

FUELCELL ENERGY INC

Form 10-K

January 17, 2012

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
FORM 10-K

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

**For the fiscal year ended October 31, 2011  
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 No.)

**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:

Title of each class  
Common Stock, \$.0001 par value per share

Name of each exchange on which registered  
The Nasdaq Stock Market LLC (Nasdaq Global  
Market)

Securities registered pursuant to Section 12(g) of the Act: None

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  
Exchange Act. Yes ☐ No ☐

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if  
any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during  
the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  
☐ No ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or  
a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting

company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐

Smaller reporting  
company ☐

(Do not check if a smaller  
reporting company)

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

As of April 29, 2011, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$195,848,810 based on the closing sale price of \$1.71 as reported on the NASDAQ Global Market.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

Class	Outstanding at January 6, 2012
Common Stock, \$.0001 par value per share	139,494,023 shares

**DOCUMENTS INCORPORATED BY REFERENCE**

Document	Parts Into Which Incorporated
Annual Report to Shareholders for the Fiscal Year Ended October 31, 2011 (Annual Report)	Parts I, II, and IV
Proxy Statement for the Annual Meeting of Shareholders to be held April 5, 2012 (Proxy Statement)	Part III

**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 other similar expressions are intended to identify forward-looking statements. Such statements relate to the development and commercialization of FuelCell Energy, Inc.'s and its subsidiaries ( FuelCell Energy , Company , we , us and our ) technology and products, future funding under government research and development contracts, future financing for projects including publicly issued bonds, equity and debt investments by investors and commercial bank financing, 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 manufacturing, 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, competition and changes in accounting policies or practices adopted voluntarily or as required by accounting principles generally accepted in the United States, as well as other risks contained under Item 1A Risk Factors 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 new products or technology, once developed, will be commercially successful, that our existing DFC power plants will remain 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 Item 1A Risk Factors of this report.

We define distributed generation as small (typically 75 megawatts or less) electric generation power plants 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 ); kilowatt ( kW ) and megawatt ( MW ) numbers designate nominal or rated capacity of the referenced power plant; efficiency or electrical efficiency means the ratio of the electrical energy 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 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; kW means 1,000 watts; MW means 1,000,000 watts; kilowatt hour ( kWh ) is equal to 1kW of power supplied to or taken from an electric circuit steadily for one hour; and one British Thermal Unit ( Btu ) is equal to the amount of heat necessary to raise one pound of pure water from 59°F to 60°F 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**

**Availability** A measure of the amount of time a system is available to operate, as a fraction of total calendar time. For power generation equipment, an industry standard (IEEE (The Institute of Electrical and Electronics Engineers) 762, Definitions for Use in Reporting Electric Generating Unit Reliability, Availability and Productivity ) is used to compute availability. *Availability percentage* is calculated as total period hours since commercial acceptance date (mutually agreed upon time period when our Direct FuelCell (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.

**Baseload** Consistent power generation that is available to meet electricity demands around-the-clock. This differs from peak or peaking power generation that is designed to be turned on or off quickly to meet sudden changes in electricity demand, or intermittent power generation such as solar or wind.

**Combined Heat & Power (CHP)** A power plant configuration or mode of operation featuring simultaneous on-site generation from the same unit of fuel of both electricity and heat with the byproduct heat used to produce steam, hot water or heated air for both heating and cooling applications.

**Distributed Generation (DG)** Electric power that is generated where it is needed (distributed throughout the power grid) rather than from a central location. Centrally generated power requires extensive transmission networks that require maintenance and experience efficiency losses during transmission while distributed generation does not.

**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 they are a major precursor to smog production and acid rain. However, one common pollutant, **Nitrogen Dioxide (NO2)**, 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.

**Particulate Matter** Solid or liquid particles emitted into the air that is generally caused by the combustion of materials or dust generating activities. Particulate matter caused by combustion can be harmful to humans as the fine particles of chemicals, acids and metals may get lodged in lung tissue.



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**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 Biogas** Biogas produced in biomass digesters employing bacteria in a heated and controlled oxygen environment. The biogas can be used as a renewable fuel source for Direct FuelCells. Biomass may be generated from municipal wastewater treatment facilities, food or beverage processing, landfills or agricultural waste.

**Sulfur Oxide (SO<sub>x</sub>)** 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. Sox compounds are particulate and acid rain precursors.

**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.

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### **Item 1. BUSINESS**

#### **Overview**

We are a leading integrated fuel cell company with a growing global presence. We design, manufacture, sell, install and service ultra-clean, highly efficient stationary fuel cell power plants for distributed baseload power generation. Our power plants offer scalable on-site power and utility grid support, helping customers solve their energy, environmental and business challenges. Initially a research company, FuelCell Energy was founded in Connecticut in 1969 and became a publicly traded company in 1992. We reincorporated in Delaware in 1999 and began selling commercialized fuel cell power plants in 2003.

Our Company vision is to provide ultra-clean, highly efficient, reliable distributed generation baseload power at a cost per kilowatt hour that is less than the cost of grid-delivered electricity. Our power plants provide electricity that is priced competitively to grid-delivered electricity in certain high cost regions and our strategy is to continue to reduce costs, which is expected to lead to wider adoption of our power plants.

With fully commercialized ultra-clean fuel cell power plants and decades of experience in the industry, we are well positioned to grow our installed base of power plants. Our plants are operating in more than 50 locations worldwide and have generated more than one billion kilowatt hours (kWh) of electricity, which is equivalent to powering more than 90,000 average size U.S. homes for one year. Our installed base and steadily growing backlog exceeds 180 megawatts (MW).

Our customer base includes electric utility companies, municipalities, universities, government entities and businesses in a variety of commercial and industrial enterprises. Our leading geographic markets are South Korea and the United States and we are pursuing expanding opportunities in Asia, Europe, and Canada.

Our Direct FuelCell® (DFC®) power plants use a variety of available fuels to produce electricity electrochemically without combustion in a process that is highly efficient, quiet and produces virtually no pollutants. DFC power plants generate more power and fewer emissions for a given unit of fuel than combustion-based power generation of a similar size, making them economical and environmentally responsible power generation solutions. In addition to electricity, our DFC power plants produce high quality heat that can be used for heating, cooling and other purposes; when used in Combined Heat and Power (CHP) configurations, system efficiencies can reach 90 percent. Unlike solar and wind power, our DFC power plants operate continuously regardless of geography, weather or time of day.

We service two primary markets: ultra-clean power (fuel cells operating on clean natural gas) and renewable power (fuel cells operating on renewable biogas). Our strategy is to expand in the 11 distinct vertical submarkets we have identified and further penetrate our key geographic markets while continuing to reduce product costs and expand our services business created by our increasing installed base of customers. The sale of higher volumes of our products will further reduce costs and increase margins.

In fiscal 2011, the Company made significant progress in growing the business by increasing the production rate, revenues and backlog. Our current annual production rate is 56 MW's. We forecast company profitability at an annual sales volume in the range of 80 to 90 megawatts. This forecast is based on the expected sales mix between complete power plants and fuel cell kits. The annual production capacity of our manufacturing facility is up to 90 megawatts with full utilization under its current configuration. To achieve profitability, demand for our products needs to continue to increase, our installed fleet needs to operate reliably and product costs need to decline.

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### **Products**

#### **Overview**

Our core fuel cell products (Direct FuelCell® or DFC® power plants) offer ultra-clean, highly efficient stationary power generation for customers. Our DFC product line includes the 2.8 MW DFC3000®, the 1.4 MW DFC1500® and the 300 kW DFC300®. Our power plants are scalable for multi-megawatt utility scale applications. We also market multi-megawatt DFC-ERG® power plants for use in natural gas pipeline applications and DFC/Turbine™ power plants for large-load users. The DFC-ERG and DFC/Turbine power plants are our highest-efficiency products and are nearly twice as efficient as the average U.S. central generation fossil fuel power plant. Our entire product line is based on one core carbonate fuel cell technology enabling volume based cost reduction and optimal resource utilization.

Our DFC power plants operate 24 hours per day, seven days per week providing continuous power to both on-site customers and grid-support applications. Our DFC power plants can be part of a total on-site power generation solution with our high efficiency products providing continuous baseload power. Our power plants also complement intermittent power generation, such as solar or wind, or less efficient combustion-based equipment that provides peaking or load following power.

For power plants operating on natural gas, higher fuel efficiency results in lower emissions of carbon dioxide (CO<sub>2</sub>), a greenhouse gas, and also results in less fuel needed per kWh of electricity generated and Btu of heat produced. The high efficiency of the DFC power plant results in significantly less CO<sub>2</sub> per unit of power production compared to the average U.S. fossil fuel power plant. Many government agencies and regulatory bodies classify DFC power plants operating on biogas as carbon neutral due to the renewable nature of the fuel source. Greater efficiency reduces customers' exposure to volatile fuel costs, minimizes operating costs, and provides maximum electrical output from a finite fuel source. DFC power plants achieve electrical efficiencies of 47 percent to 60 percent or higher depending on configuration, location, and application, and up to 90 percent total efficiency in CHP applications.

A DFC power plant includes the fuel cell stack module that produces the electricity and the balance-of-plant (BOP). The mechanical balance-of-plant processes the incoming fuel such as clean natural gas or renewable biogas and includes various fuel handling and processing equipment such as pipes and blowers. The electrical balance-of-plant processes the power generated for use by the customer and includes electrical interface equipment such as inverters.

Our power plants offer many advantages:

**Distributed generation:** The unique characteristics of our DFC power plants combine to make them an ideal form of distributed generation. Generating power near the point of use lessens the need for costly and difficult-to-site generation, transmission and distribution infrastructure.

**Ultra-clean:** Our DFC power plants produce electricity electrochemically without combustion directly from readily available fuels such as clean natural gas and renewable biogas in a highly efficient process. This process also produces high quality useful heat and water. Due to the absence of combustion, our power plants emit virtually no pollutants such as nitrogen oxide (NO<sub>x</sub>), sulfur oxide (SO<sub>x</sub>) or particulate matter (i.e. PM-10), an important public health benefit.

**High efficiency:** Fuel cells are the most efficient baseload power generation option in their size class, providing the most power from a given unit of fuel. Their high efficiency also reduces carbon emissions compared to less efficient combustion-based power generation.

**Combined heat and power:** Our power plants provide both electricity and usable high quality heat/steam from the same unit of fuel. The heat can be used for facility heating and cooling or further enhancing the electrical efficiency of the power plant in a combined cycle configuration. When used in Combined Heat and Power (CHP) configurations, system efficiencies can reach 90 percent.

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**Reliability / continuous operation:** Our DFC power plants improve power reliability and energy security by lessening reliance on transmission and distribution infrastructure of the electric grid. Unlike solar and wind power, fuel cells operate continuously regardless of geography or weather.

**Fuel flexibility:** Our DFC power plants operate on a variety of existing and readily available fuels including clean natural gas and renewable biogas.

**Scalability:** Our DFC power plants are scalable, providing a cost-effective approach to adding power incrementally as demand grows.

**Quiet operation:** Because they produce power without combustion and contain very few moving parts, our DFC power plants operate quietly.

**Easy to site:** Our DFC power plants are relatively easy to site by virtue of their ultra-clean emissions profile, modest space requirements and quiet operation. These characteristics allow multi-megawatt fuel cell parks to be sited in urban locations.

***Fuel cell Overview & Emissions Profile***

Fuel cells are devices that directly convert chemical energy (fuel) into electricity, heat and water. Because fuel cells generate power electrochemically, rather than by combusting (burning) fuels, they are more efficient in extracting energy from fuels and produce far fewer emissions and pollutants than combustion-type power generation. The following table illustrates the favorable emissions profile of our DFC power plants compared to combustion-based power generation.

	<b>Emissions (Lbs. Per MWh)</b>				
	<b>NOX</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub> with CHP</b>
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
DFC Power Plant	0.01	0.0001	0.00002	940	520 680

***Direct FuelCell Technology***

Our Direct FuelCell is so named because of its ability to generate electricity directly from a fuel, such as clean natural gas or renewable biogas, by reforming the fuel inside the fuel cell to produce hydrogen. This one-step reforming process results in a simpler, more efficient, and cost-effective energy conversion system compared with external reforming fuel cells. Additionally, clean natural gas and renewable biogas have established infrastructures so our products are not dependent on the development of a hydrogen delivery infrastructure.

Our Direct FuelCell operates at approximately 1,200° Fahrenheit. 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. 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.

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Fuel cell technologies are classified according to the electrolyte used by each fuel cell type. Our DFC technology utilizes a carbonate electrolyte. Carbonate-based fuel cells offer a number of advantages over other types of fuel cells designed for megawatt-class commercial applications. These advantages include carbonate fuel cells' ability to generate electricity directly from readily available fuels such as clean natural gas or renewable biogas, lower raw material costs as the high temperature of the fuel cell allows for the use of commodity metals rather than precious metals, and high-quality heat suitable for CHP applications. Other fuel cell types that may be used for commercial applications include: 1) phosphoric acid, 2) proton exchange membrane (PEM), and 3) solid oxide. The following table shows industry estimates of the electrical efficiency, operating temperature, expected capacity range and byproduct heat use of the four principal types of fuel cells:

### **Markets**

Global power demand is increasing in response to growing populations, greater urban density, and lifestyles that increasingly revolve around power consuming devices. Central generation and its associated transmission and distribution grid is difficult to site and costly. Some types of power generation that were widely adopted in the past such as nuclear power or coal-fired power plants are no longer welcome in certain regions of the world. The cost and impact to public health and the environment of pollutants and greenhouse gas emissions impacts the siting of new power generation. The attributes of DFC power plants address these challenges by providing virtually emission-free power and heat at the point of use in a highly efficient process.

### ***Primary Markets***

We have two primary markets for our products. The first is Ultra-Clean Power. This market consists of our DFC power plants operating on clean natural gas across seven distinct and diversified vertical markets. The second primary market is Renewable Power. This market is comprised of our DFC power plants operating on renewable biogas across four distinct and diversified vertical markets.

***Ultra-Clean Power:*** Seven distinct and diversified vertical markets which we define as:

- 1) Electric Utilities and IPPs (Independent Power Producers)
- 2) Education and Healthcare
- 3) Gas Transmission
- 4) Industrial
- 5) Commercial and Hospitality
- 6) Oil Production and Refining
- 7) Government

The electric utilities and IPPs are currently our largest vertical market. The majority of our installed base is in South Korea where our DFC power plants are generating ultra-clean power primarily for the nation's electric grid, with the fuel cells' heat typically being used to heat and cool nearby buildings. Our partner in South Korea is POSCO Power (POSCO), a subsidiary of South Korean-based POSCO, one of the world's largest steel manufacturers. To date, POSCO has ordered more than 140 megawatts of DFC power plants, modules and components.

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Within the Education and Healthcare vertical market, universities are an especially strong market for our DFC power plants. These institutions desire efficient, ultra-clean baseload power to reduce operating expenses, reduce greenhouse gas emissions, and meet their sustainability goals and desire for secure and reliable on-site power.

In other Ultra-Clean Power vertical markets, our DFC power plants are producing power for a variety of commercial, industrial, municipal and government customers including food processing plants, government buildings, hotels and military installations.

**Renewable Power:** Four distinct and diversified vertical markets which we define as:

- 1) Wastewater
- 2) Food and Beverage
- 3) Agriculture
- 4) Landfill Gas

Wastewater treatment facilities, food and beverage processors and some agricultural operations produce large quantities of harmful biogas as a byproduct of their operations. Disposing of this greenhouse gas can be harmful to the environment if released into the atmosphere or flared. Our DFC power plants excel at converting this biogas into electricity and heat efficiently and economically. By doing so, they transform waste disposal problems into clean energy solutions for customers in these markets.

The Wastewater vertical market continues to be an attractive segment for our DFC power plants as a result of a strong value proposition. Since our fuel cells operate on the renewable biogas produced by the wastewater treatment process and their heat is used in the wastewater treatment process, the overall thermal efficiency of these installations can be as high as 90 percent.

In other Renewable Power vertical markets, our DFC power plants are using renewable biogas to produce ultra-clean power for food and beverage processing plants while agriculture and landfill gas represent potential markets for our power generation solutions.

### ***Ownership models***

There are three different ownership models utilized by our customer base. The end-user of the power may purchase the power plant directly, such as industrial companies. The second alternative is for an intermediary to own the plant and sell the power and heat to the end user under a long term power purchase agreement (PPA). We have sold a number of power plants to intermediaries that own the plants and sell the power under PPAs to the end user with end users including municipal water treatment facilities and universities. These intermediaries are financial investors interested in attractive long term project finance returns or project developers that raise capital to fund the purchase of the power plants. The third ownership model is the rate-based model with electric utilities owning the power plants and including the plants in their rate base. We have sold power plants to two different electric utilities in California who have sited the plants on university campuses. The utility sells the power to the university while providing the heat for free as an incentive for locating the utility-owned plant on university property. Typical customers in South Korea are independent power producers who sell power into the grid electricity markets at prices determined by the renewable portfolio standard (RPS) pricing mechanisms. These customers often produce heat for sale to local heat users in addition to the power supplied to the grid.

### ***Distributed Generation***

We compete in the growing marketplace for distributed generation. Our DFC power plants are ideal distributed generation solutions that are equally well suited to generating power 1) on-site for a variety of customers including commercial and industrial enterprises, municipalities and government entities, where the power plant is installed and the electricity and heat used at the customer's own facilities, and 2) for utility companies in a grid-support role, where the power plant is installed in any suitable location from which it can supply power to the utility's power grid.

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***On-Site Power:*** Our DFC power plants can generate power efficiently, cleanly and reliably in on-site applications using either clean natural gas or renewable biogas. Customers benefit from improved power reliability and energy security as installing DFC plants reduces reliance on the electric grid. Use of our products can further help customers reduce their operating costs and carbon footprint because our DFC power plants can be up to 90 percent efficient when operated in Combined Heat and Power (CHP) configurations. Wastewater treatment facilities, food and beverage processors and some agricultural operations can use methane, a renewable byproduct of their own processes, to operate fuel cell power plants. This allows them to avoid the release of this greenhouse gas into the atmosphere or to eliminate gas flaring and the use of conventional combustion-based power generation equipment, both of which emit pollutants and particulate matter.

***Utility Grid Support:*** Our DFC power plants are well suited for utility grid-support applications due to their high efficiency, reliability and distributed generation attributes. Our plants are scalable making fuel cell parks practical and economical, such as an 11.2 MW fuel cell park that is providing power to the electric grid in Daegu City, South Korea. Fuel cell parks enable electric utilities to add power generation when and where it is needed in cost effective increments. Our products are generating power for electric utilities in South Korea and the United States.

Utilities can site our DFC power plants near where power is needed, connecting to the existing distribution network. By producing power near where the power is used, our fuel cells help to ease congestion of the electric grid and can also enable the smart grid via distributed generation combined with the continuous monitoring and operation by our service team. Our DFC power plants can help utilities generate clean energy efficiently and reduce investment in central generation, transmission and distribution infrastructure that is costly, difficult to site and expensive to maintain. Deploying our DFC power plants throughout a service territory can help utility companies comply with government-mandated clean energy regulations and meet air quality standards.

