. In addition, our Direct FuelCell® products operate at high temperatures and our Direct FuelCell® products use corrosive carbonate material, which could expose us to potential liability claims. Although we have comprehensive safety, maintenance, and training programs in place and follow third party certification protocols, codes and standards, we cannot guarantee there will not be accidents. Any accidents involving our products or other hydrogen-using products could materially impede widespread market acceptance and demand for our Direct FuelCell® products. In addition, we might be held responsible for damages beyond the scope of our insurance coverage. We also cannot predict whether we will be able to maintain our insurance coverage on acceptable terms.

We are subject to risks inherent in international operations.

Since we market our Direct FuelCell® products both inside and outside the U.S. and Canada, our success depends, in part, on our ability to secure international customers and our ability to manufacture products that meet foreign regulatory and commercial requirements in target markets. Sales to customers located outside the U.S. accounted for approximately 50% of our consolidated revenue in fiscal 2008, 34% of our revenue in fiscal 2007, and 20% of our revenue in fiscal 2006. Sales to customers in Asia represent the majority of our international sales. We have limited experience developing and manufacturing our products to comply with the commercial and legal requirements of international markets. In addition, we are subject to tariff regulations and requirements for export licenses, particularly with respect to the export of some of our technologies. We face numerous challenges in our international expansion, including unexpected changes in regulatory requirements, fluctuations in currency exchange rates, longer accounts receivable requirements and collections, difficulties in managing international operations, potentially adverse tax consequences, restrictions on repatriation of earnings and the burdens of complying with a wide variety of international laws. Any of these factors could adversely affect our operations and revenues.

Our stock price has been and could remain volatile.

The market price for our common stock has been and may continue to be volatile and subject to extreme price and volume fluctuations in response to market and other factors, including the following, some of which are beyond our control:

- failure to meet our product development and commercialization milestones;
- variations in our quarterly operating results from the expectations of securities analysts or investors;
- downward revisions in securities analysts' estimates or changes in general market conditions;
- announcements of technological innovations or new products or services by us or our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel;
- investor perception of our industry or our prospects;
- insider selling or buying;
- demand for our common stock; and
- general technological or economic trends.

In the past, following periods of volatility in the market price of their stock, many companies have been the subjects of securities class action litigation. If we became involved in securities class action litigation in the future, it could result in substantial costs and diversion of management's attention and resources and could harm our stock price, business, prospects, results of operations and financial condition.

Provisions of Delaware and Connecticut law and of our charter and by-laws may make a takeover more difficult.

Provisions in our certificate of incorporation and by-laws and in Delaware and Connecticut corporate law may make it difficult and expensive for a third party to pursue a tender offer, change in control or takeover attempt that is opposed by our management and board of directors. Public stockholders who might desire to participate in such a transaction may not have an opportunity to do so. These anti-takeover provisions could substantially impede the ability of public stockholders to benefit from a change in control or change in our management and board of directors.



We depend on relationships with strategic partners, and the terms and enforceability of many of these relationships are not certain.

We have entered into relationships with strategic partners for design, product development and distribution of our existing products, and products under development, some of which may not have been documented by a definitive agreement. The terms and conditions of many of these agreements allow for termination by the partners. Termination of any of these agreements could adversely affect our ability to design, develop and distribute these products to the marketplace. We cannot assure you that we will be able to successfully negotiate and execute definitive agreements with any of these partners, and failure to do so may effectively terminate the relevant relationship.

Future sales of substantial amounts of our common stock could affect the market price of our common stock.

Future sales of substantial amounts of our common stock, or securities convertible or exchangeable into shares of our common stock, into the public market, including shares of our common stock issued upon exercise of options and warrants, or perceptions that those sales could occur, could adversely affect the prevailing market price of our common stock and our ability to raise capital in the future.

The rights of the Series 1 preferred shares and Series B preferred stock could negatively impact FuelCell.

The terms of the Series 1 preferred shares issued by FuelCell Energy, Ltd., our wholly-owned, indirect subsidiary, provide rights to the holder, Enbridge Inc. ("Enbridge"), including dividend and conversion rights among others that could negatively impact us. For example, the terms of the Series 1 preferred shares provide that the holders are entitled to receive cumulative dividends for each calendar quarter for so long as such shares are outstanding. Assuming the exchange rate for Canadian dollars is Cdn.\$84 to U.S.\$1.00 (exchange rate on January 9, 2009) at the time of the applicable dividend payment date, we are required to pay a preferred dividend of approximately \$262,500 per calendar quarter, subject to reduction in accordance with the terms of the Series 1 preferred shares. The terms of the Series 1 preferred shares also require that the holder be paid any accrued and unpaid dividends on December 31, 2010. To the extent that there is a significant amount of accrued dividends that is unpaid as of December 31, 2010 and we do not have sufficient working capital at that time to pay the accrued dividends, our financial condition could be adversely affected. As of October 31, 2008, cumulative unpaid dividends and accrued interest totaled approximately \$7.4 million on the Series 1 preferred shares. We have guaranteed these dividend obligations, including paying a minimum dividend of Cdn.\$500,000 in cash annually to Enbridge for so long as Enbridge holds the Series 1 preferred shares. We have also guaranteed the liquidation obligations of FuelCell Energy, Ltd. under the Series 1 preferred shares.

We are also required to issue common stock to the holder of the Series 1 preferred shares if and when the holder exercises its conversion rights. The number of shares of common stock that we may issue upon conversion could be significant and dilutive to our existing stockholders. For example, assuming the holder of the Series 1 preferred shares exercises its conversion rights after July 31, 2020 and assuming our common stock price is U.S. \$4.41 (our common stock closing price on January 9, 2009) and the exchange rate for Canadian dollars is Cdn. \$.84 to U.S. \$1.00 (exchange rate on January 9, 2009) at the time of conversion, we would be required to issue approximately 5,012,531 shares of our common stock.

The terms of the Series B preferred stock also provide rights to their holders that could negatively impact us. Holders of the Series B preferred stock are entitled to receive cumulative dividends at the rate of \$50 per share per year, payable either in cash or in shares of our common stock. To the extent the dividend is paid in shares, additional issuances could be dilutive to our existing stockholders and the sale of those shares could have a negative impact on the price of our common stock. A share of our Series B preferred stock may be converted at any time, at the option of the holder, into 85.1064 shares of our common stock (which is equivalent to an initial conversion price of \$11.75 per share), plus cash in lieu of fractional shares. Furthermore, the conversion rate applicable to the Series B preferred stock is subject to adjustment upon the occurrence of certain events.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud, which could harm our brand and operating results.

Effective internal controls are necessary for us to provide reliable and accurate financial reports and effectively prevent fraud. We have devoted significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes-Oxley Act of 2002. In addition, Section 404 under the Sarbanes-Oxley Act of 2002 requires that we assess, and that our auditors attest to, the design and operating effectiveness of our controls over financial reporting. Our compliance with the annual internal control report requirement for each fiscal year will depend on the effectiveness of our financial reporting and data systems and controls. Inferior internal controls could cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock and our access to capital.

Our results of operations could vary as a result of methods, estimates and judgments we use in applying our accounting policies.

The methods, estimates and judgments we use in applying our accounting policies have a significant impact on our results of operations (see “Critical Accounting Policies and Estimates” in Part II, Item 7 of this Form 10-K). Such methods, estimates and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time that leads us to change our methods, estimates and judgments. Changes in those methods, estimates and judgments could significantly affect our results of operations. Examples include:

The calculation of share-based compensation under SFAS 123R, requires us to use valuation methodologies that include a number of assumptions, estimates and conclusions regarding matters such as expected forfeitures, expected volatility of our share price, the expected dividend rate with respect to our common stock and the exercise behavior of our employees. Furthermore, there are no means, under applicable accounting principles, to compare and adjust our expense if and when we learn about additional information that may affect the estimates that we previously made with the exception of changes in expected forfeitures of share-based awards. Factors may arise over time that lead us to change our estimates and assumptions with respect to future share-based compensation arrangements, resulting in variability in our share-based compensation over time.

As our fuel cell products are in their initial stages of development and market acceptance, actual costs incurred could differ materially from those previously estimated. Once we have established that our fuel cell products have achieved commercial market acceptance and order backlog is comparable to our production capacity and future costs can be reasonably estimated, then estimated costs to complete an individual contract, in excess of revenue, will be accrued immediately upon identification.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Our headquarters are located in Danbury, Connecticut. The following is a summary of our offices and locations:

Location	Business Use	Square Footage	Lease Expiration Dates
Danbury, Connecticut	Corporation Headquarters, Research and Development, Sales, Marketing, Purchasing and Administration	72,000	Company owned
Torrington, Connecticut	Manufacturing	65,000	December 2015
Danbury, Connecticut	Manufacturing and Operations	38,000	October 2009

Item 3. LEGAL PROCEEDINGS

None.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None

## PART II

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

## FUELCELL COMMON STOCK

Our common stock has been publicly traded since June 25, 1992. From September 21, 1994 through February 25, 1997, it was quoted on the NASDAQ National Market, and from February 26, 1997 through June 6, 2000 it was traded on the American Stock Exchange. Our common stock has traded under the symbol "FCEL" on the Nasdaq Stock Market since June 7, 2000. The following table sets forth the high and low sale prices for our common stock for the fiscal periods indicated as reported by the Nasdaq Stock Market during the indicated quarters.

	Common Stock Price	
	High	Low
<b>Year Ended October 31, 2006</b>		
First Quarter	\$ 10.90	\$ 7.90
Second Quarter	\$ 15.00	\$ 9.22
Third Quarter	\$ 13.97	\$ 8.29
Fourth Quarter	\$ 9.90	\$ 6.59
<b>Year Ended October 31, 2007</b>		
First Quarter	\$ 7.37	\$ 5.84
Second Quarter	\$ 9.30	\$ 6.15
Third Quarter	\$ 8.40	\$ 6.30
Fourth Quarter	\$ 10.57	\$ 7.22
<b>Year Ended October 31, 2008</b>		
First Quarter	\$ 13.14	\$ 7.08
Second Quarter	\$ 9.24	\$ 5.43
Third Quarter	\$ 10.30	\$ 6.50
Fourth Quarter	\$ 8.83	\$ 3.10

On January 9, 2009, the closing price of our common stock on the Nasdaq Stock Market was \$4.41 per share. As of January 9, 2009, there were 666 holders of record of our common stock.

We have never paid a cash dividend on our common stock and do not anticipate paying any cash dividends on common stock in the foreseeable future. In addition, the terms of our Series B preferred shares prohibit the payment of dividends on our common stock unless all dividends on the Series B preferred stock have been paid in full.

## PERFORMANCE GRAPH

The following graph compares the annual change in the Company's cumulative total shareholder return on its Common Stock for the five fiscal years ended October 31, 2008 with the cumulative total return on the Russell 2000 and a peer group consisting of Standard Industry Classification ("SIC") Group Code 369 companies listed on The American Stock Exchange, Nasdaq Global Market and New York Stock Exchange for that period. It assumes \$100 invested on November 1, 2003 with dividends reinvested.



## SERIES 1 PREFERRED SHARES

On August 4, 2003, we entered into a combination agreement with Global Thermoelectric Inc. (“Global”) to combine Global with us in a share-for-share exchange pursuant to a Plan of Arrangement subject to approval by the Court of Queen’s Bench of Alberta, Canada. On October 31, 2003, our shareholders and the shareholders of Global approved the combination. On October 31, 2003, the Court of Queen’s Bench of Alberta issued an order approving the combination. On November 3, 2003, the combination transaction was consummated. In the aggregate, we issued approximately 8.2 million shares of our common stock and exchangeable shares in the acquisition. Following our acquisition of Global, Global’s Series 2 preferred shares remained outstanding in Global. At the time of the sale of our thermoelectric generator business, the holder of the Series 2 preferred shares exchanged them for Series 1 Class A cumulative redeemable exchangeable preferred shares (which were referred to as the Series 1 preferred shares) issued by FuelCell Energy, Ltd., one of our wholly-owned subsidiaries. We have guaranteed the obligations of FuelCell Energy, Ltd. under the Series 1 preferred shares.

The Series 1 preferred shares may be converted into shares of our common stock at the following conversion prices:

- Cdn.\$120.22 per share of our common stock until July 31, 2010;
- Cdn.\$129.46 per share of our common stock after July 31, 2010 until July 31, 2015;
- Cdn.\$138.71 per share of our common stock after July 31, 2015 until July 31, 2020; and
- at any time after July 31, 2020, the price equal to 95% of the then current market price (converted to Cdn.\$ at the time of such calculation) of shares of our common stock at the time of conversion.

The foregoing conversion prices are subject to adjustment for certain subsequent events. As illustrated below, the number of shares of our common stock issuable upon conversion of the Series 1 preferred shares after July 31, 2020 may be significantly greater than the number of shares issuable prior to that time.

The following examples illustrate the number of shares of our common stock that we will be required to issue to the holder(s) of the Series 1 preferred shares if and when the holder(s) exercise their conversion rights pursuant to the terms of the Series 1 preferred shares. The following examples are based upon Cdn.\$25.0 million of Series 1 preferred shares outstanding (which is the amount currently outstanding) and assume that all accrued dividends on the Series 1 preferred shares have been paid through the time of the conversion and, in the case of conversions occurring after July 31, 2020, that the exchange rate for Canadian dollars is Cdn.\$0.84 to U.S.\$1.00 (exchange rate on January 9, 2009) at the time of the conversion:

- if the Series 1 preferred shares convert prior to July 31, 2010, we would be required to issue approximately 207,952 shares of our common stock;
- if the Series 1 preferred shares convert after July 31, 2010, but prior to July 31, 2015, we would be required to issue approximately 193,110 shares of our common stock;
  - if the Series 1 preferred shares convert after July 31, 2015, but prior to July 31, 2020, we would be required to issue approximately 180,232 shares of our common stock; and
- if the Series 1 preferred shares convert any time after July 31, 2020, assuming our common stock price is U.S. \$4.41 (our common stock closing price on January 9, 2009) at the time of conversion, we would be required to issue approximately 5,012,531 shares of our common stock.

Subject to the Business Corporations Act (Alberta), the holder of the Series 1 preferred shares is not entitled to receive notice of or to attend or vote at any meeting of the FuelCell Energy, Ltd. common shareholders. At present, we own all of the FuelCell Energy, Ltd. common stock.

Quarterly dividends of Cdn.\$312,500 accrue on the Series 1 preferred shares (subject to possible reduction pursuant to the terms of the Series 1 preferred shares on account of increases in the price of our common stock). We have agreed to pay a minimum of Cdn.\$500,000 in cash or common stock annually to Enbridge, the sole current holder of the Series 1 preferred shares, as long as Enbridge holds the shares. Interest accrues on cumulative unpaid dividends at a 2.45% quarterly rate, compounded quarterly, until payment thereof. All cumulative unpaid dividends must be paid by December 31, 2010. Subsequent to 2010, FuelCell Energy, Ltd. would be required to pay annual dividend amounts totaling Cdn.\$1.25 million so long as the Series 1 Preferred shares remain outstanding. Using an exchange rate of Cdn.\$0.83 to U.S.\$1.00 (exchange rate on October 31, 2008), cumulative unpaid dividends and accrued interest of approximately \$7.4 million on the Series 1 preferred shares were outstanding as of October 31, 2008. We have guaranteed the dividend obligations of FuelCell Energy, Ltd. to the Series 1 preferred shareholders.

Subject to the Business Corporations Act (Alberta), we may redeem the Series 1 preferred shares, in whole or part, at any time, if on the day that the notice of redemption is first given, the volume-weighted average price at which our common stock is traded on the applicable stock exchange during the 20 consecutive trading days ending on a date not earlier than the fifth preceding day on which the notice of redemption is given was not less than a 20% premium to the current conversion price on payment of Cdn.\$25.00 per Series 1 Preferred Share to be redeemed, together with an amount equal to all accrued and unpaid dividends to the date fixed for redemption. On or after July 31, 2010, the Series 1 preferred shares are redeemable by us at any time on payment of Cdn.\$25.00 per Series 1 preferred share to be redeemed together with an amount equal to all accrued and unpaid dividends to the date fixed for redemption. Holders of the Series 1 preferred shares do not have any mandatory or conditional redemption rights. There are currently 1,000,000 Series 1 preferred shares outstanding.





In the event of the liquidation, dissolution or winding up of FuelCell Energy, Ltd., whether voluntary or involuntary, or any other distribution of its assets among its shareholders for the purpose of winding up its affairs, the holder of the Series 1 preferred shares will be entitled to receive the amount paid on such Series 1 preferred shares (currently Cdn.\$25.0 million) together with an amount equal to all accrued and unpaid dividends thereon, before any amount will be paid or any of FuelCell Energy, Ltd.'s property or assets will be distributed to the holders of FuelCell Energy, Ltd.'s common stock. After payment to the holder of the Series 1 preferred shares of the amounts payable to them, the holder of the Series 1 preferred shares will not be entitled to share in any other distribution of FuelCell Energy, Ltd.'s property or assets. We have guaranteed the liquidation obligations of FuelCell Energy, Ltd. under the Series 1 preferred shares.

## SERIES B PREFERRED SHARES

On November 11, 2004, we entered into a purchase agreement with Citigroup Global Markets Inc., RBC Capital Markets Corporation, Adams Harkness, Inc., and Lazard Freres & Co., LLC (the "Initial Purchasers") for the private placement under Rule 144A of up to 135,000 shares of our 5% Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000) ("Series B Preferred Stock"). On November 17, 2004 and January 25, 2005, we closed on the sale of 100,000 shares and 5,875 shares, respectively, of Series B Preferred Stock to the Initial Purchasers.

At October 31, 2008 and 2007, there were 250,000 authorized of which 64,120 were outstanding. The carrying value of the Series B Preferred Stock as of October 31, 2008 and 2007 represents the net proceeds to us of approximately \$60.0 million. During fiscal 2006, we converted 41,755 shares of Series B Preferred Stock (the "Shares") into 3,553,615 shares of our common stock. The conversion occurred pursuant to the terms of the Certificate of Designation for the Series B Preferred Stock, whereby upon conversion, the holders received 85.1064 shares of our common stock per share of Series B Preferred Stock. In addition, pursuant to this conversion, we paid a conversion premium of \$4.3 million.

The following is a summary of certain provisions of our Series B Preferred Stock. The resale of the shares of our Series B Preferred Stock and the resale of the shares of our common stock issuable upon conversion of the shares of our Series B Preferred Stock are covered by a registration rights agreement.

### Ranking

Shares of our Series B Preferred Stock rank with respect to dividend rights and rights upon our liquidation, winding up or dissolution:

- senior to shares of our common stock;
- junior to our debt obligations; and
- effectively junior to our subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

### Dividends

The Series B Preferred Stock pays cumulative annual dividends of \$50 per share which are payable quarterly in arrears on February 15, May 15, August 15 and November 15, which commenced on February 15, 2005, when, as and if declared by the board of directors. Dividends will be paid on the basis of a 360-day year consisting of twelve 30-day months. Dividends on the shares of our Series B Preferred Stock will accumulate and be cumulative from the date of original issuance. Accumulated dividends on the shares of our Series B preferred stock will not bear any interest.



The dividend rate on the Series B Preferred Stock is subject to upward adjustment as set forth in the certificate of designation of the Series B Preferred Stock if we fail to pay, or to set apart funds to pay, dividends on the shares of our Series B Preferred Stock for any quarterly dividend period. The dividend rate on the Series B Preferred Stock is also subject to upward adjustment as set forth in the registration rights agreement entered into with the Initial Purchasers if we fail to satisfy our registration obligations with respect to the Series B Preferred Shares (or the underlying common shares) set forth in the registration rights agreement.

No dividends or other distributions may be paid or set apart for payment upon our common shares (other than a dividend payable solely in shares of a like or junior ranking) unless all accumulated and unpaid dividends have been paid or funds or shares of common stock therefore have been set apart on our Series B Preferred Stock.

We may pay dividends on the Series B Preferred Stock:

- in cash; or
- at the option of the holder, in shares of our common stock, which will be registered pursuant to a registration statement to allow for the immediate sale of these common shares in the public market.

#### Liquidation

The Series B Preferred Stock has a liquidation preference of \$1,000 per share. Upon any voluntary or involuntary liquidation, dissolution or winding up of our company resulting in a distribution of assets to the holders of any class or series of our capital stock, each holder of shares of our Series B preferred stock will be entitled to payment out of our assets available for distribution of an amount equal to the liquidation preference per share of Series B Preferred Stock held by that holder, plus all accumulated and unpaid dividends on those shares to the date of that liquidation, dissolution, or winding up, before any distribution is made on any junior shares, including shares of our common stock, but after any distributions on any of our indebtedness or senior shares (if any). After payment in full of the liquidation preference and all accumulated and unpaid dividends to which holders of shares of our Series B preferred stock are entitled, holders of shares of our Series B preferred stock will not be entitled to any further participation in any distribution of our assets.