As renewable technologies like wind and solar power are deployed more widely, the need for a clean baseload technology that complements these intermittent sources becomes greater. Our installed base includes a number of locations where our customers use DFC plants for meeting baseload power needs that complements their wind and/or solar power generation.

### ***Renewable Portfolio Standards (RPSs)***

Renewable Portfolio Standards (RPSs) are one market driver for our DFC power plants, such as the RPS in South Korea.

An RPS is a mechanism designed to promote the adoption of renewable power generation. The RPS may be voluntary or mandated through legislation and generally places the obligation on the suppliers of electricity to generate a specified percentage of their electricity from renewable power sources. The purpose of an RPS is to provide a program which provides a competitive marketplace for providing renewable energy at the lowest possible cost while allowing clean renewable power to compete with cheaper fossil fuels. An RPS may even be structured to promote economic growth through adoption of renewable power generation.

Fuel cells can play a role in meeting RPS clean power mandates by generating highly efficient, clean electricity continuously. Fuel cells operating on renewable biogas meet the requirements of typical RPS programs and many RPS programs include fuel cells operating on natural gas due to the near zero emissions and highly efficient power generation process of fuel cells.

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### ***Geographic Markets***

***South Korea:*** The South Korean Government passed an RPS in March 2010 that requires four percent clean energy generation by 2015 and 10 percent by 2022. Effective in 2012, the program mandates 350 megawatts of additional renewable energy per year through 2016, and 700 megawatts per year through 2022. At present, only about one percent of South Korea's electricity comes from renewable resources. Fuel cells operating on natural gas and biogas qualify under the mandates of the program.

High efficiency fuel cells are an excellent green energy solution for South Korea due to the need to import fuels, ease of siting in populated areas, and the poor wind and solar profiles of the Korean Peninsula. The South Korean government desires clean distributed generation power sources to support their growing power needs while minimizing additional investment and congestion of the transmission grid. Fuel cells address these needs and have been designated cells a key economic driver for the country due to their ultra-clean emissions, high efficiency and reliable distributed generation capabilities which will help South Korea achieve its RPS and electricity generation goals.

***United States:*** Individual states in the U.S. seeking to secure cleaner energy sources, higher efficiency and greater energy independence are establishing RPSs that require utilities to provide a certain amount of their electricity from renewable sources such as solar, wind, biomass-fueled technologies and fuel cells. RPS requirements or goals have been established in 33 states plus the District of Columbia.

These markets represent a potential for an estimated 76,750 megawatts of renewable power by 2025, according to the Union of Concerned Scientists. Fuel cells using biogas qualify as renewable power generation technology in all of the RPS states in the U.S., and nine states specify that fuel cells operating on natural gas are also eligible for these initiatives.

Most of our installed base in the U.S. is located in California and Connecticut, both of which have enacted RPS programs. California enacted legislation in 2010 that increases the clean energy requirement of its state RPS from 20 percent to 33 percent and is developing plans to deploy 12,000 megawatts of distributed generation by 2020. Connecticut's RPS requires utilities to purchase 20 percent of their peak electricity needs, or about 1,000 megawatts, from clean power sources by 2020.

***California:*** In some regions in California, clean air permitting is a significant hurdle to the installation of combustion-based power generation. The low emissions and near-zero pollutant profile of our products enables the clean air permitting process. Three of our DFC power plants (the 2.8 MW DFC3000, the 1.4 MW DFC1500 and 300 kW DFC300) have received certification under the California Air Resources Board's distributed generation standards when operating on natural gas. The DFC3000 and DFC1500 are the only megawatt and multi-megawatt fuel cells to achieve this certification.

Programs which benefit fuel cells in California are the Self-Generation Incentive Program (SGIP) and a CHP feed-in tariff (CHP FiT) program which were enacted to reduce greenhouse gases and encourage clean distributed generation. Under the SGIP program, qualifying fuel cell projects of up to three megawatts are eligible for incentives of up to \$4,250 per kilowatt when operating on renewable biogas and up to \$2,250 per kilowatt when operating on clean natural gas. The SGIP program is funded through 2014. Under the CHP FiT, excess electricity not used on-site can be sold to the grid at a price set by the CPUC called the Market Price Referent or MPR as long as the heat is used on-site. This feed-in tariff will improve the economics of some fuel cell projects.

We are benefiting from a trend towards megawatt scale DFC power plants. We are also witnessing larger entities purchasing DFC power plants such as electric utilities and some of the largest municipal water treatment facilities. Our initial sales were sub-megawatt power plants to smaller-size municipal water treatment facilities. We are now selling and installing megawatt class plants to some of the largest water treatment facilities in the state.



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**Connecticut:** Connecticut has adopted a comprehensive clean energy policy, including a state RPS, designed to increase energy efficiency and expand renewable power. Recently, the state created a long-term renewable energy credit program funded with \$300 million over 20 years. This program is expected to be more effective in fostering the near-term adoption of clean distributed generation than prior legislation. Our DFC power plants are providing power for food processors, a university and government facilities in the state. As we grow, our company is contributing to the state economy, creating good paying jobs in the manufacturing sector as well as research, engineering and administrative jobs.

**Canada:** Our DFC-ERG system, deployed with our partner Enbridge, Inc., is specifically designed for natural gas pressure letdown stations. Natural gas is piped under high pressure over long distances and the pressure must be reduced at letdown stations before it can be distributed locally. Our fuel cell power plant is coupled with a turbo expander to harness energy from the letdown process that is otherwise lost. Our first DFC-ERG power plant went into operation in Toronto in 2008. The DFC-ERG plant attained an average electrical efficiency of 62.5 percent, peak electrical efficiency above 70 percent and reduction in greenhouse gas emissions of up to 45 percent.

**Europe:** The European market represents significant opportunity for stationary fuel cell power plants. We initially tried to develop market opportunities by entering into exclusive territory and license agreements with a German based company in 1989. This partner focused exclusively on sub-megawatt installation of 250 kW to 300 kW and did not develop the market, with less than one dozen installations spread across a number of European countries. The territory and license agreements expired at the end of 2009. Subsequently, we have been actively engaged in discussions with a variety of potential partners. Our strategy is to identify partners with experience in power generation and the resources to develop a market for megawatt-class power plants. We recognize that more than one partner will be needed to take advantage of the market opportunities in Europe.

Our first direct sale in Europe occurred in 2011 with the sale of a power plant for installation within a commercial building in Central London, England. This was our first direct order in Europe and an important milestone. Opening up the European marketplace is a key objective as we seek to expand geographically. Recent clean energy proposals announced by the British government and clean energy goals established by governments in Europe make this market very attractive for stationary fuel cell power plants.

The European power generation market values efficiency and low emissions and represents an untapped market for ultra-clean baseload distributed generation fuel cell power plants. Business partner selection is critical to success and the Abengoa partnership discussed in greater detail below is with an organization that has sufficient scale and reach to develop and grow a fuel cell market in the targeted geographies, particularly renewable biogas opportunities in Spain and other select European countries as well as liquid biofuel opportunities such as sugar cane ethanol in Brazil. We are engaged in discussions with additional potential partners in Europe as part of our strategy to expand in the European market.

Geographic data is reported in Note 13 to the consolidated financial statements in Part II, Item 8, Consolidated Financial Statements And Supplementary Data of the Form 10-K Report.

### **Strategic Alliances**

We leverage our core capabilities by forging strategic alliances with carefully selected business partners. Our partners typically have extensive experience in developing, selling and servicing energy products. We believe our strength in the development of fuel cell products; coupled with our partners' understanding of sophisticated commercial and industrial customers, products and services; enhances the sales, service and development of our products. Our business partners include:

**POSCO Power:** We partner with POSCO Power, an Independent Power Producer (IPP) with annual revenues of more than \$1 billion and a subsidiary of South Korean-based POSCO, one of the world's largest steel manufacturers (NYSE: PKX). In February 2007, we signed a 10-year manufacturing and distribution agreement with POSCO Power to distribute and package DFC power plants in South Korea. POSCO Power has extensive experience in power plant project development, having built over 3,300 megawatts of power plants, equivalent to 4.3 percent of South Korea's national capacity.



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In October 2009, we entered into a Stack Technology Transfer and License Agreement allowing POSCO Power to assemble fuel cell stack modules from cell and module components provided by us. These fuel cell modules are combined with BOP manufactured in South Korea to complete the fuel cell power plants for sale in South Korea or export to Asian markets. Our agreement with POSCO Power illustrates our strategy of executing locally for economic development, while leveraging our global expertise and infrastructure.

POSCO Power has 100 megawatts of local balance of plant manufacturing capacity and fuel cell module assembly and conditioning capacity. Local capacity in South Korea effectively increases worldwide capacity for our DFC power plants and demonstrates the commitment of POSCO Power to our product line. Locating final assembly of our DFC power plants closer to end users reduces costs and ensures our products meet the needs of individual markets. We control our intellectual property manufacturing capacity and reduce our shipping costs. POSCO Power fulfills South Korean energy policy objectives and creates local employment. POSCO has begun marketing power plants regionally, beginning with markets in Indonesia.

We have also partnered with POSCO Power to expand the market for fuel cells in South Korea through development of a 100 kW DFC power plant targeted at the commercial / apartment building market in Asia. POSCO Power designed the BOP for these small-scale power plants and installed two demonstration units in Seoul City in late 2011.

**Enbridge, Inc.:** We have a market development relationship with Canada-based Enbridge (NYSE: ENB), a global leader in energy transportation and distribution for the market development and deployment of the Direct FuelCell Energy Recovery Generation (DFC-ERG®) power plant. A 2.2 MW DFC-ERG unit is operating at Enbridge's headquarters in Toronto, having been installed in 2008.

**Abengoa:** We announced a partnership in December 2011 with Spanish-based Abengoa (MCE: ABG), a multi-national company focused on renewable power generation, desalination and recycling. Under the partnership, Abengoa will develop, manufacture and market stationary fuel cell power plants using fuel cell modules provided by us. Target markets are in Europe and Latin America for megawatt-class DFC power plants, including municipalities, large industrial power users and facilities that generate renewable biogas. In addition, the parties are cooperating to enhance the capability and market opportunities for DFC power plants operating on liquid biofuels, such as sugar cane ethanol produced in Brazil.

**Other:** We have aligned ourselves with project developers to develop power generation projects using our power plants. These project developers target specific applications or markets.

### **Business Strategy**

Our business strategy is to grow revenues by expanding in our key geographic and vertical markets while continuing to reduce product costs. Our DFC power plants are gross margin profitable and we believe that with sufficient volume we can achieve net income profitability. Our vision is to provide ultra-clean, highly efficient, reliable distributed generation baseload power at a cost per kilowatt hour that is less than the cost of grid-delivered electricity. Our power plants provide electricity that is priced competitively to grid-delivered electricity in certain high cost regions. We plan to achieve our vision by focusing on three Strategic Priorities: 1) Driving Growth, 2) Operational Excellence, and 3) Customer Satisfaction.

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***Driving Growth*** is our Strategic Priority aimed at growing our geographic and vertical markets and increasing revenues. Initiatives designed to accomplish this objective include; building markets that are based on our core fuel cell technology, broadening the penetration of our key market segments and expanding into new markets.

We are focused on markets that combine elements that we believe are essential for rapid and sustained growth. These are markets in where the cost of grid-delivered electricity is high, the market values clean and efficient power sources and the regulatory environment is supportive of fuel cell technology and distributed generation.

Geographic markets that meet these criteria and where we are already well established include South Korea, California and Connecticut. Vertical markets contributing to our growth include utility grid support, universities, wastewater treatment and food and beverage processing. Through a joint development agreement with our South Korean partner, we also have two demonstration power plants targeting the commercial building market in South Korea.

***Operational Excellence*** is our Strategic Priority aimed at achieving operational excellence in every aspect of our business. Initiatives designed to accomplish this objective include enhancing the performance of our DFC power plant fleet, extending the lifecycle of our products and reducing the cost of our products and fully leveraging our engineering, manufacturing and other resources.

Our ongoing cost reduction program involves every aspect of our business, from engineering, procurement and manufacturing through installation and services. Close coordination with customers, suppliers and partners are key elements of the program. Since they were first commercialized in 2003, we have reduced the product cost of our megawatt-class power plants by more than 60 percent.

***Customer Satisfaction*** is our Strategic Priority aimed at ensuring that our customers are delighted with the performance of our products and the ongoing services we provide. We have executed long-term service agreements with our customers. These service agreements help us partner more closely with customers to deliver the value they expect and they create opportunities for us to provide additional services. Service agreements generate predictable and stable recurring revenue; as our installed base continues to grow they will generate sustainable revenue and contribute to profitability.

## **Manufacturing**

### ***Manufacturing Process***

We have a 65,000 square-foot manufacturing facility in Torrington, Connecticut where we produce our core fuel cell components which are assembled into modules. The completed modules are then transported to our test and conditioning facilities in Danbury, Connecticut for the final step in the manufacturing process and then shipped to customer sites. For the South Korean marketplace, the components are manufactured in the USA and then shipped to South Korea for local stacking and conditioning.

We design and manufacture the core fuel cell components. The Balance of Plant (BOP) components are either purchased directly from suppliers or the manufacturing is outsourced based on our designs and specifications. This strategy allows us to leverage our manufacturing capacity, focusing on the critical aspects of the power plant where we have specialized knowledge and expertise. Localizing the BOP ensures designs meet local power needs, minimizes our inventory investment, reduces shipping costs and offers the potential for partners to manufacture BOP and create local jobs. BOP components are shipped directly to a customer's site and are assembled, with the fuel cell module, into a complete power plant.

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### ***Capacity and Production Increase***

Our overall manufacturing process (module manufacturing, final assembly, testing and conditioning) has a production capacity of up to 90 MW per year, with full utilization under its current configuration. Production capacity expansion above 90 MW will require the addition of equipment (e.g.: furnaces, tapecasting and other manufacturing equipment) to increase the capacity of certain operations. Due to the economies of scale and equipment required, we believe it is most cost effective to add capacity in 70 MW increments.. We estimate that an expansion of 70 MW will require additional capital investments of \$30 to \$40 million, although this expansion could occur in stages depending on the level of market demand.

In 2011, POSCO Power placed a 70 MW order with 2.8 megawatts of fuel cell kits to be delivered each month from October 2011 through October 2013. This order provides a base level of production for raw materials purchases and other operational considerations for a two-year period and is helping to further reduce costs through manufacturing and purchasing efficiencies.

### ***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. Our fuel cell stack raw materials are sourced from multiple vendors and are not considered precious metals. In addition to manufacturing the fuel cell module in our Torrington facility, the electrical and mechanical BOP are assembled by and procured from several suppliers. All of our suppliers must undergo a qualification process. We continually evaluate new suppliers and are currently qualifying several new suppliers.

### ***Advanced Technology Programs (Research and Development)***

We perform both public and privately -funded research and development to expand the markets for our DFC power plants, reduce costs and expand our technology portfolio in complementary high-temperature fuel cell systems. This research builds on the versatility of our fuel cell power plants and contributes to the development of potentially new end markets. Our power plants provide various value streams including clean electricity, high quality usable heat and hydrogen, suitable for vehicle fueling or industrial purposes. Our Advanced Technology Programs are focused on three strategic areas that have strong prospects for commercialization within a reasonable timeframe: solid oxide fuel cell (SOFC) development and commercialization, hydrogen production, compression and storage, and carbon capture. The revenue and costs from government-sponsored research and development is classified as Revenue of research and development contracts and Cost of research and development contracts, respectively, 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. Company-funded research and development is included in research and development expenses in our consolidated financial statements. For the fiscal years ended 2011, 2010, and 2009, total government-sponsored and company-funded research and development costs and expenses were \$24.6 million, \$28.9 million, and \$30.2 million, respectively.

Since 1975, we have worked with various U.S. government departments and agencies, including the Department of Energy (DOE), the Department of Defense (DOD), the Environmental Protection Agency (EPA), the Defense Advanced Research Projects Agency (DARPA) and the National Aeronautics and Space Administration (NASA) on technology development. Government funding, principally from the DOE, provided 6 percent, 15 percent, and 16 percent of our revenue for the fiscal years ended 2011, 2010, and 2009, respectively. From the inception of our carbonate fuel cell development program in the mid-1970s to date, more than \$550 million has been invested relating to government programs in support of the development of our DFC and related technologies.

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

***Solid oxide fuel cell (SOFC) development and commercialization;*** We have been a prime contractor in the DOE's Solid State Energy Conversion Alliance ( SECA ) since 2003 and are currently participating in Phase III of the Large Scale Hybrid Program. The goal of this cost-share program is to develop a multi-megawatt, highly efficient, central generation SOFC power plant operating on coal synthesis gas. Phase III, awarded in 2011, is an \$11.7 million program. The objective for this phase is to build and operate an SOFC module with output of 60 kW. This will accelerate the development of affordable SOFC modules with enhanced performance and endurance. The 60 kW SOFC module is expected to begin operating in the summer of 2012 at our facility in Danbury, Connecticut.



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We utilize the cell and stack design of our technology team partner, Versa Power Systems Inc. (Versa), for our SOFC development programs. We currently own approximately 39 percent of Versa. Versa has been engaged in SOFC development since 1997 and is considered a world leader in SOFC cell and stack technology.

***Hydrogen production, compression and storage*** Our high temperature DFC power plant generates electricity directly from a fuel by reforming the fuel inside the fuel cell to supply hydrogen for the electrical generation process. We capture the excess hydrogen that is not used in the electrical generation process. Gas separation technology can then be added to capture hydrogen that is not used by the electrical generation process, and we term this configuration DFC-H2. This value-added proposition may be compelling for industrial users of hydrogen or for vehicle fueling. A DFC300-H2 power plant is operating at the Orange County Wastewater Treatment Facility in Irvine, California to supply 1) hydrogen for use in fuel cell vehicle fueling, 2) clean renewable electricity, and 3) high quality heat for the wastewater treatment process. The demonstration is being performed under sub-contract to Air Products (NYSE: APD) with the majority of funding provided by the DOE.

***Carbon Capture*** Coal is an abundant, low cost, domestic resource which is widely used to generate electricity, but with a large carbon footprint. Cost effective and efficient carbon capture from coal-fired power plants potentially represents a large global market because it could enable clean use of this domestic fuel. Our carbonate fuel cell technology separates and concentrates carbon dioxide (CO<sub>2</sub>) as a side reaction during the power generation process. DFC carbon capture research conducted by us has demonstrated that this is a viable technology for the efficient separation of CO<sub>2</sub>. In 2011, we received awards from the DOE totaling \$3.0 million and the U.S. Environmental Protection Agency totaling \$0.1 million to evaluate the use of Direct FuelCell technology to efficiently and cost effectively separate carbon dioxide (CO<sub>2</sub>) from the emissions of existing coal fired power plants and industrial flue gases.