#### Conversion

A share of our Series B Preferred Stock may be converted at any time, at the option of the holder, into 85.1064 shares of our common stock (which is equivalent to an initial conversion price of \$11.75 per share) plus cash in lieu of fractional shares. The conversion rate is subject to adjustment upon the occurrence of certain events, as described below, but will not be adjusted for accumulated and unpaid dividends. Upon conversion, holders of Series B preferred stock will not receive a cash payment for any accumulated dividends. Instead accumulated dividends, if any, will be cancelled.

On or after November 20, 2009 we may, at our option, cause shares of our Series B Preferred Stock to be automatically converted into that number of shares of our common stock that are issuable at the then prevailing conversion rate. We may exercise our conversion right only if the closing price of our common stock exceeds 150% of the then prevailing conversion price for 20 trading days during any consecutive 30 trading day period, as described in the certificate of designation for the Series B preferred stock.

If holders of shares of our Series B Preferred Stock elect to convert their shares in connection with certain fundamental changes (as described below and in the certificate of designation), we will in certain circumstances discussed below increase the conversion rate by a number of additional shares of common stock upon conversion or, in lieu thereof, we may in certain circumstances elect to adjust the conversion rate and related conversion obligation

so that shares of our Series B preferred stock are converted into shares of the acquiring or surviving company, in each case as described in the certificate of designation.

The adjustment of the conversion price of the Series B Preferred Stock is to prevent dilution of the interests of the holders of the Series B Preferred Shares, including on account of the following:

- Issuances of common stock as a dividend or distribution to holders of our common stock;
  - Common stock share splits or share combinations;
- Issuances to holders of our common stock of any rights, warrants or options to purchase our common stock for a period of less than 60 days; and
  - Distributions of assets, evidences of indebtedness or other property to holders of our common stock.

Shares of our Series B Preferred Stock will not be redeemable by us, except in the case of a fundamental change (as described below and in the certificate of designation) whereby holders may require us to purchase all or part of their shares at a redemption price equal to 100% of the liquidation preference of the shares of Series B Preferred Stock to be repurchased, plus accrued and unpaid dividends, if any. We may, at our option, elect to pay the redemption price in cash or, in shares of our common stock valued at a discount of 5% from the market price of shares of our common stock, or any combination thereof. Notwithstanding the foregoing, we may only pay such redemption price in shares of our common stock that are registered under the Securities Act of 1933 and eligible for immediate sale in the public market by non-affiliates of the Company.

Redemption by holders of the Series B Preferred Stock can only occur upon a fundamental change, which the Company does not consider to be probable at this time. Accordingly, future adjustments of the redemption price will only be made if and when a fundamental change is considered probable.

A “fundamental change” will be deemed to have occurred if any of the following occurs:

(1) any "person" or "group" is or becomes the beneficial owner, directly or indirectly, of 50% or more of the total voting power of all classes of our capital stock then outstanding and normally entitled to vote in the election of directors;

(2) during any period of two consecutive years, individuals who at the beginning of such period constituted the Board of Directors (together with any new directors whose election by our Board of Directors or whose nomination for election by our shareholders was approved by a vote of two-thirds of our directors then still in office who were either directors at the beginning of such period or whose election or nomination for election was previously so approved) cease for any reason to constitute a majority of our directors then in office;

(3) the termination of trading of our common stock on the Nasdaq Stock Market and such shares are not approved for trading or quoted on any other U.S. securities exchange; or

(4) we consolidate with or merge with or into another person or another person merges with or into us or the sale, assignment, transfer, lease, conveyance or other disposition of all or substantially all of our assets and certain of our subsidiaries, taken as a whole, to another person and, in the case of any such merger or consolidation, our securities that are outstanding immediately prior to such transaction and which represent 100% of the aggregate voting power of our voting stock are changed into or exchanged for cash, securities or property, unless pursuant to the transaction such securities are changed into securities of the surviving person that represent, immediately after such transaction, at least a majority of the aggregate voting power of the voting stock of the surviving person.

Notwithstanding the foregoing, holders of shares of Series B Preferred Stock will not have the right to require us to repurchase their shares if either:

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the last reported sale price of shares of our common stock for any five trading days within the 10 consecutive trading days ending immediately before the later of the fundamental change or its announcement equaled or exceeded 105% of the conversion price of the shares of Series B Preferred Stock immediately before the fundamental change or announcement;

- at least 90% of the consideration, excluding cash payments for fractional shares and in respect of dissenters' appraisal rights, in the transaction constituting the fundamental change consists of shares of capital stock traded on a U.S. national securities exchange or which will be so traded or quoted when issued or exchanged in connection with a fundamental change and as a result of the transaction, shares of Series B Preferred Stock become convertible into such publicly traded securities; or
- in the case of number 4 above of a fundamental change event, the transaction is effected solely to change our jurisdiction of incorporation.

## Voting

Holders of shares of our Series B Preferred Stock have no voting rights unless (1) dividends on any shares of our Series B Preferred Stock or any other class or series of stock ranking on a parity with the shares of our Series B Preferred Stock with respect to the payment of dividends shall be in arrears for dividend periods, whether or not consecutive, containing in the aggregate a number of days equivalent to six calendar quarters or (2) we fail to pay the repurchase price, plus accrued and unpaid dividends, if any, on the fundamental change repurchase date for shares of our Series B Preferred Stock following a fundamental change (as described in the certificate of designation for the Series B Preferred Stock). In each such case, the holders of shares of our Series B Preferred Stock (voting separately as a class with all other series of other Preferred Stock on parity with our Series B Preferred Stock upon which like voting rights have been conferred and are exercisable, if any) will be entitled to vote for the election of two directors in addition to those directors on the board of directors at such time at the next annual meeting of shareholders and each subsequent meeting until the repurchase price or all dividends accumulated on the shares of our Series B Preferred Stock have been fully paid or set aside for payment. The term of office of all directors elected by the holders of shares of our Series B Preferred Stock will terminate immediately upon the termination of the right of holders of shares of our Series B Preferred Stock to vote for directors.

So long as any shares of our Series B Preferred Stock remain outstanding, we will not, without the consent of the holders of at least two-thirds of the shares of our Series B Preferred Stock outstanding at the time (voting separately as a class with all other series of Preferred Stock, if any, on parity with our Series B Preferred Stock upon which like voting rights have been conferred and are exercisable) issue or increase the authorized amount of any class or series of shares ranking senior to the outstanding shares of our Series B Preferred Stock as to dividends or upon liquidation. In addition, we will not, subject to certain conditions, amend, alter or repeal provisions of our certificate of incorporation, including the certificate of designation relating to our Series B Preferred Stock, whether by merger, consolidation or otherwise, so as to adversely amend, alter or affect any power, preference or special right of the outstanding shares of our Series B Preferred Stock or the holders thereof without the affirmative vote of not less than two-thirds of the issued and outstanding shares of our Series B Preferred Stock.

## UNREGISTERED SECURITIES

There were no unregistered securities issued during the twelve months ended October 31, 2008.

## Item 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below as of the end of each of the years in the five-year period ended October 31, 2008 have been derived from our audited consolidated financial statements together with the notes thereto included elsewhere in this Report (the “Financial Statements”). The data set forth below is qualified by reference to, and should be read in conjunction with, the Financial Statements and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this Report.

(Amounts presented in thousands, except for per share amounts)

## Consolidated Statement of Operations Data:

	Year Ended October 31,				
	2008	2007	2006	2005	2004
<b>Revenues:</b>					
Product sales and revenue	\$ 82,748	\$ 32,517	\$ 21,514	\$ 17,398	\$ 12,636
Research and development contracts	17,987	15,717	11,774	12,972	18,750
Total revenues	100,735	48,234	33,288	30,370	31,386
<b>Costs and expenses:</b>					
Cost of product sales and revenues	134,038	61,827	61,526	52,067	39,961
Cost of research and development contracts	16,059	13,438	10,330	13,183	27,290
Administrative and selling expenses	19,968	18,625	17,759	14,154	14,901
Research and development expenses	23,471	27,489	24,714	21,840	26,677
Purchased in-process research and development	—	—	—	—	12,200
Total costs and expenses	193,536	121,379	114,329	101,244	121,029
Loss from operations	(92,801)	(73,145)	(81,041)	(70,874)	(89,643)
License fee income, net	—	34	42	70	19
Interest expense	(100)	(84)	(103)	(103)	(137)
Loss from equity investments	(1,867)	(1,263)	(828)	(1,553)	—
Interest and other income, net	3,268	7,437	5,718	5,526	2,472
Redeemable minority interest	(1,857)	(1,653)	107	—	—
Provision for taxes	—	—	—	—	—
Loss from continuing operations	(93,357)	(68,674)	(76,105)	(66,934)	(87,289)
Discontinued operations, net of tax	—	—	—	(1,252)	846
Net loss	(93,357)	(68,674)	(76,105)	(68,186)	(86,443)
Preferred stock dividends	(3,208)	(3,208)	(8,117)	(6,077)	(964)
Net loss to common shareholders	\$ (96,565)	\$ (71,882)	\$ (84,222)	\$ (74,263)	\$ (87,407)



Basic and diluted loss per share:										
Continuing operations	\$	(1.41)	\$	(1.16)	\$	(1.65)	\$	(1.51)	\$	(1.84)
Discontinued operations		—		—		—		(.03)		0.01
Net loss to common shareholders	\$	(1.41)	\$	(1.16)	\$	(1.65)	\$	(1.54)	\$	(1.83)
Basic and diluted weighted average shares Outstanding		68,571		61,991		51,047		48,261		47,875

## Consolidated Balance Sheet Data:

	As of October 31,				
	2008	2007	2006	2005	2004
Cash, cash equivalents and short term investments					
(U.S. treasury securities)	\$ 68,449	\$ 153,631	\$ 107,533	\$ 136,032	\$ 152,395
Working capital	59,606	158,687	104,307	140,736	156,798
Total current assets	118,020	201,005	133,709	161,894	178,866
Long-term investments					
(U.S. treasury securities)	18,434	—	13,054	43,928	—
Total assets	185,476	253,188	206,652	265,520	236,510
Total current liabilities	58,414	42,318	29,402	21,158	22,070
Total non-current liabilities	6,747	5,014	5,840	2,892	1,476
Redeemable minority interest	13,307	11,884	10,665	11,517	10,259
Redeemable preferred stock	59,950	59,950	59,950	98,989	—
Total shareholders' equity	47,058	134,022	100,795	130,964	202,705
Book value per share(1)	\$ 0.68	\$ 1.97	\$ 1.90	\$ 2.70	\$ 4.21

(1) Calculated as total shareholders' equity divided by common shares issued and outstanding as of the balance sheet date.

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

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is provided as a supplement to the accompanying financial statements and footnotes to help provide an understanding of our financial condition, changes in our financial condition and results of operations. The MD&A is organized as follows:

**Caution concerning forward-looking statements.** This section discusses how certain forward-looking statements made by us throughout the MD&A are based on management's present expectations about future events and are inherently susceptible to uncertainty and changes in circumstances.

**Overview and recent developments.** This section provides a general description of our business. We also briefly summarize any significant events occurring subsequent to the close of the reporting period.

**Critical accounting policies and estimates.** This section discusses those accounting policies and estimates that are both considered important to our financial condition and operating results and require significant judgment and estimates on the part of management in their application.

**Results of operations.** This section provides an analysis of our results of operations for the years ended October 31, 2008, 2007 and 2006. In addition, a description is provided of transactions and events that impact the comparability of the results being analyzed.

**Liquidity and capital resources.** This section provides an analysis of our cash position and cash flows.

**Recent accounting pronouncements.** This section summarizes recent accounting pronouncements and their impact on the Company.

### CAUTION CONCERNING FORWARD-LOOKING STATEMENTS

The following discussion should be read in conjunction with the accompanying Consolidated Financial Statements and Notes thereto included within this report. In addition to historical information, this Form 10-K, including the following discussion, contains forward-looking statements. All forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Factors that could cause such a difference include, without limitation, the risk that commercial field trials of the Company's products will not occur when anticipated, general risks associated with product development, manufacturing, changes in the utility regulatory environment, potential volatility of energy prices, rapid technological change, competition, and the Company's ability to achieve its sales plans and cost reduction targets, as well as other risks set forth in our filings with the Securities and Exchange Commission including those set forth under the caption "Risk Factors" in this report.

## OVERVIEW AND RECENT DEVELOPMENTS

### Overview

FuelCell Energy, Inc. (“FuelCell Energy” or “Company”) is a world leader in the development and manufacture of fuel cell power plants for ultra-clean, efficient and reliable electric power generation. Our products are designed to meet the 24/7 baseload power needs of commercial, industrial, government and utility customers. Our products have generated over 260 million kWh of electricity and are operating at over 50 locations around the world.

Our Company was founded in 1969. Our core fuel cell products (“Direct FuelCell®” or “DFC® Power Plants”) offer stationary power generation applications for customers. In addition to our commercial products, we continue to develop our next generation of carbonate fuel cells and planar solid oxide fuel cell (“SOFC”) technology with our own and government research and development funds.

Our proprietary carbonate DFC power plants electrochemically (without combustion) produce electricity directly from readily available hydrocarbon fuels such as natural gas and biogas. Customers buy fuel cells to reduce cost and pollution, and improve power reliability. Electric generation without combustion significantly reduces harmful pollutants such as NOX and particulates. Higher fuel efficiency results in lower emissions of carbon dioxide (“CO2”), a major component of harmful greenhouse gases, and also results in less fuel needed per kWh of electricity generated and Btu of heat produced. Greater efficiency reduces customers’ exposure to volatile fuel costs and minimizes operating costs. Our fuel cells operate 24/7 providing reliable power to both on-site customers and for grid-support applications.

Compared to other power generation technologies, our products offer significant advantages including:

- Virtually zero emissions, quiet operation
- High fuel efficiency
- Reliable, 24/7 baseload power
- Ability to site units locally as distributed power generation
- Potentially lower cost power generation
- Byproduct heat ideal for cogeneration applications.

Typical customers for our products include manufacturers, mission critical institutions such as correction facilities and government installations, hotels, and customers who can use renewable gas for fuel such as breweries, food processors and wastewater treatment facilities. Our MW-class products are also used as grid support applications for utility customers. With increasing demand for renewable and ultra-clean power options and increased volatility in electric markets, our customers gain control of power generation economics, reliability, and emissions. Our fuel cells also offer flexible siting, easy permitting, and the ability to use multiple fuels.

Our DFC power plants are protected by 56 U.S. and 97 international patents and we have also submitted 38 U.S. and 168 international patent applications.

### Recent Developments

#### Fiscal 2008 Commercial Power Plant Orders

During the fiscal year, the following product sales orders were received by the Company:

- In April 2008, POSCO Power ordered 25.6 MW of MW-class power plants and fuel cell modules, valued at approximately \$70.0 million, for delivery in 2009. Initially we will ship complete power plants to POSCO

Power. In 2009, we will begin to ship fuel cell modules, together with complete sets of BOP components. POSCON (a POSCO affiliated company) will do the BOP assembly with our technical support. In the second half of 2009, we will begin to ship fuel cell modules only, and POSCO will be responsible for procurement and manufacturing of all BOP components.

- In February 2008, MTU Onsite Energy ordered stack components totaling approximately 0.8 MW.
- In December 2007, Eastern Municipal Water District (EMWD) in southern California ordered three DFC300 power plants (0.75 MW) to provide power for its wastewater operations.
  - In December 2007, POSCO Power ordered two DFC3000 power plants (4.8 MW).
- In December 2007, we entered into a contract with the The Linde Group (Linde) for a 3.9 MW power plant project in San Diego, CA. In July of 2008, the Company entered into a contract change order with Linde which adjusted scheduled power plant deliveries beyond 2008. At that time this project was removed from the Company's reported backlog. In January 2009, due to changes in business conditions, Linde cancelled this contract. Linde has been engaged in discussions with several third parties who have expressed interest in moving this project forward independent of Linde.

#### Government Research and Development Contracts

In December 2008, subsequent to the Company's fiscal year end, FuelCell Energy was awarded a contract for Phase II of the U.S. Department of Energy's (DOE) Office of Fossil Energy Solid State Energy Conversion Alliance (SECA) Coal-Based Systems Cooperative Agreement. The total cost of this phase of the program is \$30.2 million of which \$21 million will be funded by the DOE. The first \$5 million of the program has been funded and will be paid as expenses are billed to the government.

Phase II extends from January 2009 through September 2010 and seeks to build a minimum 25 kW solid oxide fuel cell (SOFC) stack that meets certain cost and performance requirements. The new stack must be suitable for integration into a 250 kW - 1 MW fuel cell power module and a 5 MW proof-of-concept system operating on coal-based syngas (gas created from reacting coal with high temperature coal or steam). The module and proof-of-concept system will be designed, fabricated, and tested in subsequent phases.

#### Connecticut Project 150 Program

Under Connecticut's Project 150 Round 2, the Department of Public Utility Control ("DPUC") finalized the selection of three projects that will use 16.2 MW of FuelCell Energy power plants. Energy purchase agreements between the project developers and the utilities have been completed. With the extension of the U.S. Investment Tax Credit ("ITC") to 2016, we are in the process of finalizing power plant sales contracts for these projects, which include:

- A 9.0 MW DFC-ERG system will be located at a natural gas letdown station in Milford, Conn. The system will generate heat and electricity required for the station's management of the natural gas pipeline resulting in an electrical efficiency of approximately 60 percent.
  - Two projects at Connecticut hospitals, a 4.8 MW DFC power plant for Stamford Hospital and a 2.4 MW power plant at Waterbury Hospital. The hospitals will use the byproduct heat generated by our power plants for heating, air conditioning, laundries and sterilization, and achieve system efficiencies of approximately 60 percent.

Under Round 3 of the Project 150 Program, Connecticut's Clean Energy Fund recommended five projects totaling 27.3 MW that utilize FuelCell Energy power plants for selection to receive long-term energy purchase agreements from the state's utilities. The projects included three DFC-ERG power plants, a Direct FuelCell/Turbine (DFC/T), and a large-scale 15 MW project. The DFC-ERG and DFC/T products can achieve electrical efficiencies of up to 60 percent, approximately twice that of the average U.S. fossil fuel plant and most other distributed energy generation. A final decision is expected from the DPUC in January 2009.



### Manufacturing Production and Capacity Expansion

In mid 2008, we ramped to an annualized production rate of approximately 30MW in response to worldwide demand for the Company's MW-class power plants. Actual production in fiscal 2008 was approximately 22 MW and in was approximately 11 MW in 2007.

In order to satisfy the growing demand for our MW-class products, we recently invested approximately \$3.5 million to double our MW-class conditioning capacity to 50 MW. The additional conditioning equipment is now installed at our Danbury, CT facility and ready for production. This was part of our planned expenditures to bring our total production capacity up to 60 MW per year. Through continued process improvements in our manufacturing, we are also able to reduce the total capital needed for our first capacity expansion by several million dollars. To ensure our production capacity is aligned with our backlog, expansion beyond our current capacity will be paced by order flow. In connection with our expansion, the Connecticut Development Authority approved a \$4.0 million loan to expand the Company's Torrington, Connecticut manufacturing facility, expand its workforce, and extend its Torrington facility lease through 2015. This loan closed in April 2008. At October 31, 2008, we had an outstanding balance of \$3.6 million.

### Federal Investment Tax Credit

In October 2008, the U.S. Congress extended the ITC for eight years to 2016 and increased it to \$3,000 per kW or 30 percent, whichever is less, for fuel cells. This is expected to have a favorable impact by allowing developers to move forward on fuel cell projects knowing that the ITC will be available.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

### Revenue Recognition and Cost of Sales

We contract with our customers to perform research and development, manufacture and install fuel cell components and power plants under long-term contracts, and provide services under contract. We recognize revenue on a method similar to the percentage-of-completion method.

Revenues on fuel cell research and development contracts are recognized proportionally as costs are incurred and compared to the estimated total research and development costs for each contract. In many cases, we are reimbursed only a portion of the costs incurred or to be incurred on the contract. Revenues from government funded research, development and demonstration programs are generally multi-year, cost reimbursement and/or cost shared type contracts or cooperative agreements. We are reimbursed for reasonable and allocable costs up to the reimbursement limits set by the contract or cooperative agreement.

While government research and development contracts may extend for many years, funding is often provided incrementally on a year-by-year basis if contract terms are met and Congress has authorized the funds. As of October 31, 2008 research and development sales backlog totaled \$4.8 million, of which 78 percent is funded. Should funding be temporarily delayed or if business initiatives change, we may choose to devote resources to other activities, including internally funded research and development.



Product sales and revenues include revenues from power plant sales, service contracts, electricity sales under power purchase agreements (“PPAs”), incentive funding and power plant site engineering and construction related costs for certain contracts. Revenues from power plant sales are recognized proportionally as costs are incurred and assigned to a customer contract by comparing the estimated total manufacture and installation costs for each contract to the total contract value. Revenues from service contracts are generally recognized ratably over the contract. For service contracts that include a fuel cell stack replacement, a portion of the total contract value is recognized as revenue at the time of the stack replacement and the remainder of the contract value is recognized ratably over the contract. Revenues from electricity sales under power purchase agreements are recognized as power is produced. Revenues from incentive funding are recognized ratably over the term of the incentive funding agreement. Revenues related to site engineering and construction are recognized as costs are incurred.

As our fuel cell products are in their initial stages of development and market acceptance, we have not historically provided for a loss reserve estimate on product or service contracts. As of October 31, 2008, our order backlog was approximately 32.5 MW (\$67.1 million) and our current production capacity is approximately 50 MW. Our service agreement backlog totaled \$20.5 million as of October 31, 2008. Once we have established that our fuel cell products have achieved commercial market acceptance and order backlog is comparable to our production capacity and future costs and product life can be reasonably estimated, then estimated costs to complete an individual contract, in excess of revenue, will be accrued immediately upon identification.

#### Inventories

During the procurement and manufacturing process of a fuel cell power plant, costs for material, labor and overhead are accumulated in raw materials and work-in-process inventory until they are transferred to a customer contract, at which time they are recorded in cost of sales.

Our inventories and advance payments to vendors are stated at the lower of cost or market price. As we currently sell products at or below cost, we provide for a lower of cost or market (“LCM”) adjustment to the cost basis of inventory and advances to vendors. This adjustment is computed by comparing the current sales prices of our power plants to estimated costs of completed power plants. In certain circumstances, for long-lead time items, we will make advance payments to vendors for future inventory deliveries, which are recorded as a component of other current assets on the consolidated balance sheet.

As of October 31, 2008 and October 31, 2007, the LCM adjustment to the cost basis of inventory and advance payments to vendors was approximately \$12.4 million and \$16.8 million, respectively, which equates to a reduction of approximately 30 and 33 percent, respectively, of the gross inventory and advance payments to vendors value. As of October 31, 2008, our gross inventory and advances to vendors’ balances decreased from the October 31, 2007 balances which resulted in lower gross reserve balances. As inventory levels increase or decrease, appropriate adjustments to the cost basis are made.

#### Internal Research and Development Expenses

We conduct internally funded research and development activities to improve current or anticipated product performance and reduce product life-cycle costs. These costs are classified as research and development expenses on our Consolidated Statements of Operations.

#### Share-Based Compensation

Share-based payment transactions with employees, which primarily consist of stock options and third parties, are accounted for in accordance with Statement of Financial Accounting Standard No. 123R, “Share-Based Payments”,

which requires the application of a fair value methodology that involves various assumptions. The fair value of our options awarded to employees is estimated on the date of grant using the Black-Scholes option valuation model that uses the following assumptions: expected life of the option, risk-free interest rate, expected volatility of our common stock price and expected dividend yield. We estimate the expected life of the options using historical data and the volatility of our common stock is estimated based on a combination of the historical volatility and the implied volatility from traded options. Share-based compensation of \$5.5 million and \$5.2 million were recognized in the Consolidated Statement of Operations for the fiscal years ended October 31, 2008 and 2007, respectively. Refer to Note 13 of the consolidated financial statements for additional information.

## Income Taxes

The liability method of SFAS No. 109, Accounting for Income Taxes, is used to account for income taxes. Deferred tax assets and liabilities are determined based on net operating loss carryforwards, research and development credit carryforwards, and differences between financial reporting and income tax bases of assets and liabilities. Deferred items are measured using the enacted tax rates and laws that are expected to be in effect when the differences reverse. Deferred tax assets are reduced by a valuation allowance to reflect the uncertainty associated with their ultimate realization. Any subsequently recognized tax benefits relating to the valuation allowance for deferred tax assets would be recorded as an income tax benefit in the Statement of Operations or a credit to Additional Paid-In Capital.

As of November 1, 2007, we adopted FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes – an interpretation of FASB Statement No. 109 (“FIN 48”). FIN 48 prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that the company has taken or expects to take on a tax return (including a decision whether to file or not file a return in a particular jurisdiction).

The evaluation of a tax position in accordance with FIN 48 is a two-step process. The first step is recognition: The enterprise determines whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The second step is measurement: A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement.

We have not paid federal or state income taxes in several years due to our history of net operating losses.

## RESULTS OF OPERATIONS

Management evaluates the results of operations and cash flows using a variety of key performance indicators. Indicators that management uses include revenues compared to prior periods, costs of our products and results of our “cost-out” initiatives, and operating cash use. These are discussed throughout the ‘Results of Operations’ and ‘Liquidity and Capital Resources’ sections.

## Comparison of the Years Ended October 31, 2008 and October 31, 2007

## Revenues and costs of revenues

The following tables summarize our revenue and cost of revenues for the years ended October 31, 2008 and 2007 (dollar amounts in thousands), respectively:

	Year Ended October 31, 2008		Year Ended October 31, 2007		Percentage Increase in
	Revenues	Percent of Revenues	Revenues	Percent of Revenues	Revenues
<b>Revenues:</b>					
Product sales and revenues	\$ 82,748	82%	\$ 32,517	67%	154%
Research and development contracts	17,987	18%	15,717	33%	14%
Total	\$ 100,735	100%	\$ 48,234	100%	109%

	Year Ended October 31, 2008		Year Ended October 31, 2007		Percentage Increase in Cost of
	Costs of Revenues	Costs of Revenues	Cost of Revenues	Costs of Revenues	Revenues
<b>Cost of revenues:</b>					
Product sales and revenues	\$ 134,038	89%	\$ 61,827	82%	117%
Research and development contracts	16,059	11%	13,438	18%	20%
Total	\$ 150,097	100%	\$ 75,265	100%	99%

Total revenues for the year ended October 31, 2008 increased by \$52.5 million, or 109% percent, to \$100.7 million from \$48.2 million during the same period last year. Components of revenues and costs of revenues are as follows:

## Product sales and revenues

	Year Ended October 31, 2008	Year Ended October 31, 2007	Percentage Change
Product sales and revenues	\$ 82,748	\$ 32,517	154%
Cost of Product sales and revenues	134,038	61,827	117%
Net loss on product sales and revenues	\$ (51,290)	\$ (29,310)	75%
Cost-to-revenue ratio	1.62	1.90	(15)%

Product sales and revenue increased \$50.2 million to \$82.7 million for fiscal 2008, compared to \$32.5 million for fiscal 2007. Revenue in fiscal 2008 included approximately \$64.3 million of power plant sales, \$8.7 million related to site engineering and construction work for projects where the Company is responsible for complete power plant

system installation, \$6.8 million related to service agreements and component sales and approximately \$2.9 million of revenue related to PPAs. Revenues are higher due to increased orders for our fuel cell power plants. Actual production in fiscal 2008 was approximately 22 MW of fuel cell products compared to approximately 11 MW in 2007.

Cost of product sales and revenues increased to \$134.0 million for fiscal 2008, compared to \$61.8 million during 2007. The ratio of product cost to sales was 1.62 to 1 during fiscal 2008, compared to 1.90 to 1 during the same period a year ago. The cost ratio has been favorably impacted in fiscal 2008 by the shift to MW production and lower unit costs across all product lines.

Service agreement and aftermarket costs which are a component of costs of sales have increased due to a larger installed fleet and stack replacement costs related to early sub-MW product designs. Costs and margin are negatively impacted by replacement of our last generation three year stack within our standard five-year LTSA contract. Products produced prior to this fiscal year had an expected stack life of approximately three years which is less than the term of our standard service agreement. Under the terms of our service agreements, the power plant must meet a minimum operating output during the term. If minimum output falls below the contract requirement, we may replace the customer's fuel cell stack with either a new or used unit. The Company's contractual liability under service agreements is limited to amount of service fees payable under the contract. This can often times be less than the cost of a new stack replacement. In order to continue to meet customer expectations on early product designs, the Company has incurred costs in excess of its contractual liabilities. Service agreements and aftermarket costs, net of revenues totaled approximately \$19.9 million in fiscal 2008 compared to \$10.0 million in fiscal 2007. Excluding this impact, the ratio of product cost to sales would have been 1.40 to 1 during fiscal 2008, compared to 1.66 to 1 during the same period a year ago.

We expect replacement of older stacks will continue over the next several years. As a result, we expect to continue to incur losses in order to maintain power plants. Future costs for maintaining legacy service agreements will be determined by a number of factors including life of the stack, used replacement stacks available, the Company's limit of liability on service agreements and future operating plans for the power plant. Given these considerations, the Company expects a similar impact in 2009 as was reported in 2008 and then expects the impact to decline in 2010 and 2011.

In 2008, our new five-year fuel cell stack went into production, extending the expected life by two years. Standard service agreements for power plants that have our new five-year stack design are not expected to require a stack change to continue to meet minimum operating levels during the initial five year term of the contract, although the Company has limited operating experience with these products. Stack replacements for these agreements will only be performed upon renewal of the service agreement if the parties mutually agree.

Cost of product sales and revenues includes costs to manufacture and ship our power plants or power plant components to customer locations, site engineering and construction costs where the Company is responsible for complete power plant system installation, warranty, and aftermarket costs required to service power plants for customers with long-term service agreements (including maintenance and stack replacement costs incurred during the period). Cost of sales also includes PPA operating costs and adjustments required to value our inventory at the lower of cost or market. As our fuel cell products are in their initial stages of development and market acceptance, we have not historically provided for a loss reserve estimate on product or service contracts.

#### Research and development contracts

Research and development revenue increased \$2.3 million to \$18.0 million for fiscal 2008, compared to \$15.7 million for 2007. Cost of research and development contracts increased to \$16.1 million during fiscal 2008, compared to \$13.4 million for 2007. Margin from research and development contracts for 2008 was approximately \$1.9 million or 11 percent, compared to 15 percent in 2007. Margin percentage on research and development contracts will vary with the level of cost share the Company is required to contribute. Research and development contract revenue and costs were primarily related to the DOE's large-scale SOFC hybrid and Vision 21 programs.

#### Administrative and selling expenses

Administrative and selling expenses increased \$1.3 million to \$20.0 million during fiscal 2008, compared to \$18.6 million in 2007. This was primarily driven by higher bid and proposal and other marketing activities over the prior year. Other increases included higher stock based compensation, business insurance and professional fees as a result of the growth in the business.

#### Research and development expenses

Research and development expenses decreased to \$23.5 million during fiscal 2008, compared to a \$27.5 million recorded in 2007. The decrease is due to a shift of engineering resources to commercial activities, including planning for our production and capacity ramp, increased research contract activities, and supporting the installed power plant base.

#### Loss from operations

Loss from operations increased by approximately \$19.7 million to \$92.8 million during fiscal 2008, compared to \$73.1 million recorded in 2007. The primary drivers to the increased loss were a higher loss on product sales of \$22.0 million due to higher production volumes and higher selling, general, and administrative expenses of approximately \$1.3 million. These increases were partially offset by lower internal research and development of approximately \$4.0 million. Net results benefited from a favorable product mix and lower per unit production costs compared to the comparable prior year period.

#### Loss from equity investments

Our ownership interest in Versa at October 31, 2008 was 39 percent and we account for the investment under the equity method of accounting. Our share of equity losses for fiscal 2008 and 2007 were \$1.9 million and \$1.3 million, respectively. The increase in equity losses is attributable to higher losses at Versa.

#### Interest and other income, net

Interest and other income, net, was \$3.3 million for fiscal 2008, compared to \$7.4 million for 2007. We recognized state research and development tax credits totaling \$0.5 million in fiscal 2008, compared to \$1.2 million for 2007 on lower allowable research and development activity. Interest income also decreased during 2008 by \$3.1 million due to lower average invested balances and lower interest rates.

Connecticut tax law allows certain companies to obtain cash refunds at an exchange rate of 65% of their research and development credits, in exchange for foregoing the carryforward of these credits into future tax years. We record Connecticut research and development tax credits in the period in which the return is filed, which is when management believes the amount of the credits are probable of collection.





## Provision for income taxes

We believe that due to our efforts to commercialize our DFC products, we will continue to incur losses. Based on projections for future taxable income over the period in which the deferred tax assets are realizable, management believes that significant uncertainty exists surrounding the recoverability of the deferred tax assets. Therefore, no tax benefit has been recognized related to current or prior year losses and other deferred tax assets.

As of October 31, 2008, we had approximately \$448 million of federal net operating loss carryforwards which expire in the years 2020 through 2028. We also had approximately \$343 million in state tax net operating loss carryforwards, which expire in the years 2011 through 2028 and approximately \$7 million of Connecticut state tax credit carryforwards, which expire at various times beginning in 2009.

## Comparison of the Years Ended October 31, 2007 and October 31, 2006

## Revenues and costs of revenues

The following tables summarize our revenue and cost of revenues for the years ended October 31, 2007 and 2006 (dollar amounts in thousands), respectively:

	Year Ended October 31, 2007		Year Ended October 31, 2006		Percentage Increase / (Decrease) in Revenues
	Revenues	Percent of Revenues	Revenues	Percent of Revenues	
<b>Revenues:</b>					
Product sales and revenues	\$ 32,517	67%	\$ 21,514	65%	51%
Research and development contracts	15,717	33%	11,774	35%	33%
Total	\$ 48,234	100%	\$ 33,288	100%	45%

	Year Ended October 31, 2007		Year Ended October 31, 2006		Percentage Increase / (Decrease) in Cost of Revenues
	Costs of Revenues	Percent of Costs of Revenues	Cost of Revenues	Percent of Costs of Revenues	
<b>Cost of revenues:</b>					
Product sales and revenues	\$ 61,827	82%	\$ 61,526	86%	1%
Research and development contracts	13,438	18%	10,330	14%	30%
Total	\$ 75,265	100%	\$ 71,856	100%	6%

Total revenues for the year ended October 31, 2007 increased by \$14.9 million, or 45% percent, to \$48.2 million from \$33.3 million during the same period last year. Components of revenues and costs of revenues are as follows:

## Product sales and revenues

Product sales and revenue increased \$11.0 million to \$32.5 million for fiscal 2007, compared to \$21.5 million for fiscal 2006. Revenue during fiscal 2007 included approximately \$24.9 million of power plant and component sales, \$3.3 million related to service agreements and approximately \$4.3 million of revenue related to power purchase agreements. Higher product sales and revenues were primarily due to an increase in power plant sales, including production of MW-class units, as well as increases in service agreement revenue, component sales and revenues from power purchase agreements, and site engineering construction revenue.



Cost of product sales and revenues increased to \$61.8 million for fiscal 2007, compared to \$61.5 million during fiscal 2006. The ratio of product cost to sales improved to 1.9 to 1 during 2007, compared to 2.9 to 1 during the same period a year ago. The improved margin is partially attributable to a shift to sales of MW-class power plants, which have a lower cost per kW compared to the sub-MW units produced in prior year. Product costs are lower on a per kW basis across all product lines as result of the Company's cost out program with continued reduction of product costs through value engineering, manufacturing improvements and supply chain enhancements. In addition, the Company introduced a 20 percent uprate in 2006, which effectively lowered product costs on a per kW basis compared to the prior year. The cost ratio was also favorably impacted in the period by higher revenue and margins on component sales and service agreements related to the growing installed fleet.

#### Research and development contracts

Research and development revenue increased \$3.9 million to \$15.7 million for fiscal 2007, compared to \$11.8 million for 2006. Cost of research and development contracts increased to \$13.4 million during fiscal 2007, compared to \$10.3 million for 2006. Margin for fiscal 2007 was \$2.3 million compared to \$1.4 million on higher revenues compared to the prior year. Research and development contract revenue and costs were primarily related to the DOE's large-scale SOFC hybrid program, the U.S. Navy contract for high temperature ship service fuel cell development and the Electrochemical Hydrogen Separation contract with the U.S. Army.

#### Administrative and selling expenses

Administrative and selling expenses increased \$0.9 million to \$18.6 million during fiscal 2007, compared to \$17.8 million in 2006. This increase is primarily due to higher sales and marketing activities related to a growing order pipeline and higher stock-based compensation.

#### Research and development expenses

Research and development expenses increased to \$27.5 million during fiscal 2007, compared to \$24.7 million recorded in the prior year. The increase is due to development costs for MW-class cost reduction and technology development to extend stack life and increase power output of our power plants, and higher stock-based compensation.

#### Loss from operations

Loss from operations for fiscal 2007 totaled \$73.1 million, compared to \$81.0 million recorded in 2006. The decrease in the loss from operations is primarily due to a favorable change in product margin resulting from the shift to production of more MW-class power plants and lower-cost sub-MW units, and improved margins on power purchase agreements. This improvement in the loss from operations was partially offset by higher administrative and selling and research and development expenses as discussed above.

#### Loss from equity investments

Our equity investment in Versa totaled approximately \$10.2 million and \$11.5 million as of October 31, 2007 and 2006, respectively. Our ownership interest at October 31, 2007 was 39 percent and we account for Versa under the equity method of accounting. Our share of equity losses for fiscal 2007 and 2006 were \$1.3 million and \$0.8 million, respectively.

During 2007, the Company invested \$2.0 million in Versa in the form of a convertible note. Should this note be converted into common stock, this investment would bring the Company's ownership percentage in Versa to approximately 43 percent. If not converted, the note and all accrued interest thereon is due May 2017. In conjunction

with this investment, the Company also received warrants for the right to purchase an additional 2,286 shares of common stock with an exercise price of \$175 per share. The fair value of the warrants was approximately \$0.2 million as of October 31, 2007 and is included within Investment and loan to affiliate on the consolidated balance sheet. Changes in the fair value of the warrants are included in the Consolidated Statement of Operations each period.

#### Interest and other income, net

Interest and other income, net, was \$7.4 million for fiscal 2007, compared to \$5.7 million for 2006. Interest and other income increased due to higher state research and development tax credits which totaled \$1.2 million in 2007, compared to \$0.2 million for 2006, as well as higher interest income on higher average invested balances.

Connecticut tax law allows certain companies to obtain cash refunds at an exchange rate of 65% of their research and development credits, in exchange for foregoing the carryforward of these credits into future tax years. We record Connecticut research and development tax credits in the period in which the return is filed, which is when management believes the amount of the credits are probable of collection.

#### Provision for income taxes

We believe that due to our efforts to commercialize our DFC products, we will continue to incur losses. Based on projections for future taxable income over the period in which the deferred tax assets are realizable, management believes that significant uncertainty exists surrounding the recoverability of the deferred tax assets. Therefore, no tax benefit has been recognized related to current or prior year losses and other deferred tax assets. Approximately \$4.6 million of our valuation allowance would reduce additional paid in capital upon subsequent recognition of any related tax benefits.

### LIQUIDITY AND CAPITAL RESOURCES

Cash, cash equivalents, and investments in U.S. treasuries totaled approximately \$86.9 million as of October 31, 2008, compared to \$153.6 million as of October 31, 2007. Net cash and investments used during fiscal 2008 was \$66.7 million.

#### Cash Inflows and Outflows

Cash and cash equivalents as of October 31, 2008 totaled \$38.0 million, reflecting a decrease of \$55.0 million from the balance reported as of October 31, 2007. The key components of our cash inflows and outflows from continuing operations were as follows:

**Operating Activities:** During fiscal 2008, we used \$61.4 million in cash for operating activities, compared to operating cash usage of \$56.0 million during 2007. Cash used in operating activities during fiscal 2008 consisted of a net loss for the period of approximately \$93.4 million, offset by non-cash amounts totaling \$18.6 million, including \$5.5 million of share-based compensation and depreciation expense of \$8.8 million.

The change in cash related to net working capital totaled approximately \$13.4 million. Changes favorable to working capital included an increase in accounts payable and accrued expenses of \$8.4 million related to higher procurement for increased production volumes. Inventories were lower by \$5.1 million as we settled into our current production volume of 30 MW by the end of fiscal 2008 and worked down higher inventory levels at the end of fiscal 2007 which were built in anticipation of ramping production. Deferred revenue and customer deposits also increased by \$7.4 million due to increased customer orders in the period. Customers make milestone payments during the production cycle for their power plants. Offsetting these increases were higher accounts receivable and other assets totaling \$7.5 million.

**Investing Activities:** During fiscal 2008, net cash provided by investing activities totaled \$3.8 million. During fiscal 2008, approximately \$79.1 million of investments in U.S. treasury securities matured and new U.S. treasury purchases totaled \$67.9 million for a net increase of investing activities of approximately \$11.2 million. Partially offsetting this increase were capital expenditures in fiscal 2008 totaling \$7.4 million partially related to expanding our manufacturing capacity to an annual minimum of 60 MW of production. We have recently slowed the purchasing of certain capital equipment for this expansion to be paced by expected future order flow. The total cost of the capacity expansion to 60 MW of production is expected to be approximately \$12.0 to \$15.0 million.

During fiscal 2007, net cash provided by investing activities totaled \$28.0 million. During fiscal 2007, approximately \$312.1 million of investments in U.S. treasury securities matured and new U.S. treasury purchases totaled \$277.7 million for a net increase of investing activities of approximately \$34.4 million. Partially offsetting this increase were capital expenditures in fiscal 2007 totaling \$4.4 million.