## **Competition**

The electric generation market is competitive with continually evolving participants. Our DFC power plants compete in the marketplace for distributed generation. In addition to different types of stationary fuel cells, some other technologies that compete in this marketplace include micro-turbines and reciprocating gas engines.

Several companies in the U.S. are engaged in fuel cell development, although we believe we are the only domestic company engaged in significant manufacturing and commercialization of stationary carbonate fuel cells. Emerging fuel cell technologies (and the companies developing them) include PEM fuel cells (Ballard Power Systems and Plug Power), phosphoric acid fuel cells (UTC Power) and solid oxide fuel cells (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 fuel cell competitors internationally. In Japan, 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 also compete with companies such as Caterpillar, Cummins, Wartsilla, MTU Friedrichshafen GmbH (MTU), Mitsubishi Heavy Industries and Detroit Diesel, which manufacture more mature combustion-based distributed power generation equipment, including various engines and turbines, and have well-established manufacturing and distribution operations along with product operating and cost features. Electrical efficiency of these products can be competitive with our DFC power plants in certain applications. Competition on larger MW projects may also come from gas turbine companies like General Electric, Solar Turbines and Kawasaki.

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We also compete against the electric grid with utilities that generate power in large central generation locations and then use transmission lines to transport the electricity to the point of use.

**Services and Warranty Agreements**

We offer a comprehensive portfolio of services including: engineering installation, performance contracts, long-term maintenance programs, refurbishment and complete product support including trained technicians that remotely monitor and operate the plants around the world 24 hours a day and 365 days a year. We employ field technicians to service the power plants and maintain service centers near our customers to ensure high availability of our plants. In addition to the standard product warranty of one year, we also offer customers service agreements (LTSA) for Direct FuelCell (DFC) power plants ranging from one to 20 years. Our standard LTSA 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.

While the electrical and mechanical balance of plant (BOP) in our DFC power plants is designed to last over 20 years, the fuel cell stacks must currently be replaced approximately every five years, and depending on the term, our LTSAs include fuel cell stack replacements at approximately five-year intervals.

Under the typical provisions of the LTSAs, we provide services to monitor, operate and maintain customer power plants to meet performance levels. Should the power plant not meet the minimum performance levels, we may be required to replace the fuel cell stack with a new or used replacement or pay performance penalties.

**Government Regulation**

Our Company and its products are 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 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 power plants, assuming no cogeneration application, are humid flue gas that is discharged at temperatures of 700-800°F, water that is discharged at temperatures of 10-20°F above ambient air temperatures, and CO<sub>2</sub> in per kW hour amounts can be much less than conventional fossil fuel central generation power plants. In light of the high temperature of the gas emissions, we are required 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 to be discharged into a storm drain or into the local wastewater system. 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. Our power plants are designed to meet all applicable laws, regulations and industry standards for use in their markets.

We are committed to providing a safe and healthy environment for our employees. All of our employees are required to obey all applicable health, safety and environmental laws and regulations and must observe the proper safety rules and environmental practices in work situations. We are dedicated to seeing that safety and health hazards are adequately addressed through appropriate work practices, training and procedures.



**Table of Contents****Proprietary Rights and Licensed Technology**

Our company was founded as a research company in 1969 and began focusing on high-temperature carbonate fuel cells in the 1980s. After a multi-year period of research and development including installation and operation of demonstration carbonate fuel cell power plants, we began selling fully commercialized Direct FuelCell (DFC) power plants in 2003. Our extensive experience, trade secrets, proprietary processes and patents combine to safeguard our intellectual property rights and act as a significant barrier to entry for potential competitors.

We have 71 current U.S. patents and 50 international patents covering our fuel cell technology (in certain cases covering the same technology in multiple jurisdictions). 69 of our U.S. patents relate to our Direct FuelCell technology and 2 patents relate to PEM fuel cell technology. We also have submitted 30 U.S. and 130 international patent applications.

Our patents will expire between 2014 and 2030, and the current average remaining life of our patents is approximately 11 years. During 2011, 14 new U.S. patents were issued or allowed and 2 U.S. and 20 international patents expired or were abandoned. The expiration of these patents has no material impact on our current or anticipated operations. We also have approximately 19 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 our Department of Energy (DOE) programs. U.S. patents that we own that resulted from government-funded research are subject to the government exercising march-in rights. We believe 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.

**Significant Customers and Backlog**

We contract with a concentrated number of customers for the sale of our products and for research and development contracts. For the fiscal years ended October 31, 2011, 2010 and 2009, our top four customers, POSCO (which is a related party and owns approximately 8 percent of the outstanding common shares of the Company), BioFuels Fuel Cells, LLC, UTS BioEnergy, LLC and Pacific Gas and Electric Company, accounted for 71 percent, 68 percent and 64 percent, respectively, of our total annual consolidated revenue. Revenue percentage by major customer for the last three fiscal years is as follows:

	<b>2011</b>	<b>2010</b>	<b>2009</b>
POSCO	44%	58%	64%
BioFuels Fuel Cells, LLC	12%		
UTS BioEnergy, LLC	10%		
Pacific Gas and Electric Company	5%	10%	
Total	71%	68%	64%

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See Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8 Consolidated Financial Statements and Supplementary Data for further information regarding our revenue and revenue recognition policies.

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 sales and service backlog totaled \$209.9 million as of October 31, 2011 compared to \$154.3 million as of October 31, 2010. Product backlog was \$131.8 million or 72.9 MW as of October 31, 2011 and \$87.2 million or 33.5 MW as of October 31, 2010. Service agreement backlog was \$78.1 million and \$67.1 million as of October 31, 2011 and 2010, 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 totaled \$15.8 million as of October 31, 2011 compared to \$9.7 million as of October 31, 2010. The unfunded portion of our research and development contracts amounted to \$6.8 million and \$4.4 million as of October 31, 2011 and 2010, 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, 2011 we had contracts for power plants totaling 2.0 MW under PPAs ranging from six to eight years. Revenue under these agreements is recognized as electricity is produced. This revenue is not included in backlog described above.

**Employees**

As of October 31, 2011, we had 471 full-time employees, of whom 220 were located at the Torrington, Connecticut manufacturing plant, and 251 were located at the Danbury, Connecticut facility or various field offices. In addition, as of October 31, 2011, the Company had 42 temporary workers, with the majority located at the Torrington manufacturing plant. None of our employees are represented by a labor union 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 the Company's 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 (SEC). 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>.

**Table of Contents****Executive Officers of the Registrant**

<b>NAME</b>	<b>AGE</b>	<b>PRINCIPAL OCCUPATION</b>
<b>Arthur A. Bottone</b> President and Chief Executive Officer	51	Mr. Bottone joined FuelCell Energy in February 2010 as Senior Vice President and Chief Commercial Officer and was promoted to President and CEO in February 2011. Prior to joining FuelCell Energy, Mr. Bottone was President of the Energy Systems business at Ingersoll Rand Company. Mr. Bottone's focus is to accelerate growth and profitability by capitalizing on heightened demand by the world's industrialized and emerging nations for clean and renewable energy. He is also responsible for developing and implementing strategies to further expand the company's market opportunities and growth potential. Mr. Bottone's qualifications include 25 years of experience at Ingersoll Rand Company, a diversified global industrial concern. Mr. Bottone received an undergraduate degree in Mechanical Engineering from Georgia Institute of Technology in 1983, and received a Certificate of Professional Development from The Wharton School, University of Pennsylvania in 2004. Mr. Bottone has extensive experience in global commercialization activities that deliver profitable growth.
<b>Michael Bishop</b> Senior Vice President, Chief Financial Officer, Treasurer and Corporate Secretary	43	Mr. Bishop has held a succession of financial leadership roles within the Company and was appointed Chief Financial Officer in 2011. He joined the Company in 2003 as Assistant Controller, was promoted to Corporate Controller in 2004 and Vice President and Controller in 2007. Prior to joining FuelCell Energy, Inc., Mr. Bishop held finance and accounting positions at Transwitch Corporation, Cyberian Outpost, Inc. and United Technologies, Inc. He is a certified public accountant and began his professional career at McGladrey and Pullen, LLP. Mr. Bishop received a B.S. in Accounting from Boston University in 1993 and an MBA from the University of Connecticut in 1999.

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<b>NAME</b>	<b>AGE</b>	<b>PRINCIPAL OCCUPATION</b>
<b>Anthony F. Rauseo</b> Senior Vice President, Chief Operating Officer	52	Mr. Rauseo was appointed to Chief Operating Officer in July, 2010. In this position, Mr. Rauseo has responsibility for closely integrating the manufacturing operations with the supply chain, product development and quality initiatives. Mr. Rauseo joined the Company in 2005 as Vice President of Engineering and Chief Engineer. Prior to joining Fuel Cell Energy, Mr. Rauseo held a variety of key management positions in manufacturing, quality and engineering including five years with CiDRA Corporation. Prior to joining CiDRA, Mr. Rauseo was with Pratt and Whitney for 17 years where he held various leadership positions in product development, production and customer support of aircraft turbines. Mr. Rauseo received a Bachelor Science Mechanical Engineering from Rutgers University in 1983 and received a Masters Science Mechanical Engineering from Rensselaer Polytechnic Institute in 1987.

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### **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, manufacturer and services provider. 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, but not limited to, the price of our common stock 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 continued increases 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 improvements (including stack life and projected power output). Failure to achieve our cost reduction targets could have a material adverse effect on our results of operations and financial condition.

***Our products 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 DFC Power Plants operate using a variety of 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 ITC, the incentive programs in South Korea and the state of California and state RPS 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.

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***Financial markets worldwide have experienced increased volatility and instability which may have a material adverse impact on our Company, our customers and our suppliers.***

Financial market volatility and instability affects both debt and equity markets. This may impact 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 future financial market volatility and instability and the impact on our Company and it may have a materially adverse effect on us 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. Financial market issues 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 significant volatility in the U.S. and international stock markets since 2008, , has caused significant uncertainty and may result in an increase in the return required by investors in relation to the risk of such projects.

If we, or our customers and suppliers, cannot obtain financing under favorable terms, our business may be negatively impacted.

***We have signed product sales contracts, long-term service agreements and power purchase agreements with customers subject to technology and operating risks as well as market conditions that may affect our operating results.***

The Company applies the percentage of completion revenue recognition method to certain contracts which are subject to estimates. On a quarterly basis, the Company performs a review process to help ensure that total estimated contract costs include estimates of costs to complete that are based on the most recent available information. The percentage of completion for the customer contract based on this cost analysis is then applied to the total customer contract value to determine the total revenue to be recognized to date.

We have contracted under long-term service agreements with certain customers to provide service on our products over terms ranging from one to 20 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. 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 ( PPAs ), 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, 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' 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.



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***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. We accrue for warranty costs based on historical warranty claim experience, however actual future warranty expenses may be greater than we've assumed in our estimates. As a result, operating results could be negatively impacted should there be product manufacturing or performance defects in excess of our estimates.

***Our products are complex and could contain defects and may not operate at expected performance levels which could impact sales and market adoption of our products or result in claims against us.***

We develop complex and evolving products. Our initial installations were demonstration power plants intended to test the technology in real-world applications. We learned extensively from these demonstration installations, enhancing the technology and improving the operation of the power plants. Our first commercial Direct FuelCell power plant installation in 2003 had a rated power output of 250 kW and a 3 year stack life. Most of these 250 kW installations were terminated at contract conclusion or earlier as the costs were too high to justify continuation and the customer's power needs did not support a megawatt-class power plant. Certain of these early product designs did not meet our expectations resulting in mixed performance history, impacting the adoption rate of our products. Costs are lower for our newer megawatt-class plants compared to sub-megawatt plants due to scale. With the growing expertise gained from an expanding installed base, we continue to advance the capabilities of the fuel cell stacks and are now producing stacks with a rated power output of 350 kW and an expected five year life. Our current generation megawatt-class of products are performing at expected output levels and continued operating experience is expected to lead to broader market adoption.

We have limited field operating experience on our products, and despite experience gained from our growing installed base and testing by us, our customers and our suppliers, issues may be found in existing or new products. This could result in a delay in recognition or loss of revenues, loss of market share or failure to achieve broad market acceptance. The occurrence of defects could also cause us to incur significant warranty, support and repair costs, could divert the attention of our engineering personnel from our product development efforts, and could harm our relationships with our customers. The occurrence of these problems could result in the delay or loss of market acceptance of our products and would likely harm our business. Defects or performance problems with our products could result in financial or other damages to our customers. From time to time, we have been involved in disputes regarding product warranty issues. Although we seek to limit our liability, a product liability claim brought against us, even if unsuccessful, would likely be time consuming and could be costly to defend. Our customers could also seek and obtain damages from us for their losses. We have reserved for potential damages related to performance problems, however actual results may be different than the assumptions used in our reserve calculations.

***We currently face and will continue to face significant competition.***

We compete on the basis of our products' reliability, 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 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. and Plug Power), phosphoric acid fuel cells (UTC Power) and solid oxide fuel cells (Delphi, Rolls Royce, Bloom Energy, and Acumentrics). Each of these competitors has the potential to capture market share in our target markets. There are also other potential fuel cell competitors internationally that could capture market share. In Japan, Fuji Electric has been involved with both PEM and phosphoric acid fuel cells. In Korea, Doosan Corporation is engaged in carbonate fuel cell development.



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Other than fuel cell developers, we must also compete with companies that manufacture more mature combustion-based equipment, including various engines and turbines, and have well-established manufacturing, distribution, and operating and cost features. Electrical efficiency of these products can be competitive with our DFC Power Plants in certain applications. Significant competition may also come from gas turbine companies.

***We have a large and influential stockholder, which may make it difficult for a third party to acquire our common stock.***

POSCO Power currently owns approximately 8 percent of our outstanding common stock, which could make it difficult for a third party to acquire our common stock. POSCO Power is also a licensee of our technology and purchaser of our products. Therefore, it may be in their interests to possess substantial influence over matters concerning our overall strategy and technological and commercial development.

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

Our first commercial power plant installation was in 2003 so we have limited experience manufacturing our products on a commercial basis. With full utilization under its current configuration, our overall manufacturing process has a production capacity of 90 MW per year depending on product mix and other factors. 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 satisfy the requirements of our customers. 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 products.***

Our plans are dependent upon market acceptance of, as well as enhancements to, our 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 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;

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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 our products and may never achieve profitability.

As we continue to expand markets for our products, we intend to continue to develop warranties, power 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 results of operations and financial condition.

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

We contract with a concentrated number of customers for the sale of products and for research and development contracts. Significant revenue from individual customers is included in Note 1 of Notes to Consolidated Financial Statements. This includes revenues from POSCO Power, which is a related party and owns approximately 8 percent of the outstanding common shares of the Company.

There can be no assurance that we will continue to achieve the current level 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 effect on our business, financial condition and results of operations.

***Our 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 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.

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### ***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 results of operations and 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. We own all patents resulting from research funded by our DOE contracts awarded 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. Nine 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, one of our DOE-funded research and development agreements also required 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.

### ***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 of October 31, 2011, we had a total of 471 full-time employees; however, we cannot assure you that we will continue to qualify as a small business in the future.

### ***Our future success and growth is dependent on our market strategy.***

We cannot assure you that we will enter into partnerships 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 partners with which we form relationships will focus adequate resources on selling our products or will be successful in selling them. Some of these arrangements have or will require that we grant exclusive 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 partner 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 arrangements include, and some future arrangements may also include, the issuance of equity and warrants to purchase our equity, which may have an adverse effect on our stock price. To the extent we enter into partnerships or relationships, the failure of these partners to assist us with the deployment of our products may adversely affect our results of operations and financial condition.



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***We depend on third party suppliers for the development and supply of key raw materials and components for our 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 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 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. As of October 31, 2011, we had 71 current U.S. patents and 50 international patents covering our fuel cell technology. These patents will expire between 2014 and 2030 and have an average remaining life of approximately 11.44 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 able to be patented, 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.

We cannot assure you that any of the U.S. or international 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 able to be patented, 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.



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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 Arthur Bottone, our Chief Executive Officer. The loss of the services of any executive officer, including Mr. Bottone, or other key management, engineering, scientific, manufacturing and operating personnel, could materially adversely affect our business. Our ability to achieve our 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 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 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. 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 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.

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### ***Utility companies may resist the adoption of distributed generation and could impose customer fees or interconnection requirements on our customers that could make our products less desirable.***

Investor-owned electric utilities may resist adoption of distributed generation fuel cell plants as the power plants are disruptive to the utility business model that primarily utilizes large central generation power plants and associated transmission and distribution. On-site distributed generation that is on the customer-side of the electric meter competes with the utility. Distributed generation on the utility-side of the meter generally has power output that is significantly less than central generation power plants and may be perceived by the utility as too small to materially impact their business, limiting their interest. Additionally, perceived technology risk may limit utility interest in stationary fuel cell power plants.

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 U.S. 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.

### ***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 use corrosive carbonate material, which could expose us to potential liability claims. Although we have incorporated a robust design and redundant safety features in our power plants and have established and 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 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 adequate insurance coverage on acceptable terms.





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***We are subject to risks inherent in international operations.***

Since we market our products both inside and outside the U.S., 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. accounts for a significant portion of our consolidated revenue. Sales to customers in South Korea 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, potential conflicts or disputes that countries may have to deal with, 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 results of operations and financial condition.

***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.

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### ***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, sale and service 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 our cash flows.***

The terms of the Series 1 preferred shares issued by FCE FuelCell Energy, Ltd. ( FCE Ltd. ), our wholly-owned, indirect subsidiary, provide rights to the holder, Enbridge Inc. ( Enbridge ), which could negatively impact us.

On March 31, 2011, the Company entered into an agreement with Enbridge to modify the provision of the Class A Cumulative Redeemable Exchangeable Preferred Shares (the Series 1 Preferred Shares ) of FCE Ltd., a wholly-owned subsidiary of the Company. Enbridge is the sole holder of the Series 1 Preferred Shares. Consistent with the previous Series 1 preferred share agreement FuelCell Energy, Inc. continues to guarantee the return of principal and dividend obligations of FCE Ltd. to the Series 1 preferred shareholders under the modified agreement.

Under the original Series 1 Preferred Shares provisions, FCE Ltd. had an accrued and unpaid dividend obligation of approximately Cdn. \$12.5 million representing the deferral of dividends plus additional dividends thereon. Payment was originally due to Enbridge as of December 31, 2010, but was subsequently extended based on mutual consent. Under the modified share provisions the Company is required to make (i) equal quarterly return of capital cash payments to the holders of the Series 1 Preferred Shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011 and (ii) additional return of capital cash payments, as consideration for the one-year deferral, calculated at a 9.8 percent rate per annum on the unpaid Cdn. \$12.5 million obligation, which additional payments will also be made to the holders of the Series 1 Preferred Shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011. Dividends accrue at a 1.25% quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends (inclusive of the Cdn\$12.5 million unpaid dividend balance as of the modification date) at a rate of 1.25% per quarter, compounded quarterly.