**Financing Activities:** During fiscal 2008, net cash provided by financing activities was approximately \$2.6 million, compared to \$94.7 million in 2007. Activity in fiscal 2008 included \$3.6 million for the payment of dividends on preferred stock and repayment of debt of \$0.4 million. These cash outflows in fiscal 2008 were offset by receipts of \$3.2 million from the sale of common stock and common stock issued for stock plans and \$3.6 million of cash borrowed from the Connecticut Development Authority on a \$4.0 million debt line established in the second quarter of fiscal 2008 for equipment purchases associated with manufacturing capacity expansion.

#### Sources and Uses of Cash and Investments

We continue to invest in new product development and market development and, as such, we are not currently generating positive cash flow from our operations. Our operations are funded primarily through sales of equity securities and cash generated from customer contracts, including cash from product sales, service and PPAs, incentive funding, government research and development contracts, and interest earned on investments. We anticipate that our existing capital resources, together with anticipated revenues, will be adequate to satisfy our financial requirements and agreements through at least the next twelve months.

Our future cash requirements depend on numerous factors including; implementing our cost reduction efforts, increasing annual order volume and future involvement in research and development contracts as follows:

#### Implementing cost reduction efforts on our fuel cell products

Reducing product cost is essential for us to further penetrate the market for our fuel cell products. Cost reductions will reduce and may eliminate the need for incentive funding programs and are critical to our attaining profitability. Currently available incentives allow our product pricing to compete with grid-delivered power and other distributed generation technologies. Product cost reductions come from several areas:

- engineering improvements;
- technology advances;
- supply chain management;
- production volume; and
- manufacturing process improvements

We have reduced the cost of our MW-class power plants by approximately 85 percent since our 'proof-of-concept' 2 MW Santa Clara project in 1996-1997. In 2003, we implemented our commercial cost-out program, hiring additional engineers who focused on reducing the total life cycle costs of our power plants. We have made significant progress primarily through value engineering our products, manufacturing process improvements, technology improvements, and global sourcing.



In 2008, we also completed our design of the newest MW-class power plants that we anticipate will go into production in the fourth fiscal quarter of 2009. The new design incorporates new stacks with outputs of 350 kW each compared to 300 kW previously, along with lower component and raw material costs derived from process improvements, volume manufacturing and global sourcing. With these new models, we expect all future MW-class orders are expected to be gross margin positive.

In 2008, we also began manufacturing our first five-year stacks, representing a service cost reduction for the Company. Previously our stacks had a life of approximately three years.

#### Increasing annual order volume

In addition to the cost reduction initiatives discussed above, we need to increase annual order volume. Increased production volumes lower costs by leveraging supplier/purchasing opportunities, creating opportunities for incorporating manufacturing process improvements, and spreading fixed costs over higher units of production. Our overall manufacturing process (module manufacturing, final assembly, and test and conditioning) has a production capacity of 50 MW per year. Based upon existing backlog, we ramped our production volumes to an annualized rate of 30 MW during 2008. Our current product sales backlog is 32.5 MW and totals approximately \$67.1 million. This compares to a product sales backlog of 15.6 MW as of October 31, 2007, which totaled approximately \$42.5 million. We see continued opportunities for increased order volume in our key markets, including Asia, California and Connecticut.

We sell both completed power plants and fuel cell modules. Of the current product backlog, over 90 percent is for MW-class complete power plants and fuel cell modules. Based on the current backlog, we expect the mix of production to move primarily to DFC3000 power plants and fuel cell modules in fiscal 2009 and beyond. We believe we can reach gross margin breakeven at a sustained annual order and production volume of approximately 35 to 70 MW and that net income breakeven can be achieved at a sustained annual order and volume production of approximately 75 to 125 MW depending on product mix, volume mix of full power plants vs. modules only, future service costs, and other variables that may affect sales pricing.

#### Future involvement in research and development contracts

Our research and development contracts are generally multi-year, cost reimbursement contracts. The majority of these are U.S. Government contracts that are dependent upon the government's continued allocation of funds and may be terminated in whole or in part at the convenience of the government. We will continue to seek research and development contracts. To obtain these contracts, we must continue to prove the benefits of our technologies and be successful in our competitive bidding.



## Commitments and Significant Contractual Obligations

A summary of our significant future commitments and contractual obligations as of October 31, 2008 and the related payments by fiscal year is summarized as follows (in thousands):

	Payments Due by Period				
	Total	Less than 1 Year	1 – 3 Years	3 – 5 Years	More than 5 Years
<b>Contractual Obligation:</b>					
Capital and operating lease commitments (1)	\$ 4,279	\$ 1,184	\$ 1,228	\$ 896	\$ 971
Term loans (principal and interest)	5,182	787	1,001	1,031	2,363
Purchase commitments(2)	40,378	39,213	1,165	—	—
Series I Preferred dividends payable (3)	20,640	415	10,887	2,075	7,263
Series B Preferred dividends payable (4)	4,052	3,206	846	—	—
<b>Totals</b>	<b>\$ 74,531</b>	<b>\$ 44,805</b>	<b>\$ 15,127</b>	<b>\$ 4,002</b>	<b>\$ 10,597</b>

(1) Future minimum lease payments on capital and operating leases.

(2) Purchase commitments with suppliers for materials supplies, and services incurred in the normal course of business.

(3) Quarterly dividends of Cdn.\$312,500 accrue on the Series 1 preferred shares (subject to possible reduction pursuant to the terms of the Series 1 preferred shares on account of increases in the price of our common stock). We have agreed to pay a minimum of Cdn.\$500,000 in cash or common stock annually to Enbridge, Inc., the holder of the Series 1 preferred shares, so long as Enbridge holds the shares. Interest accrues on cumulative unpaid dividends at a 2.45 percent quarterly rate, compounded quarterly, until payment thereof. Using an exchange rate of Cdn.\$ .83 to U.S.\$1.00 (exchange rate on October 31, 2008), cumulative unpaid dividends and accrued interest of approximately \$7.4 million on the Series 1 preferred shares were outstanding as of October 31, 2008. For the purposes of this disclosure, we have assumed an exchange rate of Cdn.\$ .83 to U.S.\$1.00 (exchange rate on October 31, 2008) and that the minimum dividend payments would be made through 2010. In 2010, we would be required to pay any unpaid and accrued dividends. Subsequent to 2010, we would be required to pay annual dividend amounts totaling Cdn.\$1.25 million. We have the option of paying these dividends in stock or cash.

(4) Dividends on Series B Preferred Stock accrue at an annual rate of 5% paid quarterly. The obligations schedule assumes we will pay preferred dividends on these shares through November 20, 2009, at which time the preferred shares may be subject to mandatory conversion at the option of the Company.

In April 2008, we received approval from the Connecticut Department of Public Utility Control on the financing commitment for the 9.0 MW Milford, Connecticut DFC-ERG project under Connecticut's Clean Energy Fund Project 150. Under the financial commitment, we will provide 20 percent or \$7.1 million toward financing the construction of this project. Our development partner, Energy East Corporation, will provide the remaining 80 percent of the construction phase financing. The commitment is contingent on entering into final contracts with Energy East for the DFC-ERG project.

In April 2008, we entered into a new 10-year loan agreement with the CDA allowing for a maximum amount borrowed of \$4.0 million. At October 31, 2008, we had an outstanding balance of \$3.6 million on this loan. The stated interest rate is 5 percent and the loan will be collateralized by the assets procured under this loan as well as \$4.0

million of additional machinery and equipment. Repayment terms require (i) interest only payments on outstanding balances through November 2009 and (ii) interest and principal payments commencing in December 2009 through May 2018.

In April 2006, Bridgeport FuelCell Park, LLC (“BFCP”), one of our wholly-owned subsidiaries, entered into a loan agreement for \$0.5 million, secured by assets of BFCP. Loan proceeds were designated for pre-development expenses associated with the development, construction, and operation of a fuel cell generation facility in Bridgeport, Connecticut (the “Project”). The outstanding balance on this loan was \$0.6 million, including accrued interest, as of October 31, 2008.

In December 2006, we entered into a master equipment lease agreement for \$2.5 million of equipment. As of October 31, 2008, capital lease obligations under this lease agreement were \$0.4 million. Lease payment terms are thirty-six months.

We have pledged approximately \$10.9 million of our cash and cash equivalents as collateral and letters of credit for certain banking relationships and customer contracts, of which approximately \$9.1 million supported letters of credit that expired on various dates through December 31, 2008.

#### Product sales contracts

Through 2008, the costs to manufacture and install our products exceeded market prices. As of October 31, 2008, we had product sales backlog of approximately \$67.1 million. Included in backlog are orders for the Company's newest 2.8 MW product design which is expected to be gross margin profitable and produced in the Company's fourth fiscal quarter of 2009. Due to product mix, service and warranty costs, we do not expect the Company to achieve gross margin profitability until we achieve sustained annual production volume of approximately 35 MW to 50 MW, depending on product mix, geographic location, incentives and credits and other variables such as fuel prices. Actual production in fiscal 2007 was approximately 11 MW and was approximately 22 MW in 2008. In mid 2008, we ramped to an annualized production rate of approximately 30MW in response to worldwide demand for the Company's MW-class power plants. Future production volume will be adjusted to match order backlog.

#### Long-term service agreements

We have contracted with certain customers to provide long-term service for fuel cell power plants ranging from one to 13 years. Our standard service agreement term is five years and may be renewed if the parties mutually agree on future pricing. Pricing for service contracts is based upon the markets in which we compete as well as estimates of future costs. Given our products' early stage of development, actual expenses could be materially different than the contract price resulting in a loss.

Under the provisions of these contracts, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Should the power plant not meet the minimum operating levels, the Company may be required to replace the fuel cell stack with a new or used replacement. Our contractual liability under service agreements is limited to amount of service fees payable under the contract. We have incurred and expect to continue to incur costs in excess of revenues in order to maintain customer power plants under its service agreements. Service agreement and aftermarket costs, net of revenues totaled approximately \$19.9 million in fiscal 2008 compared to \$10.0 million in fiscal 2007.

We expect replacement of older stacks will continue over the next several years. As a result, we expect to continue to incur losses in order to maintain power plants. Future costs for maintaining legacy service agreements will be determined by a number of factors including life of the stack, used replacement stacks available, the Company's limit of liability on service agreements and future operating plans for the power plant. Given these considerations, the Company expects a similar impact in 2009 as was reported in 2008 and then expects the impact to decline in 2010 and 2011.

In fiscal 2008, our new five-year fuel cell stack went into production, extending the expected life by two years. Service agreements related to power plants that have our new five-year stack design are not expected to require a stack change to continue to meet minimum operating levels although the Company has limited operating experience with these products. Power plants that do not have our new design may require a stack replacement and we expect to continue to incur costs for stack changes as the older three-year stacks reach end of life.



#### Power purchase agreements

As of October 31, 2008, we had 3 MW of power plant installations under PPAs ranging in duration from 5 – 10 years. PPAs are a common arrangement in the energy industry whereby a customer purchases energy from an owner and operator of the power generation equipment.

We qualified for incentive funding for these projects in California under the state's Self-Generation Incentive Funding Program and from other government programs. Funds are payable upon commercial installation and demonstration of the plant and may require return of the funds for failure of certain performance requirements. Revenue related to these incentive funds is recognized ratably over the performance period. As of October 31, 2008 we had deferred revenue totaling \$4.4 million on the consolidated balance sheet related to incentive funding received on PPAs.

Under the terms of our PPAs, customers agree to purchase power from our fuel cell power plants at negotiated rates, generally for periods of 5 to 10 years. Electricity rates are generally a function of the customer's current and future electricity pricing available from the grid. Revenues are earned and collected under these PPAs as power is produced. As owner of the power plants, we are responsible for all operating costs necessary to maintain, monitor and repair the power plants. Under certain agreements, we are also responsible for procuring fuel, natural gas, to run the power plants. The assets, including fuel cell power plants, are carried at the lower of cost or fair value on the Consolidated Balance Sheets based on our estimates of future revenues and expenses. We are not required to produce minimum amounts of power under our PPAs and we have the right to terminate PPAs by giving written notice to the customer, subject to certain exit costs.

#### Research and development cost-share contracts

We have contracted with various government agencies as either a prime contractor or sub-contractor on cost-share contracts and agreements. Cost-share terms require that participating contractors share the total cost of the project based on an agreed upon ratio with the government agency. As of October 31, 2008, our research and development sales backlog totaled \$4.8 million. We will incur additional research and development cost-share related to this backlog totaling approximately \$1.5 million which will not be reimbursed by the government.

In the fourth quarter of 2008, we successfully completed the first phase of the DOE's three-phase program to develop multi-MW coal-based SOFC power plants. Phase I was focused on SOFC cell and stack technology scale-up, as well as developing a baseline and proof-of-concept system engineering design and analysis. In December of 2008, the DOE accepted our \$21 million proposal for Phase II. The total program cost is \$30.2 million of which \$21 million will be funded by the DOE. The program will begin January 2009 and end in September of 2010 and seeks to build a minimum 25 kW solid oxide fuel cell (SOFC) stack that meets certain performance requirements and cost targets as a manufactured product. The new stack will be integrated into a 250 kW to 1 MW fuel cell power module and a 5 MW proof-of-concept system operating on coal-based syngas (gas created from reacting coal with high temperature coal or steam). The module and proof-of-concept system will be designed, fabricated and tested in subsequent phases.

In the fourth quarter of 2008, we also completed the eight-year Ship Service Fuel Cell Program which resulted in successfully demonstrating electricity production from a military logistic fuel for the U.S. Navy. Additionally, we met the objectives of the six-year Vision 21 Program for the DOE with the demonstration of a 280 kW DFC/T system with 56 percent efficiency and development of the initial designs for a MW-class DFC/T.

## RECENT ACCOUNTING PRONOUNCEMENTS

In December 2007, the FASB issued Statement No. 141 (revised 2007), Business Combinations (“SFAS No. 141R”), and Statement No. 160, Noncontrolling Interests in Consolidated Financial Statements (“SFAS No. 160”). SFAS No. 141R requires an acquirer to measure the identifiable assets acquired, the liabilities assumed and any noncontrolling interest in the acquiree at their fair values on the acquisition date, with goodwill being the excess value over the net identifiable assets acquired. This Statement also requires the fair value measurement of certain other assets and liabilities related to the acquisition such as contingencies and research and development. SFAS No. 160 clarifies that a noncontrolling interest in a subsidiary should be reported as equity in the consolidated financial statements. Consolidated net income should include the net income for both the parent and the noncontrolling interest with disclosure of both amounts on the consolidated statement income. The calculation of earnings per share will continue to be based on income amounts attributable to the parent. The effective date for both Statements is the beginning of fiscal year 2010. We have not yet determined the impact, if any, that the adoption of SFAS No. 141R and SFAS No. 160 could have on our consolidated financial statements.

In April 2008, the FASB issued Financial Staff Position (“FSP”) No. FAS 142-3, Determination of the Useful Life of Intangible Assets. FSP No. FAS 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under SFAS No. 142, “Goodwill and Other Intangible Assets.” The intent of the position is to improve the consistency between the useful life of a recognized intangible asset under SFAS No. 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS No. 141R, and other U.S. generally accepted accounting principles. The provisions of FSP No. FAS 142-3 are effective for fiscal years beginning after December 15, 2008. FSP No. FAS142-3 is effective for the Company’s fiscal year beginning November 1, 2009. We have not yet determined the impact, if any, that the adoption of FSP No. FAS 142-3 could have on our consolidated financial statements.

In September 2006, the FASB issued Statement No. 157, Fair Value Measurements (“SFAS No. 157”). This Statement defines fair value and expands disclosures about fair value measurements. These methods will apply to other accounting standards that use fair value measurements and may change the application of certain measurements used in current practice. This Statement is effective for the beginning of fiscal year 2009, November 1, 2008 for the Company. In February 2008, the FASB issued FSP FAS 157-2, Effective Date of FASB Statement No. 157, which delays the effective date of SFAS No. 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). FSP FAS 157-2 partially defers the effective date of SFAS 157 to fiscal years beginning after November 15, 2008, and interim periods within those fiscal years for items within the scope of this FSP. FSP FAS 157-2 is effective for us beginning November 1, 2009. We do not anticipate SFAS No. 157 will have a material impact on our consolidated financial statements upon adoption and we have not yet determined the impact, if any, that the adoption of FSP FAS 157-2 could have on our consolidated financial statements upon adoption in fiscal 2010.

In February 2007, the FASB issued Statement No. 159, the Fair Value Option for Financial Assets and Financial Liabilities (“SFAS No. 159”). This Statement permits entities to measure most financial instruments at fair value if desired. It may be applied on a contract by contract basis and is irrevocable once applied to those contracts. The Statement may be applied at the time of adoption for existing eligible items, or at initial recognition of eligible items. After election of this option, changes in fair value are reported in earnings. The items measured at fair value must be shown separately on the balance sheet. This Statement is effective for the beginning of fiscal year 2009. The cumulative effect of adoption, if any, would be reported as an adjustment to beginning retained earnings. We do not anticipate SFAS No. 159 will have a material impact on our consolidated financial statements upon adoption.

In March 2008, the FASB issued Statement No. 161, Disclosures about Derivative Instruments and Hedging Activities – an amendment of FASB Statement No. 133 (“SFAS No. 161”). SFAS No. 161 amends and expands the disclosure requirements of FASB Statement No. 133 “Accounting for Derivative Instruments and Hedging Activities” by establishing, among other things, the disclosure requirements for derivative instruments and hedging activities. This Statement requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative agreements. The provisions of SFAS No. 161 are effective for fiscal years and interim periods beginning after November 15, 2008, with early application encouraged. SFAS No. 161 is effective for the Company’s second quarter of fiscal year ending October 31, 2009. We have not yet determined the impact, if any, that the adoption of SFAS No. 161 could have on our consolidated financial statements.

## Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### Interest Rate Exposure

Our exposures to market risk for changes in interest rates relate primarily to our investment portfolio and long term debt obligations. Our investment portfolio as of October 31, 2008 includes short-term U.S. Treasury instruments with maturities averaging three months or less, as well as long-term U.S. Treasury notes with fixed interest rates with maturities through April 2010. Cash is invested overnight with high credit quality financial institutions. Based on our overall interest exposure at October 31, 2008, including all interest rate sensitive instruments, a near-term change in interest rate movements of 1 percent would affect our results of operations by approximately \$0.4 million annually.

### Foreign Currency Exchange Risk

With our Canadian business entity, FuelCell Energy, Ltd., we are subject to foreign exchange risk, although we have taken steps to mitigate those risks where possible. As of October 31, 2008, approximately \$0.07 million (less than one percent) of our total cash, cash equivalents and investments was in currencies other than U.S. dollars. The functional currency of FuelCell Energy, Ltd. is the U.S. dollar. We also make purchases from certain vendors in currencies other than U.S. dollars. Although we have not experienced significant foreign exchange rate losses to date, we may in the future, especially to the extent that we do not engage in currency hedging activities. The economic impact of currency exchange rate movements on our operating results is complex because such changes are often linked to variability in real growth, inflation, interest rates, governmental actions and other factors. These changes, if material, may cause us to adjust our financing and operating strategies. Consequently, isolating the effect of changes in currency does not incorporate these other important economic factors.

### Derivative Fair Value Exposure

We have determined that our Series 1 Preferred shares include embedded derivatives that require bifurcation from the host contract and separate accounting in accordance with SFAS 133, Accounting for Derivative Instruments and Hedging Activities. Specifically, the embedded derivatives requiring bifurcation from the host contract are the conversion feature of the security and the variable dividend obligation. The aggregate fair value of these derivatives included within Long-term debt and other liabilities on our Consolidated Balance Sheet as of October 31, 2008 was \$0.3 million. The fair value of these derivatives is based on valuation models using various assumptions including historical stock price volatility, risk-free interest rate and a credit spread based on the yield indexes of technology high yield bonds, foreign exchange volatility as the Series 1 Preferred security is denominated in Canadian dollars, and the closing price of our common stock. Changes in any of these assumptions will result in fluctuations in the derivative value and will impact the Consolidated Statement of Operations. For example, a 25 percent increase from the closing price of our common stock at October 31, 2008 would result in an increase in the fair value of these derivatives and a charge to the Consolidated Statement of Operations of approximately \$0.1 million, assuming all other assumptions remain the same.





We have determined that the 2,286 warrants received in conjunction with our investment in Versa during the third fiscal quarter of 2007 represent derivatives. The fair value of the warrants is based on the Black-Scholes valuation model using historical stock price, volatility (based on a peer group since Versa's common stock is not publicly traded) and risk-free interest rate assumptions. The fair value of this derivative included within Investment and loan to affiliate on our Consolidated Balance Sheet as of October 31, 2008 was \$0.3 million. Changes in any of these assumptions will result in fluctuations in the derivative value and will impact the Consolidated Statement of Operations. For example, a 10 percent increase in the volatility assumption used at October 31, 2008 would result in an increase in the fair value of this derivative and a charge to the Consolidated Statement of Operations of approximately \$18 thousand, assuming all other assumptions remain the same.