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Under the original Series 1 Preferred Shares provisions, FCE Ltd. was to make annual dividend payments totaling Cdn. \$1,250,000. The modified terms of the Series 1 Preferred Shares adjust these payments to (i) annual dividend payments of Cdn\$500,000 and (ii) annual return of capital payments of Cdn. \$750,000. These payments commenced on March 31, 2011 and will end on December 31, 2020. Additional dividends accrue on cumulative unpaid dividends at a 1.25 percent quarterly rate, compounded quarterly, until payment thereof. On December 31, 2020 the amount of all accrued and unpaid dividends on the Series 1 Preferred Shares of Cdn\$21.1 million and the balance of the principal redemption price of Cdn\$4.4 million shall be paid to the holders of the Series 1 Preferred Shares. FCE Ltd. has the option of making dividend payments in the form of common stock or cash under the Series 1 Preferred Shares provisions.

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 \$1.07 (our common stock closing price on October 31, 2011) and an exchange rate of Cdn.\$1.00 to U.S.\$1.00 (exchange rate on October 31, 2011) at the time of conversion, we would be required to issue approximately 4,372,643 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 our Annual Report on Form 10-K for the year ended October 31, 2011). Such methods, estimates and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time that could lead us to reevaluate our methods, estimates and judgments.

As we gain experience in future periods, management will continue to reevaluate its estimates for contract margins, service agreements, warranty, performance guarantees, liquidated damages and inventory reserves. Changes in those estimates and judgments could significantly affect our results of operations and financial condition. We may also adopt changes required by the Financial Accounting Standards Board and the Securities and Exchange Commission.

**Table of Contents****Item 1B. UNRESOLVED STAFF COMMENTS**

None

**Item 2. PROPERTIES**

The following is a summary of our offices and locations:

<b>Location</b>	<b>Business Use</b>	<b>Square Footage</b>	<b>Lease Expiration Dates</b>
Danbury, Connecticut	Corporate Headquarters, Research and Development, Sales, Marketing, Purchasing and Administration and administrative	72,000	Company owned
Torrington, Connecticut	Manufacturing and administrative	65,000	December-2015
Danbury, Connecticut	Manufacturing and Operations	38,000	October-2014

**Item 3. LEGAL PROCEEDINGS**

None

**Table of Contents****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 trades under the symbol FCEL on the Nasdaq Global Market. 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 Global Market during the indicated quarters.

	<b>Common Stock Price</b>	
	<b>High</b>	<b>Low</b>
First quarter (through January 06, 2012)	\$ 1.12	\$ 0.83
<b><i>Year Ended October 31, 2011</i></b>		
First Quarter	\$ 2.41	\$ 1.12
Second Quarter	\$ 2.23	\$ 1.55
Third Quarter	\$ 1.97	\$ 1.25
Fourth Quarter	\$ 1.42	\$ .80
<b><i>Year Ended October 31, 2010</i></b>		
First Quarter	\$ 4.02	\$ 2.76
Second Quarter	\$ 3.40	\$ 2.57
Third Quarter	\$ 2.95	\$ 1.02
Fourth Quarter	\$ 1.42	\$ 1.04

On January 6, 2012, the closing price of our common stock on the Nasdaq Global Market was \$0.94 per share. As of January 6, 2012, there were 578 holders of record of our common stock. This does not include the number of persons whose stock is in nominee or street name accounts through brokers.

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.

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**Performance Graph**

The following graph compares the annual change in the Company's cumulative total stockholder return on its Common Stock for the five fiscal years ended October 31, 2011 with the cumulative stockholder total return on the Russell 2000 Index 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 ( Peer Index ). It assumes \$100 invested on November 1, 2006 with dividends reinvested.

**Series 1 Preferred Shares**

We have 1,000,000 Series 1 Preferred Shares issued and outstanding. The Series 1 Preferred Shares were issued by FCE Ltd., one of our wholly-owned subsidiaries. We have guaranteed the obligations of FCE Ltd. under the Series 1 Preferred Shares.

On March 31, 2011, the Company entered into an agreement with Enbridge to modify the provision of Series 1 Preferred Shares of FCE Ltd. Enbridge is the sole holder of the Series 1 Preferred Shares. Consistent with the previous Series 1 preferred share agreement FuelCell Energy, Inc. continues to guarantee the return of principal and dividend obligations of FCE Ltd. to the Series 1 preferred shareholders under the modified agreement.

Under the original Series 1 Preferred Shares provisions, FCE Ltd. had an accrued and unpaid dividend obligation of approximately Cdn. \$12.5 million representing the deferral of dividends plus additional dividends thereon. Payment was originally due to Enbridge as of December 31, 2010, but was subsequently extended based on mutual consent. Under the modified share provisions, the Company is required to make (i) equal quarterly return of capital cash payments to the holders of the Series 1 Preferred Shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011 and (ii) additional return of capital cash payments, as consideration for the one-year deferral, calculated at a 9.8 percent rate per annum on the unpaid Cdn. \$12.5 million obligation, which additional payments will also be made to the holders of the Series 1 Preferred Shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011.

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Under the original Series 1 Preferred Shares provisions, FCE Ltd. was to make annual dividend payments totaling Cdn. \$1,250,000. The modified terms of the Series 1 Preferred Shares adjust these payments to (i) annual dividend payments of Cdn\$500,000 and (ii) annual return of capital payments of Cdn. \$750,000. These payments commenced on March 31, 2011 and will end on December 31, 2020. Dividends accrue at a 1.25% quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends (inclusive of the Cdn\$12.5 million unpaid dividend balance as of the modification date) at a rate of 1.25% per quarter, compounded quarterly. On December 31, 2020 the amount of all accrued and unpaid dividends on the Series 1 Preferred Shares of Cdn\$21.1 million and the balance of the principal redemption price of Cdn\$4.4 million shall be paid to the holders of the Series 1 Preferred Shares. FCE Ltd. has the option of making dividend payments in the form of common stock or cash under the Series 1 Preferred Shares provisions.

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\$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 percent of the then current market price (in Cdn.\$) of shares of our common stock at the time of conversion.

The foregoing conversion prices are subject to adjustment for certain subsequent events.

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 \$1.07 (our common stock closing price on October 31, 2011) and an exchange rate of Cdn.\$1.00 to U.S.\$1.00 (exchange rate on October 31, 2011) at the time of conversion, we would be required to issue approximately 4,372,643 shares of our common stock.

The Series 1 Preferred Shares are redeemable by FCE for Cdn.\$25 per share less all amounts paid on or before the redemption date as a return of capital, plus all unpaid dividends and accrued interest. Holders of the Series 1 Preferred Shares do not have any mandatory or conditional redemption rights.

In the event of the liquidation or dissolution of FCE, the holders of Series 1 Preferred Shares will be entitled to receive Cdn.\$25 per share less all amounts paid on or before the liquidation or dissolution event, plus all unpaid dividends and accrued interest before any amount will be paid or any of FCE's property or assets will be distributed to the holders of FCE's common stock. After payment to the holders of the Series 1 Preferred Shares of the amounts payable to them, the holders of the Series 1 Preferred Shares will not be entitled to any other distribution of FCE's property or assets.



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### **Series B Preferred Shares**

We have 250,000 shares of our 5 percent Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000) ( Series B Preferred Stock ) authorized for issuance. At October 31, 2011 and 2010, there were 64,020 shares of Series B Preferred Stock issued and outstanding. 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. The following is a summary of certain provisions of our Series B Preferred Stock.

#### *Ranking*

Shares of 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. Unpaid accumulated dividends do not bear interest.

The dividend rate is subject to upward adjustment as set forth in the Certificate of Designation if we fail to pay, or to set apart funds to pay, any quarterly dividend. The dividend rate 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 Stock (or the underlying common shares) under the Registration Rights Agreement.

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

The dividend on the Series B Preferred Stock may be paid 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. Dividends of \$3.2 million were paid in each of the years ended October 31, 2011, 2010 and 2009. There were no cumulative unpaid dividends at October 31, 2011.

#### *Liquidation*

The Series B Preferred Stock stockholders are entitled to receive, in the event that we are liquidated, dissolved or wound up, whether voluntary or involuntary, \$1,000 per share plus all accumulated and unpaid dividends to the date of that liquidation, dissolution, or winding up ( Liquidation Preference ). Until the holders of Series B Preferred Stock receive their Liquidation Preference in full, no payment will be made on any junior shares, including shares of our common stock. After the Liquidation Preference is paid in full, holders of the Series B Preferred Stock will not be entitled to receive any further distribution of our assets. At October 31, 2011 and 2010, the Series B Preferred Stock had a Liquidation Preference of \$64.0 million.

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*Conversion Rights*

Each Series B Preferred Stock share 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 in the Certificate of Designation, but will not be adjusted for accumulated and unpaid dividends. If converted, holders of Series B Preferred Stock do not receive a cash payment for all accumulated and unpaid dividends; rather, all accumulated and unpaid dividends are cancelled.

We may, at our option, cause shares of 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 percent of the then prevailing conversion price (\$11.75 at October 31, 2011) for 20 trading days during any consecutive 30 trading day period, as described in the Certificate of Designation.

*Redemption*

We do not have the option to redeem the shares of Series B Preferred Stock. However, holders of the Series B Preferred Stock can require us to redeem all or part of their shares at a redemption price equal to the Liquidation Preference of the shares to be redeemed in the case of a fundamental change (as described in the Certificate of Designation).

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 percent 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.

*Voting Rights*

Holders of Series B Preferred Stock currently have no voting rights; however, holders may receive certain voting rights, as described in the Certificate of Designation, if (1) dividends on any shares of Series B Preferred Stock, or any other class or series of stock ranking on a parity with the Series B Preferred Stock with respect to the payment of dividends, shall be in arrears for dividend periods, whether or not consecutive, for six calendar quarters or (2) we fail to pay the redemption price, plus accrued and unpaid dividends, if any, on the redemption date for shares of Series B Preferred Stock following a fundamental change.

So long as any shares of Series B Preferred Stock remain outstanding, we will not, without the consent of the holders of at least two-thirds of the shares of 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 the 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 the 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 Series B Preferred Stock or the holders thereof without the affirmative vote of not less than two-thirds of the issued and outstanding Series B Preferred Stock shares.

**Table of Contents****Equity Compensation Plan Information**

See Part III, Item 12 for information regarding securities authorized for issuance under our equity compensation plans.

**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, 2011 have been derived from our audited consolidated financial statements together with the notes thereto included elsewhere in this annual report on Form 10-K. The data set forth below is qualified by reference to, and should be read in conjunction with our consolidated financial statements and their notes and Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this annual report on Form 10-K.

**Consolidated Statement of Operations Data:**

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

	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
Revenues:					
Product sales and revenues	\$ 115,104	\$ 59,226	\$ 73,804	\$ 82,748	\$ 32,517
Research and development contracts	7,466	10,551	14,212	17,987	15,717
Total revenues	122,570	69,777	88,016	100,735	48,234
Costs and expenses:					
Cost of product sales and revenues	127,350	78,060	107,033	134,038	61,827
Cost of research and development contracts	7,830	10,370	10,994	16,059	13,438
Total cost of revenues	135,180	88,430	118,027	150,097	75,265
Gross loss	(12,610)	(18,653)	(30,011)	(49,362)	(27,031)
Operating expenses:					
Administrative and selling expenses	16,299	17,150	17,194	19,968	18,625
Research and development costs	16,768	18,562	19,160	23,471	27,489
Total costs and expenses	33,067	35,712	36,354	43,439	46,114
Loss from operations	(45,677)	(54,365)	(66,365)	(92,801)	(73,145)
Interest expense	(2,578)	(127)	(265)	(100)	(84)
Income/(loss) from equity investments	58	(730)	(812)	(1,867)	(1,263)
Interest and other income, net (1)	2,861	1,354	860	3,268	7,471
Redeemable minority interest	(525)	(2,367)	(2,092)	(1,857)	(1,653)
Provision for income tax	(113)	(91)			
Net loss	(45,974)	(56,326)	(68,674)	(93,357)	(68,674)

Net loss attributable to noncontrolling interest	261	663			
Net loss attributable to FuelCell Energy, Inc.	(45,713)	(55,663)	(68,674)	(93,357)	(68,674)
Adjustment for modification of redeemable preferred stock of subsidiary	(8,987)				
Preferred stock dividends	(3,200)	(3,201)	(3,208)	(3,208)	(3,208)
Net loss to common shareholders	\$ (57,900)	\$ (58,864)	\$ (71,882)	\$ (96,565)	\$ (71,882)
Net loss to common shareholders					
Basic	\$ (0.47)	\$ (0.63)	\$ (0.99)	\$ (1.41)	\$ (1.16)
Diluted	\$ (0.47)	\$ (0.63)	\$ (0.99)	\$ (1.41)	\$ (1.16)
Weighted average shares outstanding					
Basic	124,498	93,926	72,393	68,571	61,991
Diluted	124,498	93,926	72,393	68,571	61,991

(1) Includes net license fee income of \$34 and \$42 for years ended October 31, 2008 and 2007, respectively that were reported separately in prior years.

**Table of Contents****Consolidated Balance Sheet Data:**

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

	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
Cash and cash equivalents	\$ 51,415	\$ 20,467	\$ 57,823	\$ 38,043	\$ 92,997
Short-term investments (U.S. treasury securities)	12,016	25,019	7,004	30,406	60,634
Working capital	18,783	48,171	77,793	59,606	158,687
Total current assets	132,948	102,209	119,679	118,020	201,005
Long-term investments (U.S. treasury securities)		9,071		18,434	
Total assets	183,630	150,529	162,688	185,476	253,188
Total current liabilities	114,165	54,038	41,886	58,414	42,318
Total non-current liabilities	23,983	12,098	14,534	6,747	5,014
Redeemable minority interest		16,849	14,976	13,307	11,884
Redeemable preferred stock	59,857	59,857	59,950	59,950	59,950
Total (deficit) equity	(14,375)	7,687	31,342	47,058	134,022
Book value per share (1)	\$ (0.10)	\$ 0.07	\$ 0.37	\$ 0.68	\$ 1.97

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

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

The following discussion should be read in conjunction with information included in Item 8 of this report. Unless otherwise indicated, the terms "Company", "FuelCell Energy", "we", "us", and "our" refer to FuelCell Energy Inc. and its subsidiaries. All tabular dollar amounts are in thousands.

In addition to historical information, this discussion and analysis 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 our products will not occur when anticipated, general risks associated with product development and manufacturing, changes in the utility regulatory environment, potential volatility of energy prices, rapid technological change, competition, market acceptance of our products and our ability to achieve our 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 Item 1A "Risk Factors" in this report.

**Overview and Recent Developments**

***Overview***

We are a leading integrated fuel cell company with a growing global presence. We design, manufacture, sell, install and service ultra-clean, highly efficient stationary fuel cell power plants for distributed baseload power generation. Our power plants offer scalable on-site power and utility grid support, helping customers solve their energy, environmental and business challenges.

Global urban populations are expanding, becoming more industrialized and requiring greater amounts of power to sustain their growth. As policymakers and power producers struggle to find economical and readily available solutions that will alleviate the impact of harmful pollutants and emissions, the market for ultra-clean, efficient and reliable distributed generation is rapidly growing.

With fully commercialized ultra-clean fuel cell power plants and decades of experience in the industry, we are well positioned to grow our installed base of power plants. Our plants are operating in more than 50 locations worldwide and have generated more than one billion kilowatt hours (kWh) of electricity, which is equivalent to powering more than 90,000 average size U.S. homes for one year. Our installed base and steadily growing backlog exceeds 180 megawatts (MW).

Our diverse and growing customer base includes major electric utility companies, municipalities, universities, government entities and businesses in a variety of commercial and industrial enterprises. Our leading geographic markets are South Korea and the United States and we are actively pursuing expanding opportunities in Asia, Europe, Canada and Latin America.

We service the power plants for virtually every customer we have globally under long term service agreements. We monitor and operate the power plants around the clock from our technical assistance center located at our Danbury, Connecticut headquarters. We have an extensive service network of FuelCell Energy technicians that provide on-site service and maintenance.

***Recent Developments***

***POSCO Power 70 MW Order***

In May 2011, the Company announced a \$129 million order for 70 megawatts of fuel cell kits and other equipment and services to POSCO Power. Fuel cell kit shipments commenced during the fourth-quarter of fiscal 2011 in accordance with the order and will occur monthly through October 2013. Payment terms included a down payment and milestone payments during the term of the contract. The Company received milestone payments of approximately \$51 million during fiscal 2011. POSCO Power is an independent power producer in South Korea and subsidiary of POSCO, a global steel producer.

**Table of Contents*****B1200 Repair and Upgrade Program***

During the second quarter of fiscal 2011, the Company incurred an obligation to repair and upgrade a select group of 1.2 megawatt (MW) fuel cell modules produced between 2007 and early 2009. The repair and upgrade obligation was based on events that occurred and knowledge obtained concerning the performance of this select group of modules during the second fiscal quarter of 2011 however, the formal agreement to begin the repair and upgrade program was not finalized until May 2011. The program commenced in the third quarter of 2011 and is expected to conclude by mid-2012. The Company recorded a charge of approximately \$8.8 million during the quarter ended April 30, 2011 recorded as a cost of product sales and revenues on the consolidated statements of operations. In the fourth quarter of fiscal 2011, the Company reduced its estimate for future repair costs under this program resulting in a benefit to cost of product sales and revenues of \$0.5 million. During fiscal 2011, the Company incurred actual costs of \$2.9 million, including \$1.8 million of repair costs and \$1.1 million of module replacement costs, net of the estimated fair value of the deployed module asset at the end of the respective LTSA contract term as the life of the deployed assets are expected to be greater than the remaining contract term.

***Series 1 Preferred Share Obligation***

On March 31, 2011, the Company entered into an agreement with Enbridge, Inc. ( Enbridge ) to modify the Class A Cumulative Redeemable Exchangeable Preferred Shares agreement (the Series 1 preferred share agreement ) between FCE FuelCell Energy Ltd. ( FCE Ltd ), a wholly-owned subsidiary of FuelCell Energy, and Enbridge, the sole holder of the Series 1 preferred shares. Consistent with the previous Series 1 preferred share agreement, FuelCell Energy continues to guarantee the return of principal and dividend obligations of FCE Ltd. to the Series 1 preferred shareholders under the modified agreement. The modification of the Series 1 preferred share agreement resulted in a reclassification of the instrument on the consolidated balance sheet from redeemable minority interest to a liability (preferred stock obligation of subsidiary). As a result of this modification and reclassification, the Company revalued the instrument. The revaluation of the Series 1 Preferred shares resulted in a reduction of additional paid in capital of \$9.0 million, which is also presented on the consolidated statement of operations as a charge to modification of redeemable preferred stock of subsidiary to arrive at net loss to common shareholders and is included in the calculation of earnings per share for net loss to common shareholders. The Company made its scheduled payments of Cdn. \$10.9 million during fiscal 2011 under the terms of the modified agreement including the recording of interest expense of approximately Cdn. \$2.3 million. As of October 31, 2011, the carrying value of the Series 1 Preferred shares was Cdn.\$16.6 million (\$16.7 million USD) and is classified as preferred stock obligation of subsidiary on the consolidated balance sheets. Refer to Note 12 of Notes to Consolidated Financial Statements for more information.