Item 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
FuelCell Energy, Inc.:

We have audited the accompanying consolidated balance sheets of FuelCell Energy, Inc. as of October 31, 2008 and 2007, and the related consolidated statements of operations, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended October 31, 2008. We also have audited FuelCell Energy, Inc.'s internal control over financial reporting as of October 31, 2008, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). FuelCell Energy, Inc.'s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying management report on internal controls over financial reporting. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of FuelCell Energy, Inc. as of October 31, 2008 and 2007, and the results of its operations and its cash flows for each of the years in the three-year period ended October 31, 2008, in conformity with U.S. generally accepted accounting principles. Also in our opinion, FuelCell Energy, Inc. maintained, in all material respects, effective internal control over financial reporting as of October 31, 2008, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Note 13 to the consolidated financial statements, the Company changed its method of accounting for share-based payments as of November 1, 2005.

/s/ KPMG LLP

Hartford, Connecticut  
January 14, 2009

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FUELCELL ENERGY, INC.  
Consolidated Balance Sheets  
(Dollars in thousands, except share and per share amounts)

	October 31, 2008	October 31, 2007
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 38,043	\$ 92,997
Investments: U.S. treasury securities	30,406	60,634
Accounts receivable, net of allowance for doubtful accounts of \$51 and \$63, respectively	16,096	10,063
Inventories, net	24,523	29,581
Other current assets	8,952	7,730
<b>Total current assets</b>	<b>118,020</b>	<b>201,005</b>
Property, plant and equipment, net	38,259	39,612
Investments: U.S. treasury securities	18,434	—
Investment and loan to affiliate	10,405	12,216
Other assets, net	358	355
<b>Total assets</b>	<b>\$ 185,476</b>	<b>\$ 253,188</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Current portion of long-term debt and other liabilities	\$ 795	\$ 924
Accounts payable	16,287	9,516
Accounts payable due to affiliate	724	2,881
Accrued liabilities	11,023	8,511
Deferred revenue and customer deposits	29,585	20,486
<b>Total current liabilities</b>	<b>58,414</b>	<b>42,318</b>
Long-term deferred revenue	2,672	4,401
Long-term debt and other liabilities	4,075	613
<b>Total liabilities</b>	<b>65,161</b>	<b>47,332</b>
Redeemable minority interest	13,307	11,884
Redeemable preferred stock (\$0.01 par value, liquidation preference of \$64,120 at October 31, 2008 and 2007.)	59,950	59,950
Commitments and Contingencies (Note 16)		
Shareholders' equity:		
Common stock (\$.0001 par value); 150,000,000 shares authorized at October 31, 2008 and 2007; 68,782,446 and 68,085,059 shares issued and outstanding at October 31, 2008 and 2007, respectively.	7	7
Additional paid-in capital	578,337	571,944
Accumulated deficit	(531,286)	(437,929)
Treasury stock, Common, at cost (8,981 and 12,282 shares at October 31, 2008 and 2007, respectively.)	(90)	(126)
Deferred compensation	90	126
<b>Total shareholders' equity</b>	<b>47,058</b>	<b>134,022</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 185,476</b>	<b>\$ 253,188</b>

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See accompanying notes to consolidated financial statements.

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FUELCELL ENERGY, INC.  
 Consolidated Statements of Operations  
 For the years ended October 31, 2008, 2007, and 2006  
 (Dollars in thousands, except share and per share amounts)

	Years Ended October 31,		
	2008	2007	2006
<b>Revenues:</b>			
Product sales and revenues	\$ 82,748	\$ 32,517	\$ 21,514
Research and development contracts	17,987	15,717	11,774
Total revenues	100,735	48,234	33,288
<b>Costs and expenses:</b>			
Cost of product sales and revenues	134,038	61,827	61,526
Cost of research and development contracts	16,059	13,438	10,330
Administrative and selling expenses	19,968	18,625	17,759
Research and development expenses	23,471	27,489	24,714
Total costs and expenses	193,536	121,379	114,329
Loss from operations	(92,801)	(73,145)	(81,041)
License fee income, net	—	34	42
Interest expense	(100)	(84)	(103)
Loss from equity investments	(1,867)	(1,263)	(828)
Interest and other income, net	3,268	7,437	5,718
Loss before redeemable minority interest	(91,500)	(67,021)	(76,212)
Redeemable minority interest	(1,857)	(1,653)	107
Loss before provision for income taxes	(93,357)	(68,674)	(76,105)
Provision for income taxes	—	—	—
Net loss	(93,357)	(68,674)	(76,105)
Preferred stock dividends	(3,208)	(3,208)	(8,117)
Net loss to common shareholders	\$ (96,565)	\$ (71,882)	\$ (84,222)
<b>Loss per share basic and diluted:</b>			
Net loss to common shareholders	\$ (1.41)	\$ (1.16)	\$ (1.65)
Basic and diluted weighted average shares outstanding	68,570,689	61,990,555	51,046,843

See accompanying notes to consolidated financial statements.

FUELCELL ENERGY, INC.  
 Consolidated Statements of Changes in Shareholders' Equity  
 For the years ended October 31, 2008, 2007, and 2006  
 (Dollars in thousands, except share and per share amounts)

	Shares Of Common Stock	Common Stock	Additional Paid-In Capital	Accumulated Deficit	Treasury stock	Deferred Compensation	Total Shareholders' Equity
Balance at October 31, 2005	48,497,088	\$ 5	\$ 424,472	\$ (293,513)	\$ (44)	\$ 44	\$ 130,964
Sale of common stock	681,000	—	7,993	—	—	—	7,993
Impact of change in accounting for Series 1 Preferred stock (Note 1)	—	—	—	363	—	—	363
Share-based compensation	—	—	4,369	—	—	—	4,369
Issuance of warrants under distributor agreement	—	—	34	—	—	—	34
Increase in additional paid-in-capital for stock and options issued under benefit plans	410,502	—	2,250	—	—	—	2,250
Conversion of Series B Preferred stock to common stock	3,553,615	—	39,039	—	—	—	39,039
Preferred dividends – Series B	—	—	(8,112)	—	—	—	(8,112)
Deferred compensation	(11,304)	—	—	—	(114)	114	—
Net loss	—	—	—	(76,105)	—	—	(76,105)
Balance at October 31, 2006	53,130,901	5	470,045	(369,255)	(158)	158	100,795
Sale of common stock	13,467,730	2	96,712	—	—	—	96,714
Share-based compensation	—	—	5,167	—	—	—	5,167
Issuance of warrants under distributor agreement	—	—	10	—	—	—	10
Increase in additional paid-in-capital for stock and options	1,483,127	—	3,218	—	—	—	3,218



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issued under benefit plans													
Preferred dividends – Series B	—	—	(3,208)	—	—	—	(3,208)						
Deferred compensation	3,301	—	—	—	32	(32)	—						
Net loss	—	—	—	(68,674)	—	—	(68,674)						
Balance at October 31, 2007													
	68,085,059	\$	7	\$	571,944	\$	(437,929)	\$	(126)	\$	126	\$	134,022
Sale of common stock	180,000	\$	—	\$	1,689	\$	—	\$	—	\$	—	\$	1,689
Share-based compensation	—	—	5,529	—	—	—	—	—	—	—	—	—	5,529
Increase in additional paid-in-capital for stock and options issued under benefit plans	514,086	—	2,383	—	—	—	—	—	—	—	—	—	2,383
Preferred dividends – Series B	—	—	(3,208)	—	—	—	—	—	—	—	—	—	(3,208)
Deferred compensation	3,301	—	—	—	—	36	(36)	—	—	—	—	—	—
Net loss	—	—	—	(93,357)	—	—	—	—	—	—	—	—	(93,357)
Balance at October 31, 2008													
	68,782,446	\$	7	\$	578,337	\$	(531,286)	\$	(90)	\$	90	\$	47,058

See accompanying notes to consolidated financial statements.

FUELCELL ENERGY, INC.  
Consolidated Statements of Cash Flows  
For the years ended October 31, 2008, 2007, and 2006  
(Dollars in thousands, except share and per share amounts)

	Years Ended October 31,		
	2008	2007	2006
<b>Cash flows from operating activities:</b>			
Net loss	\$ (93,357)	\$ (68,674)	\$ (76,105)
<b>Adjustments to reconcile net loss to net cash used in operating activities:</b>			
Asset impairment	—	—	583
Stock-based compensation	5,529	5,167	4,369
Loss in equity investments	1,867	1,263	828
Redeemable minority interest	1,857	1,653	(107)
Interest receivable on loan to affiliate	(162)	(69)	233
Asset impairment	179	—	—
(Gain) loss on derivatives	(99)	83	—
Depreciation and amortization	8,801	9,185	9,558
Amortization (accretion) of bond premium (discount)	607	(740)	(167)
Provision for doubtful accounts	(13)	20	(62)
<b>(Increase) decrease in operating assets:</b>			
Accounts receivable	(6,020)	(681)	897
Inventories	5,058	(11,517)	(1,980)
Other assets	(1,462)	(4,668)	1,001
<b>Increase (decrease) in operating liabilities:</b>			
Accounts payable	4,614	(111)	6,274
Accrued liabilities	3,824	3,218	688
Deferred revenue and customer deposits	7,370	9,902	5,581
Net cash used in operating activities	(61,407)	(55,969)	(48,409)
<b>Cash flows from investing activities:</b>			
Capital expenditures	(7,368)	(4,409)	(11,287)
Convertible loan to affiliate	—	(2,000)	—
Treasury notes matured	79,100	312,120	202,761
Treasury notes purchased	(67,913)	(277,674)	(139,676)
Net cash provided by investing activities	3,819	28,037	51,798
<b>Cash flows from financing activities:</b>			
Repayment of debt	(449)	(438)	(558)
Proceeds from debt	3,564	354	248
Net proceeds from sale of common stock	2,091	96,257	7,993
Payment of preferred dividends	(3,642)	(3,642)	(8,931)
Common stock issued for option and stock purchase plans	1,070	2,151	1,404
Net cash provided by financing activities	2,634	94,682	156
Net (decrease) increase in cash and cash equivalents	(54,954)	66,750	(3,545)
Cash and cash equivalents-beginning of year	92,997	26,247	22,702
Cash and cash equivalents-end of year	\$ 38,043	\$ 92,997	\$ 26,247

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Short term investments (U.S. Treasuries)	30,406	60,634	81,286
Long term investments (U.S. Treasuries)	18,434	—	13,054
Ending cash, cash equivalents and investment in U.S. Treasuries	\$ 86,883	\$ 153,631	\$ 120,587

See accompanying notes to the consolidated financial statements.

FUELCELL ENERGY, INC.

Notes to Consolidated Financial Statements

For the years ended October 31, 2008, 2007, and 2006

(Tabular amounts in thousands, except share and per share amounts)

Note 1. Summary of Significant Accounting Policies

Nature of Business

FuelCell Energy, Inc. is engaged in the development and manufacture of high temperature fuel cells for clean electric power generation. Our Direct FuelCell ® (“DFC”) power plants produce reliable, secure and environmentally friendly 24/7 base load electricity for commercial and industrial, government and other customers. We have commercialized our DFC carbonate products and are beginning the development of planar solid oxide fuel cell technology. We expect to incur losses as we continue to participate in government cost share programs, sell products at prices lower than our current production costs, and invest in our cost reduction initiatives.

The consolidated financial statements include our accounts and those of our subsidiaries, including our Canadian subsidiary, FuelCell Energy, Ltd., and Bridgeport Fuel Cell Park, LLC and DFC-ERG Milford, LLC, which were formed for the purpose of developing projects within Connecticut. Alliance Monterrey, LLC; Alliance Chico, LLC; Alliance Star Energy, LLC; and Alliance TST Energy, LLC are joint ventures with Alliance Power, Inc. to construct fuel cell power plants and sell power under power purchase agreements. The financial results of the joint ventures are consolidated with those of the Company, which owns 80 percent of each entity. Cumulative minority interest in these Alliance entities is not material to the consolidated financial statements. Intercompany accounts and transactions have been eliminated.

Certain reclassifications have been made to our prior year amounts to conform to the 2008 presentation.

Cash and Cash Equivalents

Cash equivalents consist primarily of investments in money market funds and U.S. Treasury securities with original maturities averaging three months or less at date of acquisition. We place our temporary cash investments with high credit quality financial institutions. We have pledged approximately \$10.9 million of our cash and cash equivalents as collateral and letters of credit for certain banking relationships and customer contracts, of which approximately \$9.1 million supported letters of credit that expired on various dates through December 31, 2008.

Investments

Investments consist of U.S. Treasury securities with original maturities of greater than three months at the date of acquisition. The notes are classified as held to maturity since we have the ability and intention to hold them until maturity. The notes are being carried at amortized cost, which is par value, plus or minus unamortized premium or discount. Such notes are classified as current assets when remaining maturities are one year or less and as non-current assets when remaining maturities are greater than one year.

Inventories

Inventories consist principally of raw materials and work-in-process and are stated at the lower of cost or market.

Raw materials consist mainly of various nickel powders and steels, and various other components used in producing cell stacks and purchased components for the BOP. Work-in-process inventory is comprised of material, labor, and overhead costs incurred by us to build fuel cell stacks, which are subcomponents of a power plant. Work in process

also includes costs related to power plants in inventory which have not yet been dedicated to a particular commercial customer contract. From time to time, the Company will inventory costs related to a research and development contract if those costs are incurred ahead of a contractual milestone in order to properly match revenue and costs of sales.

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Our inventories are stated at the lower of recoverable cost or market price. In instances where costs incurred exceed current market price for our products, we provide for a lower of cost or market adjustment against gross inventory values.

#### Property, Plant and Equipment

Property, plant and equipment are stated at cost, less accumulated depreciation provided on the straight-line method over the estimated useful lives of the respective assets. Leasehold improvements are amortized on the straight-line method over the shorter of the estimated useful lives of the assets or the term of the lease.

When property is sold or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gain or loss is reflected in operations for the period.

We have capital leases primarily for computer equipment under a master equipment lease agreement for \$2.5 million of equipment. As of October 31, 2008, capital lease obligations under this lease agreement were \$0.4 million. Lease payment terms are thirty-six months.

#### Intellectual Property

Intellectual property, including internally generated patents and know-how, is carried at no value.

#### Impairment of Long Lived Assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. If events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable, we compare the carrying amount of the assets to future undiscounted net cash flows, excluding interest costs, expected to be generated by the assets and their ultimate disposition. If the sum of the undiscounted cash flows is less than the carrying value, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less costs to sell.

#### Revenue Recognition and Cost of Sales

Our revenue is primarily generated from customers located throughout the U.S., Asia and Europe and from agencies of the U.S. government. We generally require a down payment with the acceptance of a purchase order from a customer.

FUELCELL ENERGY, INC.

Notes to Consolidated Financial Statements

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We contract with our customers to perform research and development or manufacture, install and service fuel cell components and power plants under long-term contracts. We recognize revenue on a method similar to the percentage-of-completion method. Revenues on fuel cell research and development contracts are recognized proportionally as costs are incurred and compared to the estimated total research and development costs for each contract. In many cases, we are reimbursed only a portion of the costs incurred or to be incurred on the contract. Revenues from government funded research, development and demonstration programs are generally multi-year, cost reimbursement and/or cost shared type contracts or cooperative agreements. We are reimbursed for reasonable and allocable costs up to the reimbursement limits set by the contract or cooperative agreement.

While government research and development contracts may extend for many years, funding is often provided incrementally on a year-by-year basis if contract terms are met and Congress has authorized the funds. As of October 31, 2008, research and development sales backlog totaled \$4.8 million, of which 78 percent is funded. Should funding be temporarily delayed or if business initiatives change, we may choose to devote resources to other activities, including internally funded research and development.

Product sales and revenues include revenues from product sales, service contracts, revenue from the sale of electricity under power purchase agreements, grant revenue and power plant site engineering and construction revenue. Revenues from fuel cell product sales are recognized proportionally as costs are incurred and assigned to a customer contract by comparing the estimated total manufacture and installation costs for each contract to the total contract value. Revenues from service contracts are generally recognized ratably over the contract. For service contracts that include a fuel cell stack replacement, a portion of the total contract value is recognized as revenue at the time of the stack replacement and the remainder of the contract value is recognized ratably over the contract. Revenues from the sale of electricity are recognized as electricity is generated and provided to the customer. Incentive funding revenue is recognized ratably over the term of the power purchase agreement. Site engineering and construction revenue is recognized as costs are incurred and revenue is earned.

As our fuel cell products are in their early stages of development and market acceptance, actual costs incurred could differ materially from those previously estimated. We have not historically provided for a loss reserve estimate on product or service contracts. Once our products have achieved commercial market acceptance and order backlog is comparable to production capacity and future costs and product life can be reasonably estimated, and then estimated costs to complete an individual contract, in excess of revenue, will be accrued immediately upon identification.

#### License Fee Income / Expense Recognition

We have license agreements in place with income related to an agreement with MTU Onsite Energy (“MTU”) and POSCO Power. MTU, our European partner, has been granted an exclusive license to use our Direct FuelCell patent rights and know-how in Europe and the Middle East, and a non-exclusive license in South America and Africa, subject to certain rights of others and us, in each case for a royalty. Royalty amounts are recognized as income when earned over the term of the agreement. POSCO Power, our South Korean Partner, has been granted an exclusive license to use our Direct FuelCell BOP patents in its manufacturing processes. Beginning in 2009, POSCO Power will pay the Company a 4.1 percent annual royalty on fuel cell related sales by POSCO Power over the term of the agreement subject to minimum royalties.

License fee expense relates to royalty agreements with MTU, pursuant to which we have agreed to pay royalties based upon certain milestones or events relating to the sale of carbonate fuel cells.





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#### Deferred Revenue and Customer Deposits

We bill customers based upon certain milestones being reached. These billings are deferred and recognized as revenue based upon the Revenue Recognition policy summarized above.

#### Warrant Value Recognition

Warrants have been issued as sales incentives to certain of our business partners. These warrants vest as orders from our business partners exceed stipulated levels. Should warrants vest, or when management estimates that it is probable that warrants will vest, we will record a proportional amount of the fair value of the warrants against related revenue as a sales discount.

#### Research and Development

Our cost of research and development contracts reflects costs incurred under specific customer-sponsored research and development contracts. These costs consist of both manufacturing and engineering labor, including applicable overhead expenses, materials to build prototype units, materials for testing, and other costs associated with our research and development contracts.

Our research and development expenses reflect costs incurred for internal research and development projects conducted without specific customer-sponsored contracts. These costs consist primarily of labor, overhead, materials to build prototype units, materials for testing, consulting fees and other costs associated with our internal research and development expenses.

#### Warranty Costs

We warranty our products for a specific period of time against manufacturing or performance defects. As we have limited operating experience, warranty costs are currently expensed as incurred.

#### Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is recorded against deferred tax assets if it is unlikely that some or all of the deferred tax assets will be realized.

Effective November 1, 2007, we adopted FIN 48, Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No.109. FIN 48 prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that the company has taken or expects to take on a tax return (including a decision whether to file or not file a return in a particular jurisdiction). Under FIN 48, the financial statements reflect expected future tax consequences of such positions presuming the taxing authorities' full

knowledge of the position and all relevant facts.

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FUELCELL ENERGY, INC.  
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#### Use of Estimates

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the U.S. 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 consolidated financial statements and revenues and expenses during the period reported. Actual results could differ from those estimates. Estimates are used in accounting for, among other things, allowances for uncollectible receivables, excess or slow-moving inventories, obsolete inventories, impairment of assets, product warranty, depreciation and amortization, taxes, and contingencies. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary.

#### Comprehensive Income (Loss)

Comprehensive income (loss) is the increase or decrease in equity from sources other than owners. Our comprehensive loss equals net loss as reported on our Consolidated Statement of Operations totaling \$93.4 million, \$68.7 million and \$76.1 million for the years ended October 31, 2008, 2007 and 2006, respectively.

#### Foreign Currency Translation

Our Canadian operations are considered financially and operationally integrated and therefore the temporal method of translation of foreign currencies is followed. Under the temporal method, foreign currency gains or losses are recorded on the statement of operations. The functional currency is U.S. dollars. Monetary items are translated at period end exchange rates; non-monetary items are translated at historical exchange rates; revenue and expense items are translated at average rates of exchange prevailing during the period; and depreciation and amortization are translated at the same exchange rate as the assets to which they relate. Monetary items consist primarily of current assets and current liabilities, such as cash, cash equivalents and investments and accounts payable, which are denominated in non-U.S. currencies. We did not have significant foreign currency gains or losses during fiscal years ended October 31, 2008, 2007 or 2006.

#### Recent Accounting Pronouncements

In December 2007, the FASB issued Statement No. 141 (revised 2007), Business Combinations (“SFAS No. 141R”), and Statement No. 160, Noncontrolling Interests in Consolidated Financial Statements (“SFAS No. 160”). SFAS No. 141R requires an acquirer to measure the identifiable assets acquired, the liabilities assumed and any noncontrolling interest in the acquiree at their fair values on the acquisition date, with goodwill being the excess value over the net identifiable assets acquired. This Statement also requires the fair value measurement of certain other assets and liabilities related to the acquisition such as contingencies and research and development. SFAS No. 160 clarifies that a noncontrolling interest in a subsidiary should be reported as equity in the consolidated financial statements. Consolidated net income should include the net income for both the parent and the noncontrolling interest with disclosure of both amounts on the consolidated statement income. The calculation of earnings per share will continue to be based on income amounts attributable to the parent. The effective date for both Statements is the beginning of fiscal year 2010. We have not yet determined the impact, if any, that the adoption of SFAS No. 141R and SFAS No. 160 could have on our consolidated financial statements.

In April 2008, the FASB issued Financial Staff Position (“FSP”) No. FAS 142-3, Determination of the Useful Life of Intangible Assets. FSP No. FAS 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under SFAS No. 142, “Goodwill and Other Intangible Assets.” The intent of the position is to improve the consistency between the useful life of a recognized intangible asset under SFAS No. 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS No. 141R, and other U.S. generally accepted accounting principles. The provisions of FSP No. FAS 142-3 are effective for fiscal years beginning after December 15, 2008. FSP No. FAS142-3 is effective for the Company’s fiscal year beginning November 1, 2009. We have not yet determined the impact, if any, that the adoption of FSP No. FAS 142-3 could have on our consolidated financial statements.

FUELCELL ENERGY, INC.

Notes to Consolidated Financial Statements

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In September 2006, the FASB issued Statement No. 157, Fair Value Measurements (“SFAS No. 157”). This Statement defines fair value and expands disclosures about fair value measurements. These methods will apply to other accounting standards that use fair value measurements and may change the application of certain measurements used in current practice. This Statement is effective for the beginning of fiscal year 2009, November 1, 2008 for the Company. In February 2008, the FASB issued FSP FAS 157-2, Effective Date of FASB Statement No. 157, which delays the effective date of SFAS No. 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). FSP FAS 157-2 partially defers the effective date of SFAS 157 to fiscal years beginning after November 15, 2008, and interim periods within those fiscal years for items within the scope of this FSP. FSP FAS 157-2 is effective for us beginning November 1, 2009. We do not anticipate SFAS No. 157 will have a material impact on our consolidated financial statements upon adoption and we have not yet determined the impact, if any, that the adoption of FSP FAS 157-2 could have on our consolidated financial statements upon adoption in fiscal 2010.

In February 2007, the FASB issued Statement No. 159, the Fair Value Option for Financial Assets and Financial Liabilities (“SFAS No. 159”). This Statement permits entities to measure most financial instruments at fair value if desired. It may be applied on a contract by contract basis and is irrevocable once applied to those contracts. The Statement may be applied at the time of adoption for existing eligible items, or at initial recognition of eligible items. After election of this option, changes in fair value are reported in earnings. The items measured at fair value must be shown separately on the balance sheet. This Statement is effective for the beginning of fiscal year 2009. The cumulative effect of adoption, if any, would be reported as an adjustment to beginning retained earnings. We do not anticipate SFAS No. 159 will have a material impact on our consolidated financial statements upon adoption.

In March 2008, the FASB issued Statement No. 161, Disclosures about Derivative Instruments and Hedging Activities – an amendment of FASB Statement No. 133 (“SFAS No. 161”). SFAS No. 161 amends and expands the disclosure requirements of FASB Statement No. 133 “Accounting for Derivative Instruments and Hedging Activities” by establishing, among other things, the disclosure requirements for derivative instruments and hedging activities. This Statement requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative agreements. The provisions of SFAS No. 161 are effective for fiscal years and interim periods beginning after November 15, 2008, with early application encouraged. SFAS No. 161 is effective for the Company’s second quarter of fiscal year ending October 31, 2009. We have not yet determined the impact, if any, that the adoption of SFAS No. 161 could have on our consolidated financial statements.

## Note 2. Equity investments

Versa Power Systems, Inc. (“Versa”) is one of our sub-contractors under the Department of Energy (“DOE”) large-scale hybrid project to develop a coal-based, multi-MW solid oxide fuel cell-based hybrid system. Our ownership interest at October 31, 2008 was 39 percent and we account for Versa under the equity method of accounting.

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During the third quarter of fiscal 2007, the Company invested \$2.0 million in Versa in the form of a convertible note. This investment would bring the Company's ownership percentage in Versa to approximately 43% should this note be converted into common stock. If not converted, the note and all accrued interest thereon is due May 2017. In conjunction with this investment the Company also received warrants for the right to purchase an additional 2,286 shares of common stock with an exercise price of \$175 per share. We have determined that these warrants represent derivatives. The fair value of the warrants is based on the Black-Scholes valuation model using historical stock price, volatility (based on a peer group since Versa's common stock is not publicly traded) and risk-free interest rate assumptions. Changes in the fair value of the warrants are recorded in the Consolidated Statements of Operations. The fair value of this derivative included within Investment and loan to affiliate on our Consolidated Balance Sheet as of October 31, 2008 was \$0.3 million. Our investment and loan to Versa totaled approximately \$10.4 million and \$12.2 million as of October 31, 2008 and 2007, respectively.

### Note 3. Investments

Our short and long term investments are in U.S. treasury securities, which are held to maturity. The following table summarizes the amortized cost basis and fair value at October 31, 2008 and 2007:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (losses)	Fair Value
<b>At October 31, 2008</b>				
U.S. government obligations	\$ 48,840	\$ 304	\$ —	\$ 49,144
<b>At October 31, 2007</b>				
U.S. government obligations	\$ 60,634	\$ 71	\$ (1)	\$ 60,704

Reported as:

	2008	2007
Short-term investments	\$ 30,406	\$ 60,634
Long-term investments	18,434	—
Total	\$ 48,840	\$ 60,634

As of October 31, 2008, short-term investment securities have maturity dates ranging from November 15, 2008 to October 31, 2009, and estimated yields ranging from 1.54 percent to 2.24 percent. Long-term investment securities as of October 31, 2008 have maturity dates ranging from December 31, 2009 to April 30, 2010 and estimated yields ranging from 2.35 percent to 2.46 percent. Our weighted average yield on our short-term investments was 2.14% as of October 31, 2008.

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Note 4. Inventories

The components of inventory at October 31, 2008 and October 31, 2007 consisted of the following:

	2008	2007
Raw materials	\$ 18,952	\$ 8,682
Work-in-process	5,571	20,899
Total	\$ 24,523	\$ 29,581

Our inventories are stated at the lower of recoverable cost or market price. We provide for a lower of cost or market adjustment against gross inventory values. Our lower of cost or market adjustment, reducing gross inventory values to the reported amounts, was approximately \$11.4 million and \$15.3 million at October 31, 2008 and 2007, respectively.

Note 5. Accounts Receivable

Accounts receivable at October 31, 2008 and 2007 consisted of the following:

	2008	2007
<b>U.S. Government:</b>		
Amount billed	\$ 199	\$ 620
Unbilled recoverable costs	406	1,835
	605	2,455
<b>Commercial Customers:</b>		
Amount billed	4,584	4,989
Unbilled recoverable costs	10,907	2,619
	15,491	7,608
	\$ 16,096	\$ 10,063

The allowance for doubtful accounts was \$0.05 million and \$0.06 million at October 31, 2008 and 2007, respectively. Fiscal 2008 activity within the allowance for doubtful accounts included decreases totaling \$0.2 million, offset by increases totaling \$0.2 million.

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## Note 6. Property, Plant and Equipment

Property, plant and equipment at October 31, 2008 and 2007 consisted of the following:

	2008	2007	Estimated Useful Life
Land	\$ 524	\$ 524	—
Building and improvements	6,720	6,454	10-26 years
Machinery, equipment and software	58,314	53,449	3-8 years
Furniture and fixtures	2,454	2,468	10 years
Equipment leased to others	—	2,063	3 years
Power plants for use under power purchase agreements	17,743	17,743	10 years
Construction in progress(1)	7,173	5,009	
	92,928	87,710	
Less, accumulated depreciation and amortization	(54,669)	(48,098)	
Total	\$ 38,259	\$ 39,612	

- (1) Included in construction in progress are costs of approximately \$0.7 million at both October 31, 2008 and 2007 to build power plants, which will service power purchase agreement contracts.

During fiscal 2006, the Company recorded a charge of \$0.5 million related to the impairment of the 1 MW power plant that was being used to produce electricity under a power purchase agreement with the Sierra Nevada Brewing Co. This charge is included in cost of product sales and revenue on the consolidated statement of operation for fiscal 2006 and the fair value of the asset was based on an estimate of future cash flows directly associated with the use and eventual disposition of the asset. In December 2006, we completed the sale of this power plant to the Sierra Nevada Brewing Co. This resulted in a \$5.5 million decrease in gross property, plant and equipment, a \$1.5 million decrease in accumulated depreciation and a \$2.2 million decrease in liabilities related to the California Self-Generation Incentive Program which were assumed by the Sierra Nevada Brewing Co. Net cash proceeds from this transaction were \$1.8 million.

Depreciation expense was \$8.8 million for the year ended October 31, 2008 and \$9.2 million for the years ended October 31, 2007 and 2006.



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## Note 7. Other Assets

The components of other current assets at October 31, 2008 and October 31, 2007 consisted of the following:

	2008	2007
Advance payments to vendors (1)	\$ 3,830	\$ 4,073
Interest receivable	385	925
Receivable for sale of common stock	—	398
Receivable for state research and development tax credit (2)	470	1,243
Insurance receivable for power plant damaged during shipping	2,942	—
Prepaid expenses and other	1,325	1,091
<b>Total</b>	<b>\$ 8,952</b>	<b>\$ 7,730</b>

(1) Advance payments to vendors related to inventory purchases. We provide for a lower of cost or market adjustment against these advance payments. This adjustment totaled approximately \$0.9 million and \$1.6 million at October 31, 2008 and 2007, respectively.

(2) We believe that we are entitled to a larger cash refund for tax credit carryovers from the state of Connecticut for certain prior years. In the third quarter of 2008, we filed claims seeking cash refunds of approximately \$1.5 million for certain unused research and development tax credits, including various credit carryovers from certain prior years. It is unclear how the State of Connecticut will respond to the carryover portion of our refund claim. Accordingly, we have only recorded \$0.5 million of refunds associated with current year research activities. Refer to Note 14 for further discussion on income taxes.

Other long-term assets at October 31, 2008 and 2007 primarily related to security deposits and interest receivable on loan to affiliate.

## Note 8. Accrued Liabilities

Accrued liabilities at October 31, 2008 and 2007 consisted of the following:

	2008	2007
Accrued payroll and employee benefits	\$ 4,769	\$ 4,026
Accrued contract and operating costs	1,455	1,858
Reserve for long-term service agreement costs (1)	4,016	2,293
Accrued taxes and other	783	334
<b>Total</b>	<b>\$ 11,023</b>	<b>\$ 8,511</b>

(1) The Company provides for a reserve of long term service agreement costs if agreements are sold below the Company's standard pricing. Future costs in excess of revenues may be higher than amounts accrued as our fuel cell products are in their early stages of development and market acceptance. Refer to Footnote 1 – Revenue recognition and cost of sales as well as Footnote 16 – Commitments and Contingencies.



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## Note 9. Debt

At October 31, 2008 and 2007, debt consisted of the following:

	2008	2007
Notes payable	\$ 4,559	\$ 1,100
Less – current portion	(795)	(924)
Long-term debt	\$ 3,764	\$ 176

In April 2008, we entered into a 10-year loan agreement with the Connecticut Development Authority allowing for a maximum amount borrowed of \$4.0 million. At October 31, 2008, we had an outstanding balance of \$3.6 million on this loan. The stated interest rate is 5 percent and the loan will be collateralized by the assets procured under this loan as well as \$4.0 million of additional machinery and equipment. Repayment terms require (i) interest only payments on outstanding balances through November 2009 and (ii) interest and principal payments commencing in December 2009 through May 2018.

In April 2006, Bridgeport FuelCell Park, LLC (“BFCP”), one of our wholly-owned subsidiaries, entered into a loan agreement for \$0.5 million, secured by assets of BFCP. Loan proceeds were designated for pre-development expenses associated with the development, construction and operation of a fuel cell generation facility in Bridgeport, Connecticut (the “Project”). Interest accrues monthly at an annual rate of 8.75 percent. Repayment of the loan, together with any accrued and unpaid interest, is required on the earliest occurrence of any of the following events: (a) twelve months after the commencement date of the commercial operation of the Project, (b) the date of consummation and closing of permanent institutional financing of the Project, (c) the date of consummation and closing of any sale of the Project and (d) the date upon which certain change in control events occur related to BFCP. We have not made any prepayments as of October 31, 2008. The outstanding balance on this loan was \$0.6 million, including \$0.1 million of accrued interest, as of October 31, 2008.

In December 2006, we entered into a master equipment lease agreement for the lease of equipment. The lease agreement allows for an aggregate cost of equipment up to \$2.5 million. As of October 31, 2008, we had capital lease obligations under this lease agreement of \$0.4 million. Lease payment terms are thirty six months from the date of acceptance for leased equipment.

Aggregate annual principal payments under the loan agreements for the years subsequent to October 31, 2008 are as follows:

2009	\$ 200
2010	457
2011	419
2012	380
2013	399
Thereafter	2,109
	\$ 3,964

The BFCP outstanding loan of \$0.6 million is not included in the table above as the timing of events that would result in repayment, as outlined above, are not determinable. This loan is classified as currently payable in the Consolidated Balance Sheets.

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Note 10. Shareholders' Equity

Options and Stock Purchase Plan

At October 31, 2008, 7.1 million shares of common stock have been reserved for issuance pursuant to our equity incentive plans and our Section 423 Stock Purchase Plan. Refer to Note – 13 for additional disclosure related to these plans.

Common Stock Sales

During 2008, we sold 180,000 shares of our common stock on the open market for net proceeds of \$1.7 million.

Warrants

On July 7, 2005, we issued warrants to purchase up to an aggregate of 1,000,000 shares of our common stock to Enbridge Inc. (Enbridge) in conjunction with an amended distribution agreement. All previously issued warrants to Enbridge were cancelled. The warrants vest on a graduated scale based on the total number of MW contained in product orders and the timing of when such orders are generated by Enbridge. In October 2006 and July 2007, Enbridge placed qualifying orders resulting in vesting of 30,000 and 7,500 warrants, respectively, both with an exercise price of \$9.89. The 30,000 warrants expired on October 31, 2008 and the 7,500 vested warrants expire on October 31, 2009. As of October 31, 2008, 492,500 warrants expired unvested and the remaining available unvested warrants totaled 500,000 with an exercise price of \$11.87 per share and an expiration date of October 31, 2011.

Investments by Strategic Partners

Four of our key business partners are shareholders of FuelCell Energy, Inc. or its subsidiaries; POSCO Power, MTU Friedrichshafen GmbH, Enbridge Inc. and Marubeni. These business partners have less than a 10 percent ownership interest in the Company and do not exercise management control over the business.

Note 11. Preferred Stock

Redeemable Series B Preferred Shares

On November 11, 2004, we entered into a purchase agreement with Citigroup Global Markets Inc., RBC Capital Markets Corporation, Adams Harkness, Inc., and Lazard Freres & Co., LLC (the "Initial Purchasers") for the private placement under Rule 144A of up to 135,000 shares of our 5% Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000). On November 17, 2004 and January 25, 2005, we closed on the sale of 100,000 shares and 5,875 shares, respectively, of Series B Preferred Stock to the Initial Purchasers.

At October 31, 2008 and 2007, there were 250,000 authorized and there were 64,120 shares issued and outstanding. The carrying value of the Series B Preferred Stock outstanding as of October 31, 2008 and 2007 represents net proceeds to us of approximately \$60.0 million. During fiscal 2006, we converted 41,755 shares of Series B Preferred Stock (the "Shares") into 3,553,615 shares of our common stock. The conversion occurred pursuant to the terms of the Certificate of Designation for the Series B Preferred Stock, whereby upon conversion, the holders received 85.1064 shares of our common stock per share of Series B Preferred Stock. In addition, pursuant to

the conversion of the Shares, we paid the holders of the Shares a per Share conversion premium ("Conversion Premium"). The aggregate Conversion Premium was \$4.3 million, which has been recorded as a dividend.

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The following is a summary of certain provisions of our Series B preferred stock. The shares of our Series B preferred stock and the shares of our common stock issuable upon conversion of the shares of our Series B preferred stock are covered by a registration rights agreement.

#### Ranking

Shares of our Series B preferred stock rank with respect to dividend rights and rights upon our liquidation, winding up or dissolution:

- senior to shares of our common stock;
- junior to our debt obligations; and
- effectively junior to our subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

#### Dividends

The Series B preferred stock pays cumulative annual dividends of \$50 per share which are payable quarterly in arrears on February 15, May 15, August 15 and November 15, which commenced on February 15, 2005, when, as and if declared by the board of directors. Dividends will be paid on the basis of a 360-day year consisting of twelve 30-day months. Dividends on the shares of our Series B preferred stock will accumulate and be cumulative from the date of original issuance. Accumulated dividends on the shares of our Series B preferred stock will not bear any interest.

The dividend rate on the Series B preferred stock is subject to upward adjustment as set forth in the certificate of designation of the Series B preferred stock if we fail to pay, or to set apart funds to pay, dividends on the shares of our Series B preferred stock for any quarterly dividend period. The dividend rate on the Series B preferred stock is also subject to upward adjustment as set forth in the registration rights agreement entered into with the Initial Purchasers if we fail to satisfy our registration obligations with respect to the Series B preferred shares (or the underlying common shares) set forth in the registration rights agreement.

No dividends or other distributions may be paid or set apart for payment upon our common shares (other than a dividend payable solely in shares of a like or junior ranking) unless all accumulated and unpaid dividends have been paid or funds or shares of common stock therefore have been set apart on our Series B preferred stock.

We may pay dividends on the Series B preferred stock:

- in cash; or
- at the option of the holder, in shares of our common stock, which will be registered pursuant to a registration statement to allow for the immediate sale of these common shares in the public market.

#### Liquidation

The Series B preferred stock has a liquidation preference of \$1,000 per share. Upon any voluntary or involuntary liquidation, dissolution or winding up of our company resulting in a distribution of assets to the holders of any class or series of our capital stock, each holder of shares of our Series B preferred stock will be entitled to payment out of our assets available for distribution of an amount equal to the liquidation preference per share of Series B preferred stock held by that holder, plus all accumulated and unpaid dividends on those shares to the date of that liquidation,

dissolution, or winding up, before any distribution is made on any junior shares, including shares of our common stock, but after any distributions on any of our indebtedness or senior shares (if any). After payment in full of the liquidation preference and all accumulated and unpaid dividends to which holders of shares of our Series B preferred stock are entitled, holders of shares of our Series B preferred stock will not be entitled to any further participation in any distribution of our assets.



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### Conversion

A share of our Series B preferred stock may be converted at any time, at the option of the holder, into 85.1064 shares of our common stock (which is equivalent to an initial conversion price of \$11.75 per share) plus cash in lieu of fractional shares. The conversion rate is subject to adjustment upon the occurrence of certain events, as described below, but will not be adjusted for accumulated and unpaid dividends. Upon conversion, holders of Series B preferred stock will not receive a cash payment for any accumulated dividends. Instead accumulated dividends, if any, will be cancelled.

On or after November 20, 2009 we may, at our option, cause shares of our Series B preferred stock to be automatically converted into that number of shares of our common stock that are issuable at the then prevailing conversion rate. We may exercise our conversion right only if the closing price of our common stock exceeds 150% of the then prevailing conversion price for 20 trading days during any consecutive 30 trading day period, as described in the certificate of designation for the Series B preferred stock.

If holders of shares of our Series B preferred stock elect to convert their shares in connection with certain fundamental changes (as described below and in the certificate of designation), we will in certain circumstances discussed below increase the conversion rate by a number of additional shares of common stock upon conversion or, in lieu thereof, we may in certain circumstances elect to adjust the conversion rate and related conversion obligation so that shares of our Series B preferred stock are converted into shares of the acquiring or surviving company, in each case as described in the certificate of designation.

The adjustment of the conversion price of the Series B preferred stock is to prevent dilution of the interests of the holders of the Series B preferred shares, including on account of the following:

- Issuances of common stock as a dividend or distribution to holders of our common stock;
  - Common stock share splits or share combinations;
- Issuances to holders of our common stock of any rights, warrants or options to purchase our common stock for a period of less than 60 days; and
  - Distributions of assets, evidences of indebtedness or other property to holders of our common stock.