***Registered Direct Offering***

On January 13, 2011 we sold an aggregate of 10,160,428 units at a negotiated price of \$1.87 per unit, with each unit consisting of (i) one share of FuelCell Energy, Inc. common stock, par value \$0.0001 per share ( Common Stock ) and (ii) one warrant to purchase 1.0 share of Common Stock, in a registered direct offering for gross proceeds of \$19.0 million. The net proceeds from the sale of the units, after deducting the placement agent fees and other offering expenses, were approximately \$17.8 million. The warrants have an exercise price of \$2.29 per share and are exercisable beginning on the date that is six months and one day after the closing date and will expire twenty one months after issuance.

Additionally, FuelCell Energy exercised its right in the fourth quarter of fiscal 2011 to require the investor to purchase 10,000,000 additional shares. The sale price for the additional shares was based on a fixed ten percent discount to a volume weighted average price ( VWAP ) measurement at the time we exercised the option. The net proceeds from the sale of the units, after deducting agent fees and other expenses, were approximately \$8.7 million.

**Table of Contents****Results of Operations**

Management evaluates the results of operations and cash flows using a variety of key performance indicators including revenues compared to prior periods and internal forecasts, 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.

Results of Operations are presented in accordance with accounting principles generally accepted in the United States ( GAAP ) and as adjusted for certain items referenced below. Management also uses non-GAAP measures which exclude non-recurring items in order to measure operating periodic performance. Adjustments to GAAP are referenced below under Revenues and Costs of Revenues and Net Loss to Common Shareholders . We have added this information because we believe it helps in understanding the results of our operations on a comparative basis. This adjusted information supplements and is not intended to replace performance measures required by U.S. GAAP disclosure.

**Comparison of the Years Ended October 31, 2011 and October 31, 2010****Revenues and Costs of revenues**

Our revenues and cost of revenues for the years ended October 31, 2011 and 2010 were as follows:

	<b>Years Ended October 31,</b>		<b>Change</b>	
	<b>2011</b>	<b>2010</b>	<b>\$</b>	<b>%</b>
<b>Revenues:</b>				
Product sales and revenues	\$ 115,104	\$ 59,226	\$ 55,878	94
Research and development contracts	7,466	10,551	(3,085)	(29)
Total	\$ 122,570	\$ 69,777	\$ 52,793	76
<b>Cost of revenues:</b>				
Product sales and revenues	\$ 127,350	\$ 78,060	\$ 49,290	63
Research and development contracts	7,830	10,370	(2,540)	(25)
Total	\$ 135,180	\$ 88,430	\$ 46,750	53
<b>Gross profit (loss):</b>				
Gross loss from product sales and revenues	\$ (12,246)	\$ (18,834)	\$ 6,588	(35)
Gross (loss) profit from research and development contracts	(364)	181	(545)	(301)
Total	\$ (12,610)	\$ (18,653)	\$ 6,043	(32)
Product Sales Cost-to-revenue ratio <sup>(1)</sup>	1.11	1.32		16

<sup>(1)</sup> Cost-to-revenue ratio is calculated as cost of product sales and revenues divided by product sales and revenues. Total revenues for the year ended October 31, 2011 increased \$52.8 million, or 76 percent, to \$122.6 million from \$69.8 million during the same period last year. Total cost of revenues for the year ended October 31, 2011 increased by \$46.8 million, or 53 percent, to \$135.2 million from \$88.4 million during the same period last year. A discussion of the changes in product sales and revenues and research and development contracts follows.

***Product sales and revenues***



Product sales and revenues increased \$55.9 million, or 94 percent, in the fiscal year ended October 31, 2011 to \$115.1 million compared to \$59.2 million for the prior year period. Product sales and revenues for fiscal year ended October 31, 2011 included \$88.0 million from the sale of power plants, fuel cell kits, fuel cell modules, and other fuel cell power plant components, \$15.0 million of revenue primarily from the design and delivery of capital equipment to POSCO Power for their fuel cell module assembly facility as well as construction and installation services, and \$12.1 million of revenue from service and power purchase agreements. This compared to product sales and revenues in fiscal 2010 which included \$46.5 million of product sales (complete power plants, modules and components), \$3.6 million related to the sale of stack module assembly and conditioning equipment to POSCO and for site engineering and construction work for projects where we are responsible for complete power plant system installation, \$6.9 million related to service agreements and component sales and \$2.2 million related to PPAs. The increase in revenues is attributable to increased order flow from the Korea and California markets and resulting increase in production over the prior year. As of October 31, 2011 our production run-rate was 56 MW. Maintaining this annual run rate is expected to result in product sales and revenues in the range of approximately \$31 million to \$34 million per quarter in fiscal 2012. Fuel cell kits are being produced at a rate of 2.8 MW per month through October 2013 to fulfill the 70 MW order received from POSCO Power in 2011. Planned production in fiscal 2012 includes 33.6 MW of fuel cell kits, 10 MW for other backlog and scheduled re-stacks under long-term service agreements and the balance reserved for projected new orders requiring delivery in 2012. The Company's production rate will be adjusted based on the timing and amount of new customer contracts.

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Cost of product sales and revenues increased \$49.3 million, or 63 percent in fiscal year ended October 31, 2011 to \$127.4 million compared to \$78.1 million in the same period the prior year. This increase is primarily due to the significant growth in revenues during fiscal 2011, as compared to fiscal 2010, as well as the B1200 repair and upgrade program charge totaling \$8.3 million. Fiscal 2011 cost of sales also reflects a benefit of approximately \$1.0 million from a vendor settlement related to certain prior period issues associated with components purchased from this vendor.

Included in the total cost of product sales and revenues reported above, Service agreement costs, net of revenues, totaled \$10.2 million for the fiscal year ended October 31, 2011 compared to \$13.9 million in the same period of the prior year. The decrease in net service agreement costs is primarily due to lower stack replacement and routine maintenance costs and increased revenues on new MW class product installations. The loss on service agreements has historically been due to high maintenance, stack replacement and other costs on older and sub-MW product designs. As these products are retired or become a smaller overall percentage of the installed fleet, we expect the loss on service agreements to continue to decline.

Gross loss for product sales and revenues improved to \$12.2 million, compared to \$18.8 million in fiscal 2010. The product cost-to-revenue ratio was 1.11-to-1.00 for fiscal year ended October 31, 2011 (1.03-to-1.00 excluding the \$8.3 million B1200 repair and upgrade charge) compared to 1.32-to-1.00 for fiscal year ended October 31, 2010. Improvements in margins and cost ratio are the result of improved absorption of fixed overhead costs from increased volume and lower product costs and aftermarket costs, partially offset by the B1200 repair and upgrade program.

Cost of product sales and revenues includes costs to manufacture and ship our power plants and power plant components to customers, site engineering and construction costs where we are responsible for power plant system installation, costs for stack module assembly and conditioning equipment sold to POSCO Power, warranty expense, liquidated damages and costs to service power plants for customers with long-term service agreements (including maintenance and stack replacement costs incurred during the period), PPA operating costs and lower of cost of market inventory adjustments.

We contract with a concentrated number of customers for the sale of our products and for research and development contracts. Refer to Note 1 of notes to consolidated financial statements for more information on customer concentrations.

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 concentrated 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 reduction in sales to, one or more of our larger customers, could have a material adverse effect on our business, financial condition and results of operations.

**Table of Contents*****Research and development contracts***

Research and development contracts revenue is derived primarily (greater than 90 percent) from the DOE and other governmental agencies. Research and development contracts revenue and related costs for the fiscal years ended October 31, 2011 and 2010 were as follows:

	<b>Years Ended October 31,</b>		<b>Percentage change</b>
	<b>2011</b>	<b>2010</b>	
Research and development contracts	\$ 7,466	\$ 10,551	(29%)
Cost of research and development contracts	7,830	10,370	(25%)
Gross (loss) profit	\$ (364)	\$ 181	(301%)

Research and development contracts revenue decreased \$3.1 million to \$7.5 million for fiscal 2011, compared to \$10.6 million for 2010. Cost of research and development contracts decreased \$2.5 million to \$7.8 million during fiscal 2011, compared to \$10.4 million for 2010. Gross profit (loss) from research and development contracts for 2011 was (\$0.4) million or (5 percent), compared to \$0.2 million or 2 percent in 2010. The decrease in revenue was due to lower levels of research activities compared to the prior period as phase II of the solid oxide fuel cell development program with the U.S. Department of Energy (DOE) ended. The Company began phase III of this program towards the end of the second quarter 2011. The decline in margins is due to the mix of cost share and lower overall government billing rates due to the increase in the commercial business.

**Administrative and selling expenses**

Administrative and selling expenses were \$16.3 million for the fiscal year ended October 31, 2011 compared to \$17.2 million during fiscal 2010 as a cost reduction initiative reduced expenses. Administrative and selling was lower primarily due to lower overall salary expense, lower stock based compensation and sales and marketing costs compared to the prior year period.

**Research and development expenses**

Research and development expenses decreased \$1.8 million to \$16.8 million during fiscal 2011, compared to \$18.6 million in 2010. The decrease is a result of lower overall headcount and increased support of commercial projects by our engineering staff during the period which are classified as cost of sales.

**Loss from operations**

Loss from operations for the fiscal year ended October 31, 2011 was \$45.7 million compared to a loss of \$54.4 million in 2010. The decrease is primarily due to improved product margins.

**Interest expense**

Interest expense, increased to \$2.6 million for fiscal year ended October 31, 2011 compared to \$0.1 million for fiscal year ended October 31, 2010. The increase is due to the modification of redeemable preferred stock of subsidiary, which is the previously discussed Series I preferred share obligation. Accounting guidance requires interest expense to be recorded on this instrument post-modification.

On March 31, 2011, the modified instrument had a carrying value of Cdn. \$25.2 million. The Company assessed the accounting guidance related to the classification of the preferred shares after the modification on March 31, 2011 and concluded that the preferred shares should be classified as a mandatorily redeemable financial instrument, and presented as a liability on the consolidated balance sheet. As of October 31, 2011, the carrying value of the Series 1 Preferred shares was Cdn. \$16.6 million (\$16.7 million USD) and is classified as Preferred stock obligation of subsidiary on the consolidated balance sheets. As of October 31, 2011, the current amount of this obligation totaled \$3.9 million and the long term amount totaled \$12.9 million. Accretion expense associated with this obligation will be recorded as interest expense on the consolidated statement of operations. For the year ended October 31, 2011, interest expense totaled approximately \$2.4 million.



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### **Income/loss from equity investments**

Equity income of \$0.1 million was recorded in fiscal year ended October 31, 2011 relating to our investment in Versa compared to a loss of \$0.7 million for the fiscal year ended October 31, 2010. The increase in Versa income is due to new research and development contracts entered into by Versa during fiscal 2011.

### **Interest and other income, net**

Interest and other income, net, increased to \$2.9 million for fiscal 2011 compared to \$1.4 million for 2010. The increase is due to higher royalty income related to our license agreements with POSCO Power as POSCO Power sold more DFC power plants in 2011 compared to 2010 as well as the benefit of foreign currency translation gains on the Series 1 Preferred stock obligation of subsidiary.

### **Accretion of Preferred Stock of Subsidiary**

The Series 1 Preferred Shares issued by our subsidiary, FCE Ltd., to Enbridge were originally recorded at a substantial discount to par value ( fair value discount ). On a quarterly basis, the carrying value of the Series 1 Preferred Shares was increased to reflect the passage of time with a corresponding non-cash charge (accretion). The accretion of the fair value discount was \$0.5 million and \$2.4 million for the fiscal years ended October 31, 2011 and 2010, respectively. The modification of the Series 1 preferred share agreement resulted in a reclassification of the instrument on the consolidated balance sheets from redeemable minority interest to a liability (preferred stock obligation of subsidiary). Refer to Recent Developments as well as the section on adjustment for modification of redeemable preferred stock of subsidiary below and Note 12 of Notes to Consolidated Financial Statements for more information.

### **Provision for income taxes**

We have not paid federal or state income taxes in several years due to our history of net operating losses, although we have paid foreign taxes in South Korea. For the fiscal year ended October 31, 2011 our provision for income taxes was \$0.1 million, which related to South Korean tax obligations. Although we were gross margin profitable for the third and fourth fiscal quarters of 2011, we cannot estimate when production volumes will be sufficient to generate taxable income. Accordingly, no tax benefit has been recognized for these net operating losses or other deferred tax assets as significant uncertainty exists surrounding the recoverability of these deferred tax assets. Approximately \$4.2 million of our valuation allowance would reduce additional paid in capital upon subsequent recognition of any related tax benefits.

As of October 31, 2011, we had \$629 million of federal NOL carryforwards that expire in the years 2020 through 2031 and \$357 million in state NOL carryforwards that expire in the years 2012 through 2031. Additionally, we had \$9.3 million of state tax credits available, of which \$1 million expires in 2018. The remaining credits do not expire.

### **Net loss attributable to noncontrolling interest**

The net loss attributed to the noncontrolling interest for years ended October 31, 2011 and October 31, 2010 was \$0.3 million and \$0.7 million, respectively.

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**Adjustment for modification of redeemable preferred stock of subsidiary**

Modification of redeemable preferred stock of subsidiary resulted in a charge of \$9.0 million for year ended October 31, 2011. Due to the reclassification of the instrument to a liability, the Company has accounted for this modification of the Series 1 Preferred shares as an extinguishment and therefore the difference between the fair value of the consideration transferred to the holders of the preferred stock and the carrying amount of the preferred stock on our balance sheet prior to the modification represents a return to the preferred stockholder and treated in a manner similar to the treatment of dividends paid on preferred stock. Accordingly, the difference between (1) the fair value of the Series 1 Preferred shares and (2) the carrying amount of the Series 1 Preferred shares our balance sheet prior to the modification was subtracted from net loss to arrive at loss to common stockholders in the calculation of earnings per share. The revaluation of the Series 1 Preferred shares resulted in a reduction of additional paid in capital of \$9.0 million, which is also presented on the consolidated statements of operations as a charge to modification of redeemable preferred stock of subsidiary to arrive at net loss to common shareholders and is included in the calculation of earnings per share for net loss to common shareholders. The Company made its scheduled payments of Cdn. \$10.9 million during fiscal 2011 under the terms of the modified agreement, including the recording of interest expense of approximately Cdn. \$2.3 million. As of October 31, 2011, the carrying value of the Series 1 Preferred shares was Cdn.\$16.6 million (\$16.7 million USD) and is classified as preferred stock obligation of subsidiary on the consolidated balance sheets.

**Preferred Stock dividends**

Dividends recorded on the Series B Preferred Stock were \$3.2 million in each for the fiscal year end periods of October 31, 2011, 2010 and 2009.

**Net loss to common shareholders and loss per common share**

Net loss to common shareholders represents the net loss for the period less the net loss attributable to noncontrolling interest less the preferred stock dividends on the Series B Preferred Stock and the \$9.0 million adjustment for the modification of redeemable preferred stock of subsidiary. For the fiscal years ended October 31, 2011 and 2010, net loss to common shareholders was \$57.9 million and \$58.9 million, respectively and loss per common share was \$(0.47) and \$(0.63), respectively.

**Table of Contents****Comparison of the Years Ended October 31, 2010 and October 31, 2009****Revenues and Costs of revenues**

Our revenues and cost of revenues for the years ended October 31, 2010 and 2009 were as follows:

	<b>Years Ended October 31,</b>		<b>Change</b>	
	<b>2010</b>	<b>2009</b>	<b>\$</b>	<b>%</b>
<b>Revenues:</b>				
Product sales and revenues	\$ 59,226	\$ 73,804	\$ (14,578)	(20)
Research and development contracts	10,551	14,212	(3,661)	(26)
Total	\$ 69,777	\$ 88,016	\$ (18,239)	(21)
<b>Cost of revenues:</b>				
Product sales and revenues	\$ 78,060	\$ 107,033	\$ (28,973)	(27)
Research and development contracts	10,370	10,994	(624)	(6)
Total	\$ 88,430	\$ 118,027	\$ (29,597)	(25)
<b>Gross profit (loss):</b>				
Gross loss from product sales and revenues	\$ (18,834)	\$ (33,229)	\$ 14,395	(43)
Gross profit from research and development contracts	181	3,218	(3,037)	(94)
Total	\$ (18,653)	\$ (30,011)	\$ 11,358	(38)
Product Sales Cost-to-revenue ratio <sup>(1)</sup>	1.32	1.45		(9)

<sup>(1)</sup> Cost-to-revenue ratio is calculated as cost of product sales and revenues divided by product sales and revenues. Total revenues for the year ended October 31, 2010 decreased by \$18.2 million, or 21 percent, to \$69.8 million from \$88.0 million during the same period last year. Total cost of revenues for the year ended October 31, 2010 decreased by \$29.6 million, or 25 percent, to \$88.4 million from \$118.0 million during the same period last year.

We contract with a concentrated number of customers for the sale of our products and for research and development contracts. Refer to Note 1 of notes to consolidated financial statements for more information on customer concentrations.

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 effect on our business, financial condition and results of operations.

***Product sales and revenues***

We historically sold our fuel cell products below cost while the market develops and product costs are reduced. We have been engaged in a formal commercial cost-out program since 2003 to reduce the total life cycle costs of our power plants and have made significant progress primarily through value engineering our products, manufacturing process improvements, higher production levels, technology improvements and global sourcing. During fiscal 2009,

we began production of our newest MW-class power plants. 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. As a result, we experienced significant improvement in our manufactured product margins during fiscal 2010. The overall product cost-to-revenue ratio (including warranty expenses, liquidated damages, costs to service power plants for customers with LTSAs, PPA operating costs and LCM adjustments) improved to 1.32 in fiscal 2010 from 1.45 in fiscal 2009.



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Product sales and revenues decreased \$14.6 million to \$59.2 million for fiscal 2010, compared to \$73.8 million for fiscal 2009. Lower product revenue resulted from the transition in product sales mix to POSCO from complete power plants in fiscal 2009 to a larger proportion in fiscal 2010 being only for the stack module part of the power plant. Partially offsetting this decline was higher revenue from LTSAs due to sales of service agreements on power plant installations in South Korea. Revenue in fiscal 2010 included \$46.5 million of product sales (complete power plants, modules and components), \$3.6 million related to the sale of stack module assembly and conditioning equipment to POSCO and for site engineering and construction work for projects where we are responsible for complete power plant system installation, \$6.9 million related to service agreements and component sales and \$2.2 million related to PPAs. Revenue in fiscal 2009 included \$63.2 million of power plant sales, \$2.0 million related to site engineering and construction work for projects where we are responsible for complete power plant system installation, \$6.0 million related to service agreements and component sales and \$2.6 million of revenue related to PPAs. The amount of future product sales and revenues is based on the timing and amount of new customer contracts.

Cost of product sales and revenues decreased to \$78.1 million for fiscal 2010, compared to \$107.0 million during 2009. This decrease is due to the transition of production for POSCO from complete power plants to only the stack module part of the power plant, production of lower cost products and the impact from higher costs in 2009 due to delays in commissioning and final acceptance testing on the first multi-megawatt products installed in South Korea. Although we did continue to incur some post installation issues in fiscal 2010 in South Korea, they were significantly less than in fiscal 2009.

A subset of the totals reported above, Service agreements and aftermarket costs, net of revenues, totaled \$13.9 million for the fiscal year ended October 31, 2010 compared to \$14.4 million in the same period of the prior year. The decrease in net service agreement and aftermarket costs is primarily due to lower stack replacement and routine maintenance costs.

Cost of product sales and revenues includes costs to manufacture and ship our power plants and power plant components to customers, site engineering and construction costs where we are responsible for power plant system installation, costs for stack module assembly and conditioning equipment sold to POSCO, warranty expense, liquidated damages and costs to service power plants for customers with long-term service agreements (including maintenance and stack replacement costs incurred during the period), PPA operating costs and LCM adjustments.

***Research and development contracts***

Research and development contracts revenue is derived primarily (greater than 90 percent) from the DOE and other governmental agencies. Research and development contracts revenue and related costs for the fiscal years ended October 31, 2010 and 2009 were as follows:

	<b>Years Ended October 31,</b>		<b>Percentage change</b>
	<b>2010</b>	<b>2009</b>	
Research and development contracts	\$ 10,551	\$ 14,212	(26%)
Cost of research and development contracts	10,370	10,994	(6%)
Gross profit	\$ 181	\$ 3,218	(94%)

Research and development contracts revenue decreased \$3.7 million to \$10.5 million for fiscal 2010, compared to \$14.2 million for 2009. Cost of research and development contracts decreased \$0.6 million to \$10.4 million during fiscal 2010, compared to \$11.0 million for 2009. Margin from research and development contracts for 2010 was \$0.2 million or 2 percent, compared to \$3.2 million or 23 percent in 2009. The decline in revenue was primarily due to lower activity on the SECA program.



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**Administrative and selling expenses**

Administrative and selling expenses remained unchanged at \$17.2 million during fiscal 2010, compared to 2009.

**Research and development expenses**

Research and development expenses decreased \$0.6 million to \$18.6 million during fiscal 2010, compared to \$19.2 million in 2009. The decrease is related to the cash management plan implemented in fiscal 2009 and increased support by the Company's engineers on non-research and development activities.

**Loss from operations**

Loss from operations for the fiscal year ended October 31, 2010 was \$54.4 million compared to a loss of \$66.4 million in 2009. The improvement in net loss from operations was due to the \$11.4 million net improvement in gross margin on product sales and research and development contracts and lower research and development expenses.

**Loss from equity investments**

Our ownership interest in Versa Power Systems, Inc. ( Versa ) at October 31, 2010 was 39 percent, unchanged from 2009. We account for the investment under the equity method of accounting. Our share of equity losses from Versa decreased \$0.1 million to \$0.7 million in fiscal 2010 compared to \$0.8 million in 2009. This decrease was due to lower cost share requirements on research and development activity being performed by Versa.

**Interest and other income, net**

Interest and other income, net, increased to \$1.4 million for fiscal 2010 compared to \$0.9 million for 2009. The increase is due to license fee income on the POSCO technology transfer agreements.

**Provision for income taxes**

We have not paid federal or state income taxes in several years due to our history of net operating losses, although we have paid foreign taxes in South Korea. In fiscal 2010, our provision for income taxes was \$0.1 million, which related to South Korean tax obligations. During 2009, we began manufacturing products that are gross margin profitable on a per unit basis; however, we cannot estimate when production volumes will be sufficient to generate taxable income. Accordingly, no tax benefit has been recognized related to current or prior year losses and other deferred tax assets as significant uncertainty exists surrounding the recoverability of these deferred tax assets. Approximately \$4.2 million of our valuation allowance would reduce additional paid in capital upon subsequent recognition of any related tax benefits.

As of October 31, 2010, we had \$541 million of federal NOL carryforwards that expire in the years 2020 through 2030 and \$343 million in state NOL carryforwards that expire in the years 2011 through 2030. Additionally, we had \$8.7 million of state tax credits available, of which \$1.0 million expires in 2018. The remaining credits do not expire.

**Net loss attributable to noncontrolling interest**

The net loss attributed to the noncontrolling interest for 2010 was \$0.7 million.

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### **Liquidity and Capital Resources**

Our future liquidity will be dependent on obtaining the order volumes and cost reductions necessary to achieve profitable operations. We estimate that we can achieve Company profitability at an annual production rate of 80 MW to 90 MW based on sales mix. Annual production capacity at our manufacturing facility is up to 90 MW with full utilization under its current configuration. Actual results will depend on product mix, volume, future service costs, and market pricing.

During fiscal 2010, our manufacturing run-rate was an annualized 22 MW. In response to the increased level of orders added to backlog, we increased our annual production run rate to 35 MW per year during the fourth quarter of fiscal year 2010 and increased our annual production rate to 56 MW annually during in the third quarter of fiscal year 2011. We produced 46 MW in fiscal 2011.

Our current manufacturing capacity is up to 90 MW and we expect to invest approximately \$3 million to \$5 million for upgrades and maintenance of production assets during 2012. With increasing order flow, our plan is to expand production capacity to approximately 150 MW. This expansion will require the addition of equipment (e.g. furnaces, tape casting and other equipment) to increase the capacity of certain manufacturing operations. Due to the economies of scale and equipment required, we believe it is more cost effective to add capacity in large blocks. We estimate that an expansion to 150 MW will require additional capital investments of \$30 to \$40 million, although this expansion may occur in stages depending on the level of market demand.

Increasing annual order volume and reduced product costs are expected to reduce annual cash use and we expect positive cash flows at an annual production rate of 80 – 90 MW. In addition, we may also raise capital through a combination of; (i) equity or strategic investments, (ii) debt financing; with improving operating results as the business grows, the Company expects to have access to the debt markets to finance capital expansion and (iii) potential local or state Government loans or grants in return for manufacturing job creation. The timing and size of any financing will depend on multiple factors including market conditions, future order flow and the need to adjust production capacity. If we are unable to raise additional capital, our growth potential may be adversely affected and we may have to modify our plans. We anticipate that our existing capital resources, together with anticipated order, revenues and cash flows, will be adequate to satisfy our financial requirements and agreements through at least the next twelve months.

### **Cash Flows**

Cash, cash equivalents, and investments in U.S. treasuries totaled approximately \$63.4 million as of October 31, 2011 compared to \$54.6 million as of October 31, 2010.

Net use of cash, cash equivalents and investments during the year ended October 31, 2011 was \$21.6 million compared to \$42.4 million during the period ended October 31, 2010. These totals exclude proceeds from underwritten common stock offerings of \$26.5 million and \$32.1 million in 2011 and 2010, respectively as well as revolver net borrowings of \$4.0 million in 2011. Cash receipts from progress payments for commercial orders combined with the favorable impact of improved product margins resulted in lower cash, cash equivalents and investments in US treasuries utilization during the period ended October 31, 2011 compared to the prior year, partially offset by higher return of capital payments on the Company's Series 1 Preferred Share Obligation (Refer to Recent Developments for further information).

Cash and cash equivalents as of October 31, 2011 was \$51.4 million compared to \$20.5 million as of October 31, 2010. The key components of our cash inflows and outflows were as follows:

**Operating Activities** Cash used in operating activities was \$8.5 million during fiscal year 2011 compared to \$35.0 million used in operating activities during 2010. The decrease in operating cash use compared to the prior year period is a result of an increase in deferred revenue due to new order milestone payments and an increase in accrued liabilities primarily due to the reserve established for the B1200 repair and upgrade program. These were partially offset by an increase in accounts receivable on customer collections and increased other assets primarily due to restacks under LTSA's (refer to discussion of Critical Accounting Policies and Estimates below). In addition, as a result of higher revenues during fiscal 2011 and strong order flow during the year, we increased our production volumes resulting in higher inventory.



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**Investing Activities** - Cash provided by investing activities was \$18.0 million during fiscal year 2011 compared to net cash used in investing activities of \$30.3 million during 2010. The increase of \$48.3 million was mainly due to the net maturity of U.S treasuries during 2011 of \$22.0 million, compared to a net purchase of U.S. treasuries of \$27.2 million during 2010. During fiscal year 2011 the Company has purchased capital equipment totaling \$3.4 million and invested \$0.6 million in Versa Power Systems, Inc.

**Financing Activities** - Cash provided by financing activities was \$21.4 million during fiscal year 2011 compared to net cash provided by financing activities of \$27.9 million in the prior year period. Cash provided by financing activities for fiscal 2011 and 2010 includes net proceeds from the sale and issuance of common stock, net of registration fees, of \$32.9 million and \$32.1 million, respectively. The decrease in financing cash in 2011 compared to 2010 is a result of the Company incurring higher return of capital payments on the Series 1 Preferred Share Obligation (Refer to Recent Developments for further information) during fiscal year 2011, compared to the prior year period. This decrease was partially offset by an increase in fiscal 2011 of \$4.0 million relating to borrowings on a new revolving credit facility.

The Company closed on a \$5.0 million revolving credit facility with JPMorgan Chase Bank, N.A. and the Export-Import Bank of the United States during fiscal year 2011 and had net borrowings of \$4.0 million during the period. The credit facility is to be used for working capital to finance the manufacture and production and subsequent export sale of the Company's products or services.

### **Sources and Uses of Cash and Investments**

We continue to invest in new product and market development and, as such, we are not currently generating positive cash flow from our operations on a consistent basis. Our operations are funded primarily through cash generated from product sales and research and development contracts, license fee income and sales of equity securities. In order to consistently produce positive cash flow from operations, we need to be successful at increasing annual order volume and implementing our cost reduction efforts. The status of these activities is described below.

#### *Increasing annual order volume*

We need to increase annual order volume to achieve profitability. Increased production volumes lower costs by leveraging supplier/purchasing opportunities, creating opportunities for incorporating manufacturing process improvements, and spreading fixed costs over more units. Our overall manufacturing process has a production capacity of up to 90 MW with full utilization. Updates on our key geographic markets are as follows:

**South Korea:** The Company continues to deepen and broaden its partnership with South Korea based POSCO Power. The \$129 million order for 70 MW of fuel cell kits and other equipment and services announced in May 2011 represents the beginning of demand related to the renewable portfolio standard that takes effect in 2012 and mandates approximately 6,000 MW through 2022. FuelCell Energy will supply 2.8 MW of fuel cell kits monthly beginning in October 2011 through October 2013 under the contract to support POSCO Power's production schedule of fuel cell modules. The size of the 70 MW order combined with the multi-year term has heightened interest in Direct FuelCells from prospective partners and customers in the United States and in Europe since the announcement.

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Using fuel cell components supplied by FuelCell Energy, POSCO Power assembled their first fuel cell stack during the third quarter of 2011 in their recently built fuel cell module assembly plant and installed the completed power plant at a customer site. The POSCO Power fuel cell module assembly and balance of plant facilities are designed for 100 MW annual capacity using fuel cell components purchased from FuelCell Energy. POSCO Power has ordered 140 MW of fuel cell power plants, modules and components from the Company since 2007.

POSCO Power continues to expand the fuel cell market in South Korea as they grow utility-scale installations, pursue commercial building opportunities with a demonstration 100 kilowatt (kW) unit, and develop export opportunities in Southeast Asia, beginning with Indonesia. The Company completed and shipped the two demonstration 100 kilowatt (kW) fuel cell modules under the joint development agreement with POSCO Power with one plant installed at a hospital and the second plant being installed at a public park.

*California:* Our products address the need by utilities for ultra-clean baseload distributed generation. The installed base in California continues to grow with the shipment of 12.4 MW of DFC plants during fiscal 2011. Recently, the California Public Utilities Commission updated the Self Generation and Incentive Program (SGIP) program and implemented a combined heat and power feed-in tariff program. The SGIP provides incentives for both clean natural gas and renewable biogas applications and has been shifted to a performance-based incentive.

The California Public Utilities Commission also recently enacted a long awaited feed-in tariff for CHP applications providing on-site power up to 20 MW in size. Under the feed-in tariff, excess electricity not used on-site can be sold to the grid at a price set by the CPUC called the Market Price Referent or MPR as long as the heat is used on-site. This feed-in tariff will improve the economics on fuel cell projects.

*Connecticut:* During fiscal 2011, the Company received an order for a 1.4 MW DFC plant to be installed at Central Connecticut State University. Connecticut adopted a comprehensive clean energy policy in June 2011 to expand energy efficiency and adoption of renewable power, including a long-term renewable energy credit (LREC) program. Beginning in January 2012, Connecticut utilities are required to open LREC procurement contracts for low emission renewable power projects 2 MW or less, which includes fuel cells. The program funding is \$300 million in total over 20 years with \$4 million required to be spent by utilities in 2012, the first year, increasing \$4 million per year to \$20 million by year 5, and then declining in year 16 and thereafter. Utilities can pay up to \$0.20/kWh for up to a 15 year term. The legislation also created a Green Bank with a broader mission than its predecessor, the Connecticut Clean Energy Fund, including purchases of LREC s and financing of renewable energy projects.

*Europe:* The European power generation market values efficiency and low emissions, and represents an untapped market for ultra-clean baseload distributed generation fuel cell power plants. Abengoa is an attractive partner as they understand the power industry, possess sufficient scale and reach to develop and grow a fuel cell market in the targeted geographies, and have the appropriate relationships to help educate regulatory bodies on the advantages of ultra-clean baseload distributed generation.

### ***Cost reduction efforts***

Product cost reductions are essential for us to further develop the market for our fuel cell products and attain profitability. Cost reductions will also reduce or eliminate the need for incentive funding programs which currently allow us to price our products to compete with grid-delivered power and other distributed generation technologies. Product cost reductions come from several areas including:

- engineering improvements;
- technology advances;

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supply chain management;  
production volume; and  
manufacturing process improvements.

**Commitments and Significant Contractual Obligations**

A summary of our significant future commitments and contractual obligations as of October 31, 2011 and the related payments by fiscal year is summarized as follows:

Contractual Obligations		Total	Payments Due by Period			
			Less than 1 year	1 - 3 years	3 - 5 years	More Than 5 years
Purchase Commitments	(1)	\$ 82,390	\$ 75,359	\$ 6,973	\$ 58	\$
Series 1 Preferred obligation	(2)	19,039	4,481	2,520	2,520	9,518
Term loans (principal and interest)		5,434	1,141	730	730	2,833
Capital and operating lease commitments	(3)	3,373	970	1,845	558	
Revolving Credit Facility	(4)	4,000	4,000			
Series B Preferred dividends payable	(5)					
Total		\$ 114,236	\$ 85,951	\$ 12,068	\$ 3,866	\$ 12,351

- (1) Purchase commitments with suppliers for materials, supplies and services incurred in the normal course of business.
- (2) Under the previous Series 1 preferred shares agreement, FCE Ltd. had an accrued and unpaid dividend obligation of approximately Cdn. \$12,500,000 representing the deferral of dividends plus interest from the commencement of the agreement in May 2004 to present. Payment was originally due to Enbridge as of December 31, 2010, but was subsequently extended based on mutual consent. Under the modified share provisions, the Company is required to make (i) equal quarterly returns of capital cash payments to the holders of the Series 1 preferred shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011 and (ii) additional return of capital payments, as consideration for the one-year deferral, calculated at a 9.8 percent rate per annum on the unpaid Cdn. \$12,500,000 obligation. Under the previous Series 1 preferred shares agreement, FCE Ltd. was to make annual dividend payments totaling Cdn. \$1,250,000. The terms of the Series 1 preferred share agreement were also modified to adjust these payments to (i) an annual amount of Cdn\$500,000 for dividends and (ii) an annual amount of Cdn.\$750,000 as return of capital payments payable in cash. These payments commenced on March 31, 2011 and end on December 31, 2020. Dividends accrue at a 1.25% quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends (inclusive of the Cdn\$12.5 million unpaid dividend balance as of the modification date) at a rate of 1.25% per quarter, compounded quarterly. On December 31, 2020 the amount of all accrued and unpaid dividends on the Series 1 preferred shares of Cdn\$21.1 million and the balance of the principal redemption price of Cdn\$4.4 million shall be paid to the holders of the Series 1 preferred shares. The Company has the option of making dividend payments in the form of common stock or cash under terms outlined in the preferred share agreement. For purposes of preparing the above table, the final balance of accrued and unpaid dividends due December 31, 2020 of Cdn\$21.1 million is assumed to be paid in the form of common stock and not included in this table.
- (3) Future minimum lease payments on capital and operating leases.



- (4) In January 2011, the Company entered into a \$5.0 million revolving credit facility with JPMorgan Chase Bank, N.A. and the Export-Import Bank of the United States. The credit facility is to be used for working capital to finance the manufacture and production and subsequent export sale of the Company's products or services. The agreement has a one year term with renewal provisions. The outstanding principal balance of the facility will bear interest, at the option of the Company of either the one-month LIBOR plus 1.5 percent or the prime rate of JP Morgan Chase. The facility is secured by certain working capital assets and general intangibles, up to the amount of the outstanding facility balance. At October 31, 2011, the outstanding amount owed under this facility was \$4.0 million.

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- (5) We are currently paying \$3.2 million in annual dividends on our Series B Preferred Stock. The \$3.2 million annual dividend payment has not been included in this table as we cannot reasonably determine the period when or if we will be able to convert the Series B Preferred Stock into shares of our common stock. We may, at our option, convert these shares into that number of shares of our common stock that are issuable at the then prevailing conversion rate if the closing price of our common stock exceeds 150 percent of the then prevailing conversion price (\$11.75) for 20 trading days during any consecutive 30 trading day period.

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, 2011, we had an outstanding balance of \$3.7 million on this loan. The interest rate is 5 percent and the loan is 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.

Bridgeport FuelCell Park, LLC ( BFCP ), one of our wholly-owned subsidiaries, has an outstanding loan with the Connecticut Clean Energy Fund, secured by assets of BFCP. Interest accrues monthly at an annual rate of 8.75 percent and repayment of principal and accrued interest is not required until the occurrence of certain events. As of October 31, 2011, no repayments of principal and interest have been made and we cannot reasonably determine when such repayments will begin. The outstanding balance on this loan, including accrued interest, is \$0.8 million as of October 31, 2011.

We have pledged approximately \$8.4 million of our cash and cash equivalents as collateral and standby letters of credit for certain banking requirements and contracts. As of October 31, 2011, outstanding standby letters of credit totaled \$7.1 million. These expire on various dates through May 2012.

As of October 31, 2011, we identified uncertain tax positions aggregating \$15.7 million and reduced our net operating loss carryforwards by this amount. Because of the level of net operating losses and valuation allowances, unrecognized tax benefits, even if not resolved in our favor, would not result in any cash payment or obligation and therefore have not been included in the contractual obligation table above.

In addition to the commitments listed in the table above, we have the following outstanding obligations:

*Power purchase agreements*

In California, we have 2.0 MW of power plant installations under power purchase agreements ranging in duration from six to eight years. 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 to run the power plants.