Shares of our Series B Preferred Stock will not be redeemable by us, except in the case of a fundamental change (as described below and in the certificate of designation) whereby holders may require us to purchase all or part of their shares at a redemption price equal to 100% of the liquidation preference of the shares of Series B Preferred Stock to be repurchased, plus accrued and unpaid dividends, if any. We may, at our option, elect to pay the redemption price in cash or, in shares of our common stock valued at a discount of 5% from the market price of shares of our common stock, or any combination thereof. Notwithstanding the foregoing, we may only pay such redemption price in shares of our common stock that are registered under the Securities Act of 1933 and eligible for immediate sale in the public market by non-affiliates of the Company.

Redemption by holders of the Series B Preferred Stock can only occur upon a fundamental change, which the Company does not consider to be probable at this time. Accordingly, future adjustments of the redemption price will only be made if and when a fundamental change is considered probable.

A “fundamental change” will be deemed to have occurred if any of the following occurs:



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(1) any "person" or "group" is or becomes the beneficial owner, directly or indirectly, of 50% or more of the total voting power of all classes of our capital stock then outstanding and normally entitled to vote in the election of directors;

(2) during any period of two consecutive years, individuals who at the beginning of such period constituted the Board of Directors (together with any new directors whose election by our Board of Directors or whose nomination for election by our shareholders was approved by a vote of two-thirds of our directors then still in office who were either directors at the beginning of such period or whose election or nomination for election was previously so approved) cease for any reason to constitute a majority of our directors then in office;

(3) the termination of trading of our common stock on the Nasdaq Stock Market and such shares are not approved for trading or quoted on any other U.S. securities exchange; or

(4) we consolidate with or merge with or into another person or another person merges with or into us or the sale, assignment, transfer, lease, conveyance or other disposition of all or substantially all of our assets and certain of our subsidiaries, taken as a whole, to another person and, in the case of any such merger or consolidation, Our securities that are outstanding immediately prior to such transaction and which represent 100% of the aggregate voting power of our voting stock are changed into or exchanged for cash, securities or property, unless pursuant to the transaction such securities are changed into securities of the surviving person that represent, immediately after such transaction, at least a majority of the aggregate voting power of the voting stock of the surviving person.

Notwithstanding the foregoing, holders of shares of Series B Preferred Stock will not have the right to require us to repurchase their shares if either:

- the last reported sale price of shares of our common stock for any five trading days within the 10 consecutive trading days ending immediately before the later of the fundamental change or its announcement equaled or exceeded 105% of the conversion price of the shares of Series B Preferred Stock immediately before the fundamental change or announcement;
- at least 90% of the consideration, excluding cash payments for fractional shares and in respect of dissenters' appraisal rights, in the transaction constituting the fundamental change consists of shares of capital stock traded on a U.S. national securities exchange or which will be so traded or quoted when issued or exchanged in connection with a fundamental change and as a result of the transaction, shares of Series B Preferred Stock become convertible into such publicly traded securities; or
- in the case of number 4 above of a fundamental change event, the transaction is effected solely to change our jurisdiction of incorporation.

#### Voting

Holders of shares of our Series B preferred stock have no voting rights unless (1) dividends on any shares of our Series B preferred stock or any other class or series of stock ranking on a parity with the shares of our Series B preferred stock with respect to the payment of dividends shall be in arrears for dividend periods, whether or not consecutive, containing in the aggregate a number of days equivalent to six calendar quarters or (2) we fail to pay the repurchase price, plus accrued and unpaid dividends, if any, on the fundamental change repurchase date for shares of our Series B preferred stock following a fundamental change (as described in the certificate of designation for the Series B preferred stock). In each such case, the holders of shares of our Series B preferred stock (voting separately as

a class with all other series of other preferred stock on parity with our Series B preferred stock upon which like voting rights have been conferred and are exercisable, if any) will be entitled to vote for the election of two directors in addition to those directors on the board of directors at such time at the next annual meeting of shareholders and each subsequent meeting until the repurchase price or all dividends accumulated on the shares of our Series B preferred stock have been fully paid or set aside for payment. The term of office of all directors elected by the holders of shares of our Series B preferred stock will terminate immediately upon the termination of the right of holders of shares of our Series B preferred stock to vote for directors.

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So long as any shares of our Series B preferred stock remain outstanding, we will not, without the consent of the holders of at least two-thirds of the shares of our Series B preferred stock outstanding at the time (voting separately as a class with all other series of preferred stock, if any, on parity with our Series B preferred stock upon which like voting rights have been conferred and are exercisable) issue or increase the authorized amount of any class or series of shares ranking senior to the outstanding shares of our Series B preferred stock as to dividends or upon liquidation. In addition, we will not, subject to certain conditions, amend, alter or repeal provisions of our certificate of incorporation, including the certificate of designation relating to our Series B preferred stock, whether by merger, consolidation or otherwise, so as to adversely amend, alter or affect any power, preference or special right of the outstanding shares of our Series B preferred stock or the holders thereof without the affirmative vote of not less than two-thirds of the issued and outstanding shares of our Series B preferred stock.

Series 1 Preferred Shares - Redeemable minority interest

In conjunction with our acquisition of Global, we assumed the preferred share obligation comprised of 1,000,000 Series 2 non-voting Preferred Shares. With the sale of the Global entity in May of 2004, the Global Series 2 Preferred Shares were cancelled, and replaced with substantially equivalent Series 1 Preferred Shares (Preferred Shares) issued by FuelCell Energy, Ltd. As discussed in more detail within Note 1, Series 1 Preferred shares, are accounted for as a redeemable minority interest in FuelCell Energy, Ltd. The Series 1 Preferred shares include embedded derivatives that require bifurcation from the host contract and separate accounting in accordance with SFAS 133, Accounting for Derivative Instruments and Hedging Activities, because they are not clearly and closely related to the characteristics of the Series 1 Preferred shares. Specifically, the embedded derivatives requiring bifurcation from the host contract are the conversion feature of the security and the variable dividend obligation. The derivatives embedded within the Series 1 Preferred shares are discussed in more detail below.

As of November 3, 2003, the acquisition date of Global, the fair value of the Series 1 Preferred shares was determined using the income approach to estimate the fair value of the securities based on expected future economic benefits. In applying this method, cash flows are estimated for the life of the securities and then discounted to present value to arrive at an indication of fair value. Amounts projected and then discounted included future dividend payments and conversion of the securities in 2020. Implicit in this valuation are certain assumptions regarding timing and payment of dividends and the ultimate conversion of the securities. Because the Series 1 Preferred shares were issued as a replacement of the Series 2 Preferred shares with equivalent terms and dividend requirements, the Company determined that the fair value of the Series 1 Preferred shares determined on the acquisition date of Global was equivalent to the Series 2 Preferred shares. The fair value of the Series 1 Preferred shares is adjusted quarterly to reflect dividend payments and accretion of the fair value discount. As of October 31, 2008, the Series 1 Preferred shares had an accreted value of \$13.3 million.

The significant terms of the Series 1 Preferred stock include the following:

Voting Rights - The holders of the Series 1 Preferred shares are not entitled to any voting rights or to receive notice of or to attend any meeting of the shareholders of FuelCell Energy, Ltd., but shall be entitled to receive notice of meetings of shareholders of FuelCell Energy, Ltd. called for the purpose of authorizing the dissolution or sale of its assets or a substantial part thereof.

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Dividends – Quarterly dividends of Cdn.\$312,500 accrue on the Series 1 Preferred shares (subject to possible reduction pursuant to the terms of the Series 1 Preferred shares on account of increases in the price of our common stock). We have agreed to pay a minimum of Cdn.\$500,000 in cash or common stock annually to Enbridge, Inc. (“Enbridge”), the sole current holder of the Series 1 Preferred shares, as long as Enbridge holds these shares. Interest accrues on cumulative unpaid dividends at a 2.45% quarterly rate, compounded quarterly, until payment thereof. All cumulative unpaid dividends must be paid by December 31, 2010. Using an exchange rate of Cdn.\$0.83 to U.S.\$1.00 (exchange rate on October 31, 2008), cumulative unpaid dividends and accrued interest of approximately \$7.4 million on the Series 1 preferred shares were outstanding as of October 31, 2008. Subsequent to 2010, FuelCell Energy, Ltd. would be required to pay annual dividend amounts totaling Cdn.\$1.25 million so long as the Series 1 Preferred shares remain outstanding. We have guaranteed the dividend obligations to the Series 1 Preferred shareholders. During the year ended October 31, 2008, we paid cash dividends totaling Cdn. \$500,000 to Enbridge.

Dividend and accrued interest payments can be made in cash or common stock, at the option of FuelCell Energy, Ltd., and such shares issuable may be unregistered. If the Company elects to make such payments using shares of common stock, the number of common shares is determined by dividing the cash dividend obligation by 95% of the volume weighted average price in U.S. dollars at which the common shares have been traded on NASDAQ during the 20 consecutive trading days preceding the end of the calendar quarter for which such dividend in common shares is to be paid converted into Canadian dollars using the Bank of Canada’s noon rate of exchange on the day of determination.

Redemption - FuelCell Energy, Ltd., at its option, may redeem the whole or any part of the Series 1 Preferred shares if the trading price of our common stock for a calculated period is not less than 120% of the current conversion price and any accrued and unpaid dividends. On and after July 31, 2010, the Series 1 Preferred shares are redeemable by FuelCell Energy, Ltd. for Cdn.\$25 per share and any accrued and unpaid dividends. Holders of the Series 1 Preferred shares do not have any mandatory or conditional redemption rights.

Liquidation or Dissolution - In the event of the liquidation or dissolution of the Company, the holder of Series 1 Preferred shares will be entitled to receive a priority of Cdn.\$25,000,000 and any accrued and unpaid dividends. These liquidation obligations have been guaranteed by the Company.

Conversion - A holder of Series 1 Preferred shares has the right to convert such shares into fully paid and non-assessable common stock of the Company at the following conversion prices:

- Cdn\$120.22 per share of our common stock until July 31, 2010;
- Cdn\$129.46 per share of our common stock after July 31, 2010 until July 31, 2015;
- Cdn\$138.71 per share of our common stock after July 31, 2015 until July 31, 2020; and
- at any time after July 31, 2020, at a price equal to 95% of the then current market price (in Cdn.\$) of shares of our common stock at the time of conversion.

Conditions resulting in adjustments to conversion rate – The conversion rate set forth above shall be adjusted if we: (i) split our shares of common stock; (ii) pay a stock dividend; (iii) issue rights, options or other convertible securities to our common stockholders enabling them to acquire our common stock at a price less than 95% of the then-current price; or (iii) fix a record date to distribute to our common stockholders shares of any class of securities, indebtedness or assets.

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Derivative liability related to Series 1 Preferred Shares

In accordance with SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities, the conversion feature and variable dividend contained in the terms governing the Series 1 Preferred shares are not clearly and closely related to the characteristics of the Series 1 Preferred shares. Accordingly, these features qualified as embedded derivative instruments and, because they do not qualify for any scope exception within SFAS No. 133, they are required to be accounted for separately and recorded as derivative financial instruments.

The conversion feature is valued using a lattice model. This is a one-factor model used to project stochastic stock prices, while risk free rates, discount rates and foreign exchange rates are deterministic factors. Based on the pay-off profiles of the Series 1 Preferred security, it is assumed that the Company will exercise the call option to force conversion in 2020. Conversion after 2020 delivers a fixed pay-off to the investor, and is modeled as a fixed payment in 2020. The cumulative dividend is modeled as a quarterly cash dividend component (to satisfy minimum dividend payment requirement), and a one-time cumulative dividend payment in 2010. The cumulative dividend is compounded at a 2.45% quarterly rate. Call option strikes are adjusted for the cumulative dividend and the conversion ratio is adjusted by the accreted notional until 2010.

The variable dividend is valued using a Monte Carlo simulation model. The embedded derivative is defined as the difference between the value of a normal 5% quarterly dividend payment stream, and the value of stock price and foreign exchange rate linked dividend payment stream. Future stock prices and exchange rates are simulated following geometric Brownian motion to determine the stock/FX linked dividend going out to the year 2020, when the preferred security is assumed to be force converted.

The assumptions used in both valuation models discussed above include historical stock price volatility, risk-free interest rate and a credit spread based on the yield indexes of technology high yield bonds, foreign exchange volatility as the security is denominated in Canadian dollars, and the closing price of the Company's common stock to determine the fair value of the derivatives. The aggregate fair value of these derivatives included within Long-term debt and other liabilities on our Consolidated Balance Sheet as of October 31, 2008 and 2007 was \$0.3 million.

Note 12. Segment Information and Major Customers

Under SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information," we use the "management" approach to reporting segments. The management approach designates the internal organization that is used by management for making operating decisions and assessing performance as the source of reportable segments. SFAS No. 131 also requires disclosures about products and services, geographic areas, and major customers. Under SFAS No. 131, we have identified one business segment: fuel cell power plant production and research.

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### Enterprise-wide Information

Enterprise-wide information provided on geographic revenues is based on the customer's ordering location. The following table presents net revenues by country:

	Years ended October 31,		
	2008	2007	2006
<b>Revenues:</b>			
U.S.	\$ 50,705	\$ 31,687	\$ 26,584
Canada	159	3,587	—
Germany	2,856	5,153	4,097
Japan	855	1,363	1,660
South Korea	46,160	6,444	947
<b>Total</b>	<b>\$ 100,735</b>	<b>\$ 48,234</b>	<b>\$ 33,288</b>

### Information about Major Customers

We contract with a small number of customers for the sale of our products or research and development contracts. During fiscal 2008, we had individual customers that accounted for \$46.2 million and \$16.7 million of total revenues. During fiscal 2007, we had individual customers that accounted for \$15.1 million, \$6.4 million and \$5.2 million of total revenues. During fiscal 2006, we had individual customers that accounted for \$11.4 million and \$4.1 million of total revenues.

As of October 31, 2008, we had an individual customer that accounted for approximately \$11.7 million of total accounts receivable on our Consolidated Balance Sheet.

### Note 13. Benefit Plans

The Company has an employee savings plan, shareholder approved equity incentive plans and a shareholder approved Section 423 Stock Purchase Plan (the "ESPP"), which are described in more detail below.

#### Employee Savings Plans

The Capital Accumulation Plan (the "Plan") for employees of FuelCell Energy, Inc. was established by us on January 19, 1987 and was last amended in December 2006. A three-member committee administers the Plan. The Plan is a 401(k) plan covering our full time employees and provides for tax-deferred salary deductions for eligible employees (beginning the first month following an employee's hire date). Employees may choose to make voluntary contributions of their annual compensation to the Plan, limited to an annual maximum amount as set periodically by the Internal Revenue Service. We provide matching contributions equal to the employee's deferred compensation, up to a maximum of 6 percent of the employee's annual compensation. Participants are required to contribute a minimum of 3 percent in order to be eligible to participate and receive a Company match. Company contributions begin vesting after one year and are fully vested after five years. Under the Plan, there is no option available to the employee to receive or purchase our common stock. Under this plan, we charged to expense \$1.7 million during the fiscal year ended October 31, 2008 and \$1.3 million during fiscal years ended October 31, 2007 and 2006.





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### Equity Incentive Plans

The Board adopted the 1998 and 2006 Equity Incentive Plans (collectively, “the Plans”). Under the terms of the Plans, 8.5 million shares of common stock may be granted as options or stock to our officers, key employees and directors. As of October 31, 2008, 0.9 million shares were available for grant. Pursuant to the Plans, the Board is authorized to grant incentive stock options or nonqualified options and stock appreciation rights to our officers and key employees and may grant nonqualified options and stock appreciation rights to our directors. Stock options and stock appreciation rights have restrictions as to transferability. The option exercise price shall be fixed by the Board but in the case of incentive stock options, shall not be less than 100 percent of the fair market value of the shares subject to the option on the date the option is granted. Stock appreciation rights may be granted in conjunction with options granted under the Plans. Stock options that have been granted are generally exercisable commencing one year after grant at the rate of 25 percent of such shares in each succeeding year and have a ten-year maximum term. There were no stock appreciation rights outstanding at October 31, 2008 or 2007.

On November 1, 2005, we adopted SFAS No. 123R, “Share-Based Payment” utilizing the modified prospective approach. This statement supersedes APB Opinion No. 25, “Accounting for Stock Issued to Employees”, which we used to account for share-based compensation transactions prior to November 1, 2005. The compensation expense for Share-Based Plans is recognized on a straight-line basis over the vesting period of each award.

Share-based compensation included in the Consolidated Statements of Operations for the fiscal years ended October 31, 2008, 2007 and 2006 was as follows:

	2008	2007	2006
Cost of product sales and revenues	\$ 1,004	\$ 714	\$ 703
Cost of research and development contracts	235	297	206
General and administrative expense	3,287	3,030	2,634
Research and development expense	940	1,085	807
Total share-based compensation	\$ 5,466	\$ 5,126	\$ 4,350

Certain share-based compensation is capitalized and included on the Consolidated Balance Sheets. These amounts were not material during the periods presented above. The fair value of each option award is estimated on the date of grant using the Black-Scholes option valuation model that uses the assumptions noted in the following table. Expected volatility for fiscal 2008 and 2007 is based on a combination of the historical volatility of the Company’s stock and the implied volatility from traded options. Expected volatility for fiscal 2006 is based on the historical volatility of the Company’s stock. We use historical data to estimate the expected term of options granted.

	2008	2007	2006
Expected life (in years)	6.7	6.6	6.3
Risk-free interest rate	3.2%	4.5%	4.6%
Volatility	64.0%	60.8%	56.6%
Dividend yield	0%	0%	0%

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The following table summarizes the Plans' stock option activity for the year ended October 31, 2008:

	Number of options	Weighted average option price
Outstanding at October 31, 2007	5,325,341	\$ 11.11
Granted	1,273,928	8.58
Exercised	(323,375)	3.19
Cancelled	(308,681)	11.31
Outstanding at October 31, 2008	5,967,213	\$ 10.99

The weighted average grant-date fair value per share for options granted during the periods ended October 31, 2008, 2007 and 2006 was \$5.44, \$4.62 and \$5.91, respectively. The total intrinsic value of both options outstanding and options exercisable at October 31, 2008 was \$0.3 million. The total intrinsic value of options exercised during the periods ended October 31, 2008, 2007 and 2006 was \$2.2 million, \$7.3 million and \$2.1 million, respectively.

The following table summarizes information about stock options outstanding and exercisable at October 31, 2008:

Range of exercise prices	Options Outstanding			Options Exercisable	
	Number outstanding	Weighted average remaining contractual life	Weighted average exercise price (\$)	Number exercisable	Weighted average exercise price (\$)
\$0.27 - \$ 5.10	106,000	0.4	1.63	106,000	1.63
\$5.11 - \$ 9.92	3,485,612	7.5	7.95	1,494,810	7.65
\$9.93 - \$ 14.74	1,590,983	5.5	12.16	1,267,855	12.58
\$14.75 - \$ 19.56	310,618	2.4	16.85	310,618	16.85
\$19.57 - \$ 24.39	219,000	2.5	23.01	219,000	23.01
\$24.40 - \$ 29.21	27,000	2.2	26.15	27,000	26.15
\$29.22 - \$ 34.03	164,000	2.1	29.91	164,000	29.91
\$34.04 - \$ 48.49	64,000	1.9	38.50	64,000	38.50
	5,967,213	6.2	13.32	3,653,283	12.57

As of October 31, 2008, total compensation cost related to nonvested stock options not yet recognized was \$9.1 million, which is expected to be recognized over the next 2.4 years on a weighted-average basis.

During fiscal 2008 and 2007, we issued 9,387 and 8,391 shares of common stock, respectively, with values of \$0.07 million in both periods to directors as compensation in lieu of cash. These shares were fully vested at the date of grant.

Employee Stock Purchase Plan

Our shareholders adopted a Section 423 Stock Purchase Plan (the "ESPP") on April 30, 1993, which has been amended from time to time by the Board. The total shares allocated to the ESPP are 900,000. Under the ESPP, eligible employees have the right to subscribe to purchase shares of common stock at the lesser of 85 percent of the high and low market prices on the first day of the purchase period or the last day of the purchase period and such purchased shares have a six month vesting period. As of October 31, 2008, there were 267,217 shares of Common Stock reserved for issuance under the ESPP. These shares may be adjusted for any future stock splits.

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ESPP activity for the year ended October 31, 2008 was as follows:

	Number of Shares
Balance at October 31, 2007	308,270
Issued @ \$5.67	(25,716)
Issued @ \$7.51	(15,337)
 Balance at October 31, 2008	 267,217

The weighted-average grant date fair value of shares under the ESPP during fiscal 2008 was \$3.28.

The fair value of shares under the ESPP are determined at the grant date using the Black-Scholes option-pricing model with the following weighted average assumptions:

	2008	2007	2006
Expected life (in years)	.5	.5	.5
Risk-free interest rate	2.1%	5.06%	4.6%
Volatility	68.9%	46.7%	50.2%
Dividend yield	0%	0%	0%

#### Incentive Compensation

Stock may be issued to employees as part of the annual incentive bonus. During fiscal 2008 and 2007, we issued shares of common stock totaling 140,271 and 133,419, respectively, with values of \$1.1 million and \$0.9 million, respectively, as incentive bonus (in lieu of cash).