We qualified for incentive funding for these projects under California's 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 during the period specified by the government program. Revenue related to these incentive funds is recognized ratably over the performance period. As of October 31, 2011, we had remaining deferred incentive funding revenue of less than \$0.1 million.

*Service and warranty agreements*

We warranty our products for a specific period of time against manufacturing or performance defects. Our standard warranty period for products other than fuel cell kits is generally 15 months after shipment or 12 months after acceptance of the product. We have agreed to warranty fuel cell kits and components for 21 months from the date of shipment due to the additional shipping and customer manufacture time required. In addition to the standard product warranty, we have contracted with certain customers to provide services to ensure the power plants meet minimum operating levels for terms ranging from one to 20 years. Our standard LTSA term is five years. Pricing for service contracts is based upon estimates of future costs, which could be materially different from actual expenses. Also see Critical Accounting Policies and Estimates for additional details.



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### *Research and development cost-share contracts*

We have contracted with various government agencies to conduct research and development as either a prime contractor or sub-contractor under multi-year, cost-reimbursement and/or cost-share type contracts or cooperative agreements. Cost-share terms require that participating contractors share the total cost of the project based on an agreed upon ratio. In many cases, we are reimbursed only a portion of the costs incurred or to be incurred on the contract. 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 authorizes the funds. As of October 31, 2011, research and development sales backlog totaled \$15.8 million, of which \$9.0 million is funded. Should funding be delayed or if business initiatives change, we may choose to devote resources to other activities, including internally funded research and development.

### **Critical Accounting Policies and Estimates**

The preparation of financial statements and related disclosures requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Estimates are used in accounting for, among other things, revenue recognition, contract loss reserves, excess, slow-moving and obsolete inventories, product warranty costs, reserves on long-term service agreements, share-based compensation expense, allowance for doubtful accounts, depreciation and amortization, impairment of long-lived assets, income 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.

Our critical accounting policies are those that are both most important to our financial condition and results of operations and require the most difficult, subjective or complex judgments on the part of management in their application, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Our accounting policies are set-forth below.

### ***Revenue Recognition***

We earn revenue from (i) the sale and installation of fuel cell power plants and modules (ii) the sale of component part kits and spare parts to customers, (iii) site engineering and construction services (iv) providing services under long-term service agreements ( LTSA ), (v) the sale of electricity under power purchase agreements ( PPA ) as well as incentive revenue from the sale of electricity under PPA s, and (vi) customer-sponsored research and development projects. The Company periodically enters into arrangements with customers that involve multiple elements of the above items. We assess such contracts to ensure that consideration under the arrangement is being appropriately allocated to each of the deliverables. Our revenue is primarily generated from customers located throughout the U.S. and Asia and from agencies of the U.S. government. Revenue from customer-sponsored research and development projects is recorded as research and development contracts revenue and all other revenues are recorded as product sales and revenues in the consolidated statements of operations.

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For customer contracts for complete DFC Power Plants which the Company has adequate cost history and estimating experience and that management believes it can reasonably estimate total contract costs, revenue is recognized under the percentage of completion method of accounting. The use of percentage of completion accounting requires significant judgment relative to estimating total contract costs, including assumptions relative to the length of time to complete the contract, the nature and complexity of the work to be performed, anticipated increases in wages and prices for subcontractor services and materials, and the availability of subcontractor services and materials. Our estimates are based upon the professional knowledge and experience of our engineers, program managers and other personnel, who review each long-term contract on a quarterly basis to assess the contract's schedule, performance, technical matters and estimated cost at completion. Changes in estimates are applied retrospectively and when adjustments in estimated contract costs are identified, such revisions may result in current period adjustments to earnings applicable to performance in prior periods. Revenues are recognized based on the percentage of the contract value that incurred costs to date bear to estimated total contract costs, after giving effect to estimates of costs to complete based on most recent information. For customer contracts for new or significantly customized products, where management does not believe it has the ability to reasonably estimate total contract costs, revenue is recognized using the completed contract method and therefore all revenue and costs for the contract are deferred and not recognized until installation and acceptance of the power plant is complete. For all types of contracts, we recognize anticipated contract losses as soon as they become known and estimable. We have recorded an estimated contract loss reserve of \$0.1 million and \$0.6 million as of October 31, 2011 and October 31, 2010, respectively. Actual results could vary from initial estimates and reserve estimates will be updated as conditions change.

Revenue from component part kits and spare parts sales is recognized upon shipment or title transfer under the terms of the customer contract. Terms for certain contracts provide for a transfer of title and risk of loss to our customers at our factory locations upon completion of our contractual requirement to produce and products prepare the products for shipment. A shipment in place may occur in the event that the customer is unready to take delivery of the products on the contractually specified delivery dates.

Site engineering and construction services revenue is recognized on a percentage of completion basis as costs are incurred.

Revenue from LTSA contracts for power plants with our 5-year stack design is earned ratably over the term of the contract by performing routine monitoring and maintenance and by meeting a certain level of power output. For our legacy LTSA contracts on power plants with our older 3-year stack design, a portion of the contract value related to the stack replacement had been deferred. Upon stack replacement, revenue is recognized ratably over the remaining contract term. Revenue related to routine monitoring and maintenance under legacy contracts is recognized ratably over the full term of the contract. Although the Company has recently entered into LTSA contracts in excess of five years, no revenue has been recognized on these LTSA's.

Under PPA's, revenue from the sale of electricity is recognized as electricity is provided to the customer. Incentive revenue is recognized ratably over the term of the PPA.

Revenue from research and development contracts is recognized proportionally as costs are incurred and compared to the estimated total research and development costs for each contract. Revenue from government funded research and development 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, and on certain contracts we are reimbursed only a portion of the costs incurred. 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.

During fiscal 2011, the Company entered into a sales contract and supplemental agreement with one of its customers in which revenue is being recognized based upon the current guidance for multiple deliverable revenue arrangements. The guidance for an arrangement with multiple-deliverables states that the delivered items will be considered a separate unit of accounting if the following criteria are met:

The delivered item or items have value to the customer on a standalone basis.



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If the arrangement includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item or items is considered probable and substantially in the control of the vendor.

The components of the contract were evaluated and it was determined that each have standalone value to the customer. A selling price hierarchy is established for determining the selling price of the multiple deliverables. The selling price used for each deliverable will be based on vendor-specific objective evidence (VSOE) if available, third-party evidence (TPE) if VSOE is not available, or estimated selling price (ESP) if neither VSOE nor TPE is available. The Company evaluated the elements of the contract with the customer using this hierarchy and has determined that estimated selling prices would be utilized for each element. These estimated selling prices were principally based on the prices charged when these elements were sold separately on a limited basis in the past.

### ***Inventories and Advance Payments to Vendors***

Inventories consist principally of raw materials and work-in-process. In certain circumstances, we will make advance payments to vendors for future inventory deliveries. These advance payments are recorded as other current assets on the consolidated balance sheets.

Inventory is reviewed to determine if reserves are required for obsolescence (excess, obsolete, and slow-moving inventory). This review includes analyzing inventory levels of individual parts considering the current design of our products and production requirements as well as the expected inventory needs for maintenance on installed power plants.

### ***Warranty and Service Expense Recognition***

We warranty our products for a specific period of time against manufacturing or performance defects. Our warranty is limited to a term generally 15 months after shipment or 12 months after installation of our products, except for fuel cell kits. We have agreed to warranty fuel cell kits and components for 21 months from the date of shipment due to the additional shipping and customer manufacture time required. We reserve for estimated future warranty costs based on historical experience. We also provide for a specific reserve if there is a known issue requiring repair during the warranty period. Estimates used to record warranty reserves are updated as we gain further operating experience. As of October 31, 2011 and October 31, 2010, the warranty reserve, which is classified in accrued liabilities on the consolidated balance sheet, totaled \$1.1 million and \$0.7 million, respectively.

In addition to the standard product warranty, we have entered into LTSA contracts with certain customers to provide monitoring, maintenance and repair services for fuel cell power plants. Our standard service agreement term is five years. Under the terms of our LTSA, the power plant must meet a minimum operating output during the term. If minimum output falls below the contract requirement, we may be subject to performance penalties or may be required to repair or replace the customer's fuel cell stack. The Company has provided for a reserve for performance guarantees which based on historical fleet performance totaled \$2.2 million and \$1.2 million as of October 31, 2011 and October 31, 2010, respectively.

The Company provides for reserves on all LTSA agreements when the estimated future stack replacement and service costs are estimated to exceed the remaining contract value. This includes power plants with our legacy 3-year stack design. We expect the replacement of these older 3-year stack designs to continue into mid-2012. Reserve estimates for future costs on LTSA agreements are determined by a number of factors including the estimated life of the stack, used replacement stacks available, our limit of liability on service agreements and future operating plans for the power plant. Our reserve estimates are performed on a contract by contract basis and include cost assumptions based on what we anticipate the service requirements will be to fulfill obligations for each contract. As of October 31, 2011, our reserve on LTSA contracts totaled \$8.9 million compared to \$6.6 million as of October 31, 2010. The increase related to changes in estimates for future expected costs. Prior to February 1, 2010, we provided for a pricing reserve if the agreement was sold below our standard pricing. As a result of our experience with these contracts and production rates of stacks and related costing, effective February 1, 2010, contract losses have been estimated as described above. The result of this change in estimate was not material to the consolidated financial statements.

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At the end of our LTSA contracts, customers are expected to either renew the contract or we anticipate that the stack module will be returned to the Company as the plant is no longer being monitored or having routine service performed. In situations where the customer agrees at the time of a restack to return the stack to the Company at the end of the LTSA term, the cost of the stack is recorded as a long-term asset and depreciated over its expected life. If the Company does not obtain rights to title from the customer, the cost of the stack which is not recoverable is expensed. As of October 31, 2011, the total remaining stack value was \$15.1 million compared to \$2.0 million as of October 31, 2010. This balance is expected to increase over time as stack replacements occur. During fiscal year 2011, depreciation on this asset category totaled approximately \$2.4 million compared to \$0.1 in the prior year period.

During the second quarter of fiscal 2011, the Company committed to a repair and upgrade program for a select group of 1.2 megawatt (MW) fuel cell modules produced between 2007 and early 2009. The Company recorded a charge of approximately \$8.8 million during the quarter ended April 30, 2011 recorded as a cost of product sales and revenues on the consolidated statements of operations. In the fourth quarter of fiscal 2011, the Company reduced its estimate of future costs under this program by \$0.5 million recorded as a benefit to cost of product sales and revenues. Refer to the B1200 repair and upgrade program discussed in Recent Developments above.

### ***Share-Based Compensation***

We account for restricted stock awards (RSA s) based on the closing market price of the Company s common stock on the date of grant. We account for stock options awarded to employees and non-employee directors under the fair value method of accounting using the Black-Scholes valuation model to estimate fair value at the grant date. The model requires us to make estimates and assumptions regarding the expected life of the option, the risk-free interest rate, the expected volatility of our common stock price and the expected dividend yield. The fair value of equity awards is amortized to expense over the vesting period, generally four years. Share-based compensation was \$2.6 million and \$3.0 million for the fiscal years ended October 31, 2011 and 2010, respectively.

### ***Income Taxes***

Income taxes are accounted for under the liability method. Deferred tax assets and liabilities are determined based on net operating loss ( NOL ) carryforwards, research and development credit carryforwards, and differences between financial reporting and income tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates and laws expected to be in effect when the differences are expected to reverse. 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.

We apply the guidance regarding 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 company s financial statements reflect expected future tax consequences of such positions presuming the taxing authorities full knowledge of the position and all relevant facts.

The evaluation of a tax position is a two-step process. The first step is recognition: the company 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.



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Certain transactions involving the Company's beneficial ownership occurred in fiscal 2011 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 completed a detailed Section 382 study in fiscal 2011 to determine if any of our NOL and credit carryovers will be subject to limitation. Based on that study we have determined that there was no ownership change as of the end of our 2011 fiscal year under Section 382.

**Accounting Guidance Update*****Recently Adopted Accounting Guidance***

In April 2010, the FASB provided guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions. Research or development arrangements frequently include payment provisions whereby a portion or all of the consideration is contingent upon the achievement of milestone events. An entity may only recognize consideration that is contingent upon the achievement of a milestone in its entirety in the period the milestone is achieved only if the milestone meets certain criteria. We adopted this guidance effective November 1, 2010 and it did not impact our financial statements.

In December 2009, the FASB issued revised guidance related to the consolidation of variable interest entities ( VIE ). The revised guidance requires reporting entities to evaluate former qualified special purpose entities for consolidation, changes the approach to determining a VIE's primary beneficiary from a quantitative assessment to a qualitative assessment designed to identify a controlling financial interest, and increases the frequency of required reassessments to determine whether a company is the primary beneficiary of a VIE. It also clarifies, but does not significantly change, the characteristics that identify a VIE. We adopted this guidance effective November 1, 2010 and it did not impact our financial statements.

In October 2009, the FASB issued guidance updating accounting standards for revenue recognition for multiple-deliverable arrangements. The stated objective of the update was to address the accounting for multiple-deliverable arrangements to enable vendors to account for products or services separately rather than as a combined unit. The guidance provides amended methodologies for separating consideration in multiple-deliverable arrangements and expands disclosure requirements. We adopted this guidance for revenue arrangements entered into or materially modified after November 1, 2010 and it did not have a material impact on our financial statements or disclosures to date. Refer to Note 1 in the Notes to Consolidated Financial Statements for information on the multiple-deliverable arrangement evaluation performed on the 2011 POSCO contract.

In June 2009, the FASB issued accounting guidance which requires a company to perform ongoing reassessment of whether it is the primary beneficiary of a variable interest entity ( VIE ). Specifically, the guidance modifies how a company determines when an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. The guidance clarifies that the determination of whether a company is required to consolidate a VIE is based on, among other things, an entity's purpose and design and a company's ability to direct the activities of the VIE that most significantly impact the VIE's economic performance. The guidance requires an ongoing reassessment of whether a company is the primary beneficiary of a VIE and enhanced disclosures of the company's involvement in VIEs and any significant changes in risk exposure due to that involvement. We adopted this guidance effective November 1, 2010 and it did not have an impact on our financial statements.

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***Recent Accounting Guidance Not Yet Effective***

In January 2010, the FASB issued guidance that requires new disclosures for fair value measurements and provides clarification for existing disclosure requirements. This amended guidance requires disclosures about inputs and valuation techniques used to measure fair value as well as disclosures about significant transfers in and out of Levels 1 and Levels 2 fair value measurements and disclosures about the purchase, sale, issuance and settlement activity of Level 3 fair value measurements. This guidance is effective for interim and annual reporting periods beginning after December 15, 2009, except for disclosures about the purchase, sale, issuance and settlement activity of Level 3 fair value measurements, which is effective for fiscal years beginning after December 15, 2010. The Company was not impacted by the disclosures effective for interim periods beginning after December 15, 2009 and we do not expect the remaining disclosures required after December 15, 2010 upon adoption of this guidance will have a material impact on our financial statements or disclosures.

In May 2011, the FASB issued new guidance that clarifies and changes some fair value measurement principles and disclosure requirements. Among them is the clarification that the concepts of highest and best use and valuation premise in a fair value measurement, should only be applied when measuring the fair value of nonfinancial assets. Additionally, the new guidance requires quantitative information about unobservable inputs, and disclosure of the valuation processes used and narrative descriptions with regard to fair value measurements within the Level 3 categorization of the fair value hierarchy. The new guidance is effective for interim and annual reporting periods beginning after December 15, 2011, with early adoption prohibited. The adoption of this new guidance is not expected to have a material impact on our financial statements or disclosures.

In June 2011, the FASB issued guidance that eliminates the option to present items of other comprehensive income ( OCI ) as part of the statement of changes in stockholders' equity, and instead requires either OCI presentation and net income in a single continuous statement to the statement of operations, or as a separate statement of comprehensive income. This new guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011, with early adoption permitted. The Company is required to adopt this update in the first quarter of fiscal year 2013. The adoption of this accounting guidance is not expected to have a material impact on our financial statements.

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We typically invest in U.S. Treasury securities with maturities ranging from less than three months to one year or more. We expect to hold these investments until maturity and accordingly, these investments are carried at cost and not subject to mark-to-market accounting. At October 31, 2011, our U.S. Treasury investments had a carrying value of \$12.0 million and maturity dates ranging from November 15, 2011 to March 15, 2012. The fair value of these securities at October 31, 2011 approximated their carrying value. At October 31, 2010, our U.S. Treasury investments had a carrying value of \$34.1 million and maturity dates ranging from November 18, 2010 to March 15, 2012. The fair value of these securities at October 31, 2010 approximated their carrying value. Cash is invested overnight with high credit quality financial institutions and therefore we are not exposed to market risk from changing interest rates. Based on our overall interest rate exposure at October 31, 2011, including all interest rate sensitive instruments, a change in interest rates of one percent would affect our results of operations by approximately \$0.6 million.

**Foreign Currency Exchange Risk**

As of October 31, 2011, less than one percent of our total cash, cash equivalents and investments were in currencies other than U.S. dollars (Canadian dollars and South Korean Won). We 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.

**Derivative Fair Value Exposure*****Series 1 Preferred Stock***

Our Series 1 Preferred shares include embedded derivatives that require bifurcation from the host contract. Specifically, the embedded derivatives requiring bifurcation from the host contract include 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 in our consolidated balance sheets as of October 31, 2011 and 2010 was \$0.6 million and \$0.5 million, respectively. The fair value was 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 would change the underlying fair value with a corresponding charge or credit to earnings. However, any changes to the assumptions are not expected to have a material effect on our results of operations or financial condition.

***Warrants***

In connection with our investment in Versa, we received warrants for the right to purchase additional shares of Versa's common stock. At October 31, 2011 and 2010, we held warrants for the right to purchase 4,830 and 3,969 shares of Versa's common stock, respectively. 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. The fair value of the warrants at October 31, 2011 and 2010 was \$0.2 million and was included within investment and loan to affiliate in our consolidated balance sheets. Changes in any of these assumptions would result in a change in the fair value of the warrants and impact our results of operations; however, the impact is not expected to be material. For example, a 10 percent decrease in the volatility assumption would have resulted in a charge to earnings of \$30 thousand, assuming all other assumptions remain the same.

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**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. and subsidiaries as of October 31, 2011 and 2010, and the related consolidated statements of operations, changes in (deficit) equity, and cash flows for each of the years in the three-year period ended October 31, 2011. We also have audited FuelCell Energy, Inc.'s internal control over financial reporting as of October 31, 2011, 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. and subsidiaries as of October 31, 2011 and 2010, and the results of their operations and their cash flows for each of the years in the three-year period ended October 31, 2011, 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, 2011, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

/s/ KPMG LLP

Hartford, Connecticut

January 17, 2012



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

	<b>October 31, 2011</b>	<b>October 31, 2010</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 51,415	\$ 20,467
Investments U.S. treasury securities	12,016	25,019
Accounts receivable, net of allowance for doubtful accounts of \$555 and \$393, respectively	21,950	18,066
Inventories, net	40,101	33,404
Other current assets	7,466	5,253
Total current assets	132,948	102,209
Property, plant and equipment, net	23,925	26,679
Investments U.S. treasury securities		9,071
Investment in and loans to affiliate	10,466	9,837
Other assets, net	16,291	2,733
Total assets	\$ 183,630	\$ 150,529
<b>LIABILITIES AND (DEFICIT) EQUITY</b>		
Current liabilities:		
Current portion of long-term debt	\$ 5,056	\$ 976
Accounts payable	14,143	10,267
Accounts payable due to affiliate	104	575
Accrued liabilities	26,894	16,721
Deferred revenue	64,114	25,499
Preferred stock obligation of subsidiary	3,854	
Total current liabilities	114,165	54,038
Long-term deferred revenue	7,000	8,042
Long-term preferred stock obligation of subsidiary	12,878	
Long-term debt and other liabilities	4,105	4,056
Total liabilities	138,148	66,136
Redeemable preferred stock of subsidiary		16,849
Redeemable preferred stock (liquidation preference of \$64,020 at October 31, 2011 and October 31, 2010)	59,857	59,857
Total (Deficit) Equity:		
Shareholders' (deficit) equity		
Common stock (\$.0001 par value; 225,000,000 shares authorized; 138,400,497 and 112,965,725 shares issued and outstanding at October 31, 2011 and October 31,	13	11

2010, respectively)		
Additional paid-in capital	687,857	663,951
Accumulated deficit	(701,336)	(655,623)
Accumulated other comprehensive income	15	11
Treasury stock, Common, at cost (5,679 shares at October 31, 2011 and October 31, 2010)	(53)	(53)
Deferred compensation	53	53
Total shareholders' (deficit) equity	(13,451)	8,350
Noncontrolling interest in subsidiaries	(924)	(663)
Total (deficit) equity	(14,375)	7,687
Total liabilities and (deficit) equity	\$ 183,630	\$ 150,529

See accompanying notes to consolidated financial statements.



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**FUELCELL ENERGY, INC.**  
**Consolidated Statements of Operations**  
**For the Years Ended October 31, 2011, 2010, and 2009**  
**(Amounts in thousands, except share and per share amounts)**

	<b>Years Ended October 31,</b>		
	<b>2011</b>	<b>2010</b>	<b>2009</b>
Revenues:			
Product sales and revenues	\$ 115,104	\$ 59,226	\$ 73,804
Research and development contracts	7,466	10,551	14,212
Total revenues	122,570	69,777	88,016
Costs of revenues:			
Cost of product sales and revenues	127,350	78,060	107,033
Cost of research and development contracts	7,830	10,370	10,994
Total cost of revenues	135,180	88,430	118,027
Gross loss	(12,610)	(18,653)	(30,011)
Operating expenses:			
Administrative and selling expenses	16,299	17,150	17,194
Research and development expenses	16,768	18,562	19,160
Total operating expenses	33,067	35,712	36,354
Loss from operations	(45,677)	(54,365)	(66,365)
Interest expense	(2,578)	(127)	(265)
Income (loss) from equity investments	58	(730)	(812)
Interest and other income, net	2,861	1,354	860
Loss before redeemable preferred stock of subsidiary	(45,336)	(53,868)	(66,582)
Accretion of redeemable preferred stock of subsidiary	(525)	(2,367)	(2,092)
Loss before provision for income taxes	(45,861)	(56,235)	(68,674)
Provision for income taxes	(113)	(91)	
Net loss	(45,974)	(56,326)	(68,674)
Net loss attributable to noncontrolling interest	261	663	
Net loss attributable to FuelCell Energy, Inc.	(45,713) (8,987)	(55,663)	(68,674)

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Adjustment for modification of redeemable preferred stock of subsidiary

Preferred stock dividends	(3,200)	(3,201)	(3,208)
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Net loss to common shareholders	\$ (57,900)	\$ (58,864)	\$ (71,882)
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Net loss to common shareholders per share

Basic	\$ (0.47)	\$ (0.63)	\$ (0.99)
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Diluted	\$ (0.47)	\$ (0.63)	\$ (0.99)
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Weighted average shares outstanding

Basic	124,498,073	93,925,863	72,392,928
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Diluted	124,498,073	93,925,863	72,392,928
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See accompanying notes to consolidated financial statements.

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**FUELCELL ENERGY, INC.**  
**Consolidated Statements of Changes in (Deficit) Equity**  
**For the Years Ended October 31, 2011, 2010, and 2009**  
(Amounts in thousands, except share and per share amounts)

	Common Stock		Additional		Accumulated Other Comprehensive		Noncontrolling Interest in Subsidiaries		Total
	Shares	Amount	Paid-in Capital	Accumulated Deficit	Income (Loss)	Treasury Stock	Deferred Compensation		Equity
<b>Balance, October 31, 2008</b>	68,782,446	\$ 7	\$ 578,337	\$ (531,286)	\$	\$ (90)	\$ 90	\$	\$ 47,058
Sale of common stock	14,450,118	1	50,193						50,194
Share based compensation			4,815						4,815
Stock issued under benefit plans	1,151,875		1,307						1,307
Preferred dividends Series B			(3,208)						(3,208)
Change in fair value of warrants			(148)						(148)
Deferred compensation	3,302					37	(37)		
Effect of foreign currency translation					(2)				(2)
Net loss attributable to FuelCell Energy, Inc.				(68,674)					(68,674)
<b>Balance, October 31, 2009</b>	84,387,741	\$ 8	\$ 631,296	\$ (599,960)	\$ (2)	\$ (53)	\$ 53	\$	\$ 31,342
Sale of common stock	27,600,000	3	32,077						32,080
Share based compensation			2,965						2,965
Conversion of Series B preferred stock to common stock, net of original issuance costs	8,510		93						93
Stock issued under benefit plans	969,474		721						721
Preferred dividends Series B			(3,201)						(3,201)
Noncontrolling interest in								(663)	(663)

[illegible]

See accompanying notes to consolidated financial statements.

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**FUELCELL ENERGY, INC.**  
**Consolidated Statements of Cash Flows**  
**For the Years Ended October 31, 2011, 2010 and 2009**  
**(Amounts in thousands, except share and per share amounts)**

	<b>Years Ended October 31,</b>		
	<b>2011</b>	<b>2010</b>	<b>2009</b>
<b>Cash flows from operating activities:</b>			
Net loss	\$ (45,974)	\$ (56,326)	\$ (68,674)
Adjustments to reconcile net loss to net cash used in operating activities:			
Share-based compensation	2,577	2,965	4,815
(Income) loss in equity investments	(58)	730	812
Accretion of redeemable preferred stock of subsidiary	525	2,367	2,092
Interest receivable on loan to affiliate	(185)	(155)	(141)
Asset impairment		765	
Loss on derivatives	137	95	330
Depreciation	6,431	7,438	8,591
Amortization of bond premium and interest expense	2,490	91	836
Provision (recovery) for doubtful accounts	162	374	(32)
(Increase) decrease in operating assets:			
Accounts receivable	(4,046)	4,480	(6,792)
Inventories	(6,697)	(7,971)	(910)
Other assets	(15,586)	(785)	2,402
Increase (decrease) in operating liabilities:			
Accounts payable	3,405	774	(7,050)
Accrued liabilities	10,761	3,762	3,786
Deferred revenue	37,573	6,404	(5,268)
<b>Net cash used in operating activities</b>	<b>(8,485)</b>	<b>(34,992)</b>	<b>(65,203)</b>
<b>Cash flows from investing activities:</b>			
Capital expenditures	(3,350)	(2,481)	(2,588)
Convertible loan to affiliate	(600)	(600)	(600)
Treasury notes matured	55,000	32,500	41,000
Treasury notes purchased	(33,019)	(59,677)	
<b>Net cash provided by (used in) investing activities</b>	<b>18,031</b>	<b>(30,258)</b>	<b>37,812</b>
<b>Cash flows from financing activities:</b>			
Repayment of debt	(306)	(377)	(237)
Proceeds from debt	4,000		436
Net proceeds from sale of common stock, net of registration fees	32,930	32,104	50,332
Payment of preferred dividends and return of capital	(15,226)	(3,695)	(3,631)
Common stock issued for stock plans and related expenses		(151)	273
<b>Net cash provided by financing activities</b>	<b>21,398</b>	<b>27,881</b>	<b>47,173</b>
Effects on cash from changes in foreign currency rates	4	13	(2)

<b>Net increase (decrease) in cash and cash equivalents</b>	<b>30,948</b>	<b>(37,356)</b>	<b>19,780</b>
Cash and cash equivalents-beginning of year	20,467	57,823	38,043
<b>Cash and cash equivalents-end of year</b>	<b>\$ 51,415</b>	<b>\$ 20,467</b>	<b>\$ 57,823</b>

See accompanying notes to the consolidated financial statements.

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**Note 1. Nature of Business and Significant Accounting Policies**

***Nature of Business***

FuelCell Energy, Inc. and subsidiaries (the Company, we, us, our) are engaged in the development and manufacturing of high temperature fuel cells for clean electric power generation. Our Direct FuelCell power plants produce reliable, secure and environmentally friendly 24/7 base load electricity for commercial, industrial, government and utility customers. We have commercialized our stationary fuel cells and are beginning the development of planar solid oxide fuel cell and other fuel cell technology. We expect to incur losses until such time as we can attain higher sales volumes.

The consolidated financial statements include our accounts and those of our wholly-owned subsidiaries, including FuelCell Energy, Ltd. (FCE Ltd.), our Canadian subsidiary; Bridgeport Fuel Cell Park, LLC (BFCP), Waterbury Renewable Energy (WRE), DFC-ERG Milford, LLC and DFC-ERG Connecticut, LLC, which were formed for the purpose of developing projects within Connecticut; FCE Korea Ltd., which was formed to facilitate our business operations in South Korea; and FuelCell Energy Solutions GmbH (FCES GmbH) to facilitate business development in Europe. Alliance Monterrey, LLC; Alliance Star Energy, LLC; and Alliance TST Energy, LLC, (collectively, the

Alliance Entities) are joint ventures with Alliance Power, Inc. (Alliance) established to construct fuel cell power plants and sell power under power purchase agreements (PPA). We have an 80 percent interest in each entity and accordingly, the financial results of the Alliance Entities are consolidated with our financial results. All intercompany accounts and transactions have been eliminated.

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

***Significant Accounting Policies***

***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 \$8.4 million of our cash and cash equivalents as collateral against letters of credit, banking requirements and customer contracts. At October 31, 2011 and 2010, we had outstanding letters of credit of \$7.1 million and \$7.3 million, respectively.

***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 carried at amortized cost, which is par value, plus or minus unamortized premium or discount. We classify notes with remaining maturities of one year or less as current assets and notes with remaining maturities greater than one year as non-current assets.

***Inventories and Advance Payments to Vendors***

Inventories consist principally of raw materials and work-in-process. In certain circumstances, we will make advance payments to vendors for future inventory deliveries. These advance payments are recorded as other current assets on the consolidated balance sheets.

Inventory is reviewed to determine if reserves are required for obsolescence (excess, obsolete, and slow-moving inventory). This review includes analyzing inventory levels of individual parts considering the current design of our products and production requirements as well as the expected inventory requirements for maintenance on installed power plants.

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### *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.

### *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 an asset group may not be recoverable. If events or changes in circumstances indicate that the carrying amount of the asset group may not be recoverable, we compare the carrying amount of an asset group to future undiscounted net cash flows, excluding interest costs, expected to be generated by the asset group 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 asset group exceeds the fair value of the asset group. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less costs to sell.

### *Revenue Recognition*

We earn revenue from (i) the sale and installation of fuel cell power plants and modules (ii) sale of component part kits and spare parts to customers, (iii) site engineering and construction services (iv) providing services under long-term service agreements ( LTSA ), (v) the sale of electricity under power purchase agreements ( PPA ) as well as incentive revenue from the sale of electricity under PPA s, and (vi) customer-sponsored research and development projects. Our revenue is primarily generated from customers located throughout the U.S. and Asia and from agencies of the U.S. government. Revenue from customer-sponsored research and development projects is recorded as research and development contracts revenue and all other revenues are recorded as product sales and revenues in the consolidated statements of operations.

For customer contracts for complete DFC Power Plants which the Company has adequate cost history and estimating experience and that management believes it can reasonably estimate total contract costs, revenue is recognized under the percentage of completion method of accounting. The use of percentage of completion accounting requires significant judgment relative to estimating total contract costs, including assumptions relative to the length of time to complete the contract, the nature and complexity of the work to be performed, anticipated increases in wages and prices for subcontractor services and materials, and the availability of subcontractor services and materials. Our estimates are based upon the professional knowledge and experience of our engineers, program managers and other personnel, who review each long-term contract on a quarterly basis to assess the contract s schedule, performance, technical matters and estimated cost at completion. Changes in estimates are applied retrospectively and when adjustments in estimated contract costs are identified, such revisions may result in current period adjustments to earnings applicable to performance in prior periods. Revenues are recognized based on the percentage of the contract value that incurred costs to date bear to estimated total contract costs, after giving effect to estimates of costs to complete based on most recent information. For customer contracts for new or significantly customized products, where management does not believe it has the ability to reasonably estimate total contract costs, revenue is recognized using the completed contract method and therefore all revenue and costs for the contract are deferred and not recognized until installation and acceptance of the power plant is complete. For all types of contracts, we recognize anticipated contract losses as soon as they become known and estimable. We have recorded an estimated contract loss reserve of \$0.1 million and \$0.6 million as of October 31, 2011 and October 31, 2010, respectively. Actual results could vary from initial estimates and reserve estimates will be updated as conditions change.



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Revenue from component part kits and spare parts sales is recognized upon shipment and title transfer under the terms of the customer contract.

Revenue from LTSA contracts for power plants with our 5-year stack design is earned ratably over the term of the contract by performing routine monitoring and maintenance and by meeting a certain level of power output. For our legacy LTSA contracts on power plants with our older 3-year stack design, a portion of the contract value related to the stack replacement has been deferred. Upon stack replacement, revenue is recognized ratably over the remaining contract term. Revenue related to routine monitoring and maintenance under legacy contracts is recognized ratably over the full term of the contract.

Revenue from the sale of electricity under PPA's is recognized as electricity is provided to the customer. Incentive revenue is recognized ratably over the term of the PPA. Site engineering and construction services revenue is recognized on percentage of completion as costs are incurred.

Revenue from research and development contracts is recognized proportionally as costs are incurred and compared to the estimated total research and development costs for each contract. Revenue 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, and on certain contracts we are reimbursed only a portion of the costs incurred. 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.

During fiscal 2011, the Company entered into a sales contract and supplemental agreement with one of its customers in which revenue is being recognized based upon the current guidance for multiple deliverable revenue arrangements. The guidance for an arrangement with multiple-deliverables states that the delivered items will be considered a separate unit of accounting if the following criteria are met:

The delivered item or items have value to the customer on a standalone basis.

If the arrangement includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item or items is considered probable and substantially in the control of the vendor.

The components of the contract were evaluated and it was determined that each have standalone value to the customer. A selling price hierarchy is established for determining the selling price of the multiple deliverables. The selling price used for each deliverable will be based on vendor-specific objective evidence (VSOE) if available, third-party evidence (TPE) if VSOE is not available, or estimated selling price (ESP) if neither VSOE nor TPE is available. The Company evaluated the elements of the contract with the customer using this hierarchy and has determined that estimated selling prices would be utilized for each element. These estimated selling prices were principally based on the prices charged when these elements were sold separately on a limited basis in the past.

### *Warranty and Service Expense Recognition*

We warranty our products for a specific period of time against manufacturing or performance defects. Our warranty is limited to a term generally 15 months after shipment or 12 months after installation of our products. We reserve for estimated future warranty costs based on historical experience. We also provide for a specific reserve if there is a known issue requiring repair during the warranty period. Estimates used to record warranty reserves are updated as we gain further operating experience. As of October 31, 2011 and October 31, 2010, the warranty reserve, which is classified in accrued liabilities on the consolidated balance sheet totaled \$1.1 million and \$0.7 million, respectively.

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In addition to the standard product warranty, we have entered into LTSA contracts with certain customers to provide monitoring, maintenance and repair services for fuel cell power plants. Our standard and most prevalent service agreement term is five years. Under the terms of our LTSA, the power plant must meet a minimum operating output during the term. If minimum output falls below the contract requirement, we may be subject to performance penalties or may be required to repair or replace the customer's fuel cell stack. An estimate is not recorded for a potential performance guarantee liability until a performance issue has occurred on a particular power plant. At that point, the actual power plant's output is compared against the minimum output guarantee and a reserve is recorded. The review of power plant performance is updated for each reporting period to incorporate the most recent performance of the power plant and minimum output guarantee payments made to customers, if any. The Company has provided for a reserve for performance guarantees, which based on historical fleet performance totaled \$2.2 million and \$1.2 million as of October 31, 2011 and 2010, respectively.

The Company provides for reserves on all LTSA agreements when the estimated future stack replacement and service costs are estimated to exceed the remaining contract value. Reserve estimates for future costs on LTSA agreements are determined by a number of factors including the estimated life of the stack, used replacement stacks available, our limit of liability on service agreements and future operating plans for the power plant. Our reserve estimates are performed on a contract by contract basis and include cost assumptions based on what we anticipate the service requirements will be to fulfill obligations for each contract. As of October 31, 2011, our reserve on LTSA contracts totaled \$8.9 million compared to \$6.6 million as of October 31, 2010. The increase related to changes in estimates for future expected costs. Prior to February 1, 2010, we provided for a pricing reserve if the agreement was sold below our standard pricing. As a result of our experience with these contracts and production rates of stacks and related costing, effective February 1, 2010, contract losses have been estimated as described above. The result of this change in estimate was not material to the consolidated financial statements.

LTSA's for power plants that have our 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 we have limited operating experience with these products. Stack replacements for new agreements which include the five-year stack design are expected to only be required upon renewal of the service agreement by the customer.

At the end of our LTSA contracts, customers are expected to either renew the contract or we anticipate that the stack module or the entire power plant will be returned to the Company as the plant is no longer being monitored or having routine service performed. In situations where the customer agrees at the time of a restack to return the stack to the Company at the end of the LTSA term, the cost of the stack is recorded as a long-term asset and depreciated over its expected life. If the Company does not obtain rights to title from the customer, the cost of the stack is expensed at the time of restack. As of October 31, 2011, total stack value recorded as a long-term asset was \$15.1 million, net of \$2.4 million of accumulated depreciation.

*Deferred Revenue, Royalty Income and Customer Deposits*

In February 2007, we entered into a 10-year manufacturing and distribution agreement with POSCO Power (POSCO). Under the terms of this agreement, POSCO will manufacture balance of plant (BOP) in South Korea using its design, procurement and manufacturing expertise. Under the terms of the agreement, we will receive a 4.1 percent royalty on sales of BOP made by POSCO, subject to minimum royalties. Minimum annual royalties