#### Note 14. Income Taxes

The components of loss from continuing operations before income taxes for the fiscal years ended October 31, 2008, 2007 and 2006 are as follows:

	2008	2007	2006
U.S.	\$ (91,500)	\$ (66,988)	\$ (76,098)
Foreign	(1,857)	(1,686)	(7)
Loss before income taxes	\$ (93,357)	\$ (68,674)	\$ (76,105)

There was no current or deferred federal income tax expense (benefit) for the years ended October 31, 2008, 2007 and 2006. Franchise tax expense, which is included in administrative and selling expenses, was \$0.2 million, \$0.4 million and \$0.3 million for the years ended October 31, 2008, 2007 and 2006, respectively.



## FUELCELL ENERGY, INC.

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The reconciliation of the federal statutory income tax rate to our effective income tax rate for the years ended October 31, 2008, 2007 and 2006 was as follows:

	2008	2007	2006
Statutory federal income tax rate	(34.0)%	(34.0)%	(34.0)%
State Taxes Net of Federal Benefit	(3.44)%	(4.82)%	(11.73)%
Net Operating Loss True-up	(1.27)%	—	—
Nondeductible Expenditures	1.37%	1.96%	0.46%
Other, net	0.70%	0.84%	0.69%
Valuation Allowance	36.64%	36.03%	44.58%
Effective income tax rate	0.0%	0.0%	0.0%

Our federal and state deferred tax assets and liabilities consisted of the following at October 31, 2008 and 2007:

	2008	2007
Deferred tax assets:		
Compensation and benefit accruals	\$ 3,689	\$ 2,686
Bad debt and other reserves	1,655	1,179
Capital loss and tax credit carryforwards	4,754	4,452
Investment in Versa	2,138	1,414
Net operating losses	166,555	138,308
Lower of cost or market inventory reserves	5,001	6,839
Gross deferred tax assets:	183,792	154,878
Valuation allowance	(180,507)	(150,963)
Deferred tax assets after valuation allowance	3,285	3,915
Deferred tax liability:		
Investment in Partnerships	(547)	(932)
Accumulated depreciation	(2,738)	(2,983)
Gross deferred tax liability	(3,285)	(3,915)
Net deferred tax assets (state and federal)	\$ —	\$ —

We continually evaluate our deferred tax assets as to whether it is “more likely than not” that the deferred tax assets will be realized. In assessing the realizability of our deferred tax assets, management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies. Based on the projections for future taxable income over the periods in which the deferred tax assets are realizable, management believes that significant uncertainty exists surrounding the recoverability of the deferred tax assets. As a result, we recorded a full valuation allowance against our net deferred tax assets. Approximately \$4.6 million of the valuation allowance will reduce additional paid in capital upon subsequent recognition of any related tax benefits.





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At October 31, 2008, we had available, for federal and state income tax purposes, net operating loss carryforwards of approximately \$448 million and \$343 million, respectively, for which a portion of the net operating loss has not been recognized under FAS 123R. The Federal net operating loss carryforwards expire in varying amounts from 2020 through 2028 while state net operating loss carryforwards expire in varying amounts from 2011 through 2028. Additionally, we had approximately \$7 million of state tax credits available as of October 31, 2008, which are available to carry forward to future years and expire at various times beginning in 2009.

Certain transactions involving the Company's beneficial ownership occurred in fiscal 2008 and prior years, which could have resulted in a stock ownership change for purposes of Section 382 of the Internal Revenue Code of 1986, as amended. We have determined that there has been no ownership change as of the end of our 2007 fiscal year under Section 382. We have not completed a detailed Section 382 study to determine if any of the NOL and credits generated will be subject to limitation for fiscal 2008, but because of our tax position, no material ownership percentage changes and full valuation allowance, we would not expect any impact to our Consolidated Statement of Operations.

As discussed in Note 1, we adopted FIN 48 as of November 1, 2007. There was no cumulative effect of the adoption of FIN 48 on our retained earnings, although our net operating loss carryovers and the related valuation allowance has been adjusted by \$15.7 million.

The total liability for unrecognized tax benefits upon adoption and at October 31, 2008 was \$15.7 million. The amount of unrecognized tax benefit is directly associated with a tax position taken in a year in which federal and state net operating loss carryforwards were generated. Accordingly, the amount of unrecognized tax benefit has been presented as a reduction in the reported amounts of our federal and state net operating loss carryforwards. There has been no provision for interest or penalties because of our significant tax loss carryforward position. It is the company's policy to record interest and penalties on unrecognized tax benefits as income taxes.

We file income tax returns in the U.S. and various states, primarily Connecticut and California. We are open to examination by the Internal Revenue Service and various states in which we file for fiscal years 1998 to the present and primarily from 2001 to the present, respectively. These tax years are still open to audit as net operating losses incurred in those years may be subject to examination. The Company is currently not under any income tax examinations.

Note 15. Earnings Per Share

Basic and diluted earnings per share are calculated using the following data:

	2008	2007	2006
Weighted average basic common shares	68,570,689	61,990,555	51,046,843
Effect of dilutive securities(1)	—	—	—
Weighted average basic common shares adjusted for diluted calculations	68,570,689	61,990,555	51,046,843

We computed earnings per share without consideration to potentially dilutive instruments due to the fact that losses incurred would make them antidilutive. Future potentially dilutive stock options that were in-the-money at October 31, 2008, 2007 and 2006 totaled 0.1 million, 2.9 million and 1.9 million, respectively. Future potentially dilutive stock options that were not in-the-money at October 31, 2008, 2007 and 2006 totaled 5.9 million, 2.4 million and 4.5 million, respectively. We also have future potentially dilutive warrants issued, which vest and expire over time. As of October 31, 2008, 7,500 warrants were vested with an exercise price of \$9.89. At October 31, 2008, we also had 500,000 unvested warrants. Refer to Note 10 for further information on warrants.

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Note 16. Commitments and Contingencies

Lease agreements

In December 2006, we entered into a master equipment lease agreement for the lease of equipment. The lease agreement allows for an aggregate cost of equipment up to \$2.5 million. As of October 31, 2008, we had capital lease obligations under this lease agreement of \$0.4 million. Lease payment terms are thirty six months from the date of acceptance for leased equipment.

We also lease certain computer and office equipment, the Torrington, CT manufacturing facility and additional manufacturing space in Danbury, CT, under operating leases expiring on various dates through 2015. Rent expense was \$1.3 million, \$1.1 million and \$1.2 million for the fiscal years ended October 2008, 2007 and 2006, respectively.

For rental and lease agreements as of October 31, 2008, aggregate minimum annual payments for the years subsequent to October 31, 2008 are as follows:

2009	\$ 1,184
2010	710
2011	518
2012	448
2013	448
Thereafter	971
	\$ 4,279

Service and warranty agreements

Once a fuel cell is installed at a customer site, we generally provide a warranty period on certain components. As the product models are still in development and we have limited operating experience on the fielded fleet, warranty costs are expensed when they can be reasonably estimated or as incurred.

In addition to the standard product warranty, we have contracted with certain customers to provide long-term service for fuel cell power plants ranging from one to 13 years. Our standard service agreement term is five years and may be renewed if the parties mutually agree on future pricing. Pricing for service contracts is based upon the markets in which we compete as well as estimates of future costs. Given our products' early stage of development, actual expenses could be materially different than the contract price resulting in a loss.

Under the provisions of these contracts, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Should the power plant not meet the minimum operating levels, we may be required to replace the fuel cell stack with a new or used replacement. Our contractual liability under service agreements is limited to amount of service fees payable under the contract. We have incurred and expect to continue to incur costs in excess of revenues in order to maintain customer power plants under our service agreements. Service agreement and aftermarket costs, net of revenues totaled approximately \$19.9 million in fiscal 2008 compared to \$10.0 million in fiscal 2007.



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In fiscal 2008, our new five-year fuel cell stack went into production, extending the expected life by two years. Service agreements related to power plants that have the five-year stack design are not expected to require a stack change to continue to meet minimum operating levels although we have limited operating experience with these products. Power plants that do not have the new design may require a stack replacement and we expect to continue to incur costs for stack changes as the older three-year stacks reach end of life.

#### Power purchase agreements

Under the terms of our power purchase agreements, customers agree to purchase power from our fuel cell power plants at negotiated rates, generally for periods of five to ten years. Electricity rates are generally a function of the customer's current and future electricity pricing available from the grid. Revenues are earned and collected under these PPA's as power is produced. As owner of the power plants in these PPA entities, we are responsible for all operating costs necessary to maintain, monitor and repair the power plants. Under certain agreements, we are also responsible for procuring fuel, generally natural gas, to run the power plants. We believe that the assets, including fuel cell power plants in these PPA entities, are carried at fair value on the Consolidated Balance Sheets based on our estimates of future revenues and expenses. Should actual results differ from our estimates, our results of operations could be negatively impacted. We are not required to produce minimum amounts of power under our PPA agreements and we have the right to terminate PPA agreements by giving written notice to the customer, subject to certain exit costs.

#### Note 17. Supplemental Cash Flow Information

The following represents supplemental cash flow information:

	Year Ended October 31,		
	2008	2007	2006
<b>Cash paid during the period for:</b>			
Interest	\$ 101	\$ 84	\$ 102
<b>Supplemental disclosure of non-cash investing and financing activities:</b>			
Impact on investing activities resulting from the sale of a power plant to Sierra Nevada Brewing Co.(1)	\$ —	\$ (3,943)	\$ —
Accrued Employee Stock Purchase Plan	146	128	140
Common stock issued for employee annual incentive bonus	1,050	942	717

(1) In December 2006, we completed the sale of the 1 MW power plant that had been operating under a power purchase agreement to the Sierra Nevada Brewing Co. The net book value of the asset of approximately \$3.9 million, which was recorded in property, plant and equipment as of October 31, 2006, was recorded in cost of product sales and revenues upon the sale of the asset. In addition, this sale resulted in the assumption by the buyer of certain of our incentive fund liabilities resulting in a \$2.2 million decrease in deferred revenue liabilities, which was recorded in cost of product sales and revenues. Net cash proceeds from this transaction were \$1.8 million, which is included within operating activities on the Consolidated Statement of Cash Flows. Refer also to Note 6 - Property, Plant and Equipment.



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## Note 18. Quarterly Information (Unaudited)

The following tables contain selected unaudited Consolidated Statement of Operations data for each quarter of fiscal years 2008 and 2007. We believe that the following information reflects all normal recurring adjustments necessary for a fair presentation of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results to be expected for any future period.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
<b>Year ended October 31, 2008:</b>					
Revenues	\$ 15,019	\$ 31,643	\$ 27,904	\$ 26,169	\$ 100,735
Operating loss	(19,128)	(24,704)	(26,146)	(22,823)	(92,801)
Net loss	(18,916)	(24,977)	(25,980)	(23,484)	(93,357)
Preferred stock dividends	(802)	(802)	(802)	(802)	(3,208)
Net loss to common shareholders	(19,718)	(25,779)	(26,782)	(24,286)	(96,565)
<b>Loss per basic and diluted common share:</b>					
Net loss to common shareholders	\$ (0.29)	\$ (0.38)	\$ (0.39)	\$ (0.35)	\$ (1.41)
<b>Year ended October 31, 2007:</b>					
Revenues	\$ 6,834	\$ 11,383	\$ 13,544	\$ 16,473	\$ 48,234
Operating loss	(19,764)	(18,534)	(17,733)	(17,114)	(73,145)
Net loss	(19,236)	(18,004)	(15,440)	(15,994)	(68,674)
Preferred stock dividends	(802)	(802)	(802)	(802)	(3,208)
Net loss to common shareholders	(20,038)	(18,806)	(16,242)	(16,796)	(71,882)
<b>Loss per basic and diluted common share:</b>					
Net loss to common shareholders	\$ (0.38)	\$ (0.32)	\$ (0.24)	\$ (0.25)	\$ (1.16)

## Note 19. Subsequent Events

## Government Research and Development Contracts

In December 2008, subsequent to the Company's fiscal year end, FuelCell Energy was awarded a contract for Phase II of the U.S. Department of Energy's (DOE) Office of Fossil Energy Solid State Energy Conversion Alliance (SECA) Coal-Based Systems Cooperative Agreement. The total cost of this phase of the program is \$30.2 million of which \$21 million will be funded by the DOE. The first \$5 million of the program has been funded and will be paid as expenses are billed to the government.

Phase II extends from January 2009 through September 2010 and seeks to build a minimum 25 kW solid oxide fuel cell (SOFC) stack that meets certain cost and performance requirements. The new stack must be suitable for integration into a 250 kW - 1 MW fuel cell power module and a 5 MW proof-of-concept system operating on coal-based syngas (gas created from reacting coal with high temperature coal or steam). The module and proof-of-concept system will be designed, fabricated, and tested in subsequent phases.

Investment in Versa Power Systems, Inc.

In November 2008, the Company invested \$0.6 million in Versa in the form of a convertible note. This investment would bring the Company's ownership percentage in Versa to approximately 44% should this and the Company's other convertible note (see Note 2 – Equity Investments) be converted into common stock. If not converted, the \$0.6 million note and all accrued interest thereon is due November 2018 unless certain prepayment events occur. In conjunction with this investment the Company also received warrants for the right to purchase an additional 822 shares of common stock with an exercise price of \$146 per share. These warrants represent derivatives and will be accounted for consistent with other warrants held by the Company in Versa Power Systems. Under the terms of the convertible notes held by the Company, the principal and interest shall be repaid in cash upon a change of control or certain other significant events.



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

None.

Item 9A. CONTROLS AND PROCEDURES

Disclosure controls and procedures.

The Company maintains disclosure controls and procedures, which are designed to provide reasonable assurance that information required to be disclosed in the Company's periodic SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

We carried out an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Company's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the Company's periodic SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

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Management's annual report on internal control over financial reporting.

We, as members of management of FuelCell Energy, Inc., and its Subsidiaries (the "Company"), are responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles of the United States of America, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
  - Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Under the supervision and with the participation of management, including our principal executive and financial officers, we assessed the Company's internal control over financial reporting as of October 31, 2008, based on criteria for effective internal control over financial reporting established in Internal Control — Integrated Framework, issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this assessment, we have concluded that the Company maintained effective internal control over financial reporting as of October 31, 2008 based on the specified criteria.

/s/ R. Daniel Brdar  
R. Daniel Brdar  
Chairman, President and Chief Executive  
Officer

January 9, 2009

/s/ Joseph G. Mahler  
Joseph G. Mahler  
Senior Vice President and Chief Financial  
Officer

January 9, 2009

Changes in internal control over financial reporting.

During the most recent fiscal quarter, there has not occurred any change in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required under this Item is incorporated by reference to the Company's 2009 Proxy Statement to be filed with the SEC within 120 days from fiscal year end.

Item 11. Executive Compensation

Information required under this Item is incorporated by reference to the Company's 2009 Proxy Statement to be filed with the SEC within 120 days from fiscal year end.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required under this Item is incorporated by reference to the Company's 2009 Proxy Statement to be filed with the SEC within 120 days from fiscal year end.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information required under this Item is incorporated by reference to the Company's 2009 Proxy Statement to be filed with the SEC within 120 days from fiscal year end.

Item 14. Principal Accounting Fees and Services

Information required under this Item is incorporated by reference to the Company's 2009 Proxy Statement to be filed with the SEC within 120 days from fiscal year end.

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PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS

The financial statements of the Company filed as part of this report on Form 10-K are set forth in the Index to Financial Statements under Part II, Item 8 of this Form 10-K.

FINANCIAL STATEMENT SCHEDULES

Supplemental schedules are not provided because of the absence of conditions under which they are required or because the required information is given in the financial statements or notes thereto.

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EXHIBITS

EXHIBITS TO THE 10-K

Exhibit No.	Description
3.1	Certificate of Incorporation of the Registrant, as amended, July 12, 1999 (incorporated by reference to exhibit of the same number contained in the Company's Form 8-K dated September 21, 1999)
3.1.1	Certificate of Amendment of the Certificate of Incorporation of the Registrant, dated October 31, 2003 (incorporated by reference to exhibit of the same number contained in the Company's Form 8-K dated November 4, 2003)
3.2	Restated By-Laws of the Registrant, dated July 13, 1999 (incorporated by reference to exhibit of the same number contained in the Company's Form 8-K dated September 21, 1999)
4	Specimen of Common Share Certificate (incorporated by reference to exhibit of the same number contained in the Company's Annual Report on Form 10K/A for fiscal year ended October 31, 1999)
4.1	Securities Purchase Agreement dated as of February 7, 2007, by and between FuelCell Energy, Inc. and POSCO Power (incorporated by reference to exhibit of the same number contained in the Company's Form 8-K dated February 20, 2007)
10.21	*FuelCell Energy, Inc. 1988 Stock Option Plan (incorporated by reference to exhibit of the same number contained in the Company's Amendment No. 1 to its Registration Statement on Form S-1 (File No. 33-47233) dated June 1, 1992)
10.36	*The FuelCell Energy, Inc. Section 423 Stock Purchase Plan (incorporated by reference to exhibit of the same number contained in the Company's 10-KSB for fiscal year ended October 31, 1994 dated January 18, 1995)
10.41	*Amendment No. 2 to the FuelCell Energy, Inc. Section 423 Stock Purchase Plan (incorporated by reference to exhibit of the same number contained in the Company's 10-Q for the period ended April 30, 1996 dated June 13, 1996)
10.42	*Amendments to the FuelCell Energy, Inc. 1988 Stock Option Plan (incorporated by reference to exhibit of the same number contained in the Company's 10-Q for the period ended April 30, 1996 dated June 13, 1996)
10.48	*Employment Agreement between FuelCell Energy, Inc. and the Chief Financial Officer, Treasurer and Secretary, dated October 5, 1998 (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the fiscal year ended October 31, 1998)
10.54	*The FuelCell Energy, Inc. 1998 Equity Incentive Plan (incorporated by reference to exhibit of the same number contained in the Company's 10-Q for the period ended July 31, 1998)

- 10.55 Lease agreement, dated March 8, 2000, between the Company and Technology Park Associates, L.L.C. (incorporated by reference to exhibit of the same number contained in the Company's 10-Q for the period ended April 30, 2000)
- 10.56 Security agreement, dated June 30, 2000, between the Company and the Connecticut Development Authority (incorporated by reference to exhibit of the same number contained in the Company's 10-Q for the period ended July 31, 2000)
- 10.57 Loan agreement, dated June 30, 2000, between the Company and the Connecticut Development Authority (incorporated by reference to exhibit of the same number contained in the Company's 10-Q for the period ended July 31, 2000)

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EXHIBITS TO THE 10-K

Exhibit No.	Description
10.60	* Employment Agreement, dated January 12, 2006, between R. Daniel Brdar (incorporated by reference to exhibit of the same number contained in the Company's 8-K dated January 17, 2006).
14	Code of Ethics applicable to the Company's principal executive officer, principal financial officer and principal accounting officer. (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the year ended October 31, 2004)
21	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002
	* Management Contract or Compensatory Plan or Arrangement
	** Confidential Treatment has been granted for portions of this document

## SIGNATURES

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

FUELCELL ENERGY, INC.

/s/ R. Daniel Brdar  
 R. Daniel Brdar                      Dated: January 14, 2009  
 Chairman, President and Chief  
 Executive Officer

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/ R. Daniel Brdar R. Daniel Brdar	Chairman, President, and Chief Executive Officer (Principal Executive Officer)	January 14, 2009
/s/ Joseph G. Mahler Joseph G. Mahler	Senior Vice President, Chief Financial Officer, Corporate Secretary and Treasurer (Principal Accounting and Financial Officer)	January 14, 2009
/s/ Christof von Branconi Christof von Branconi	Director	January 13, 2009
/s/ Richard A. Bromley Richard A. Bromley	Director	January 13, 2009
/s/ Glenn H. Epstein Glenn H. Epstein	Director	January 13, 2009
/s/ James H. England James H. England	Director	January 13, 2009



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Signature	Capacity	Date
/s/ James D. Gerson James D. Gerson	Director	January 13, 2009
/s/ Thomas L. Kempner Thomas L. Kempner	Director	January 13, 2009
/s/ William A. Lawson William A. Lawson	Director	January 13, 2009
/s/ George K. Petty George K. Petty	Director	January 13, 2009
/s/ John A. Rolls John A. Rolls	Director	January 13, 2009
/s/ Togo Dennis West Jr. Togo Dennis West Jr.	Director	January 13, 2009

INDEX OF EXHIBITS

Exhibit 21	Subsidiaries of the registrant
Exhibit 23.1	Consent of Independent Registered Public Accounting Firm
Exhibit 31.1	CEO Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
Exhibit 31.2	CFO Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
Exhibit 32.1	CEO Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 32.2	CFO Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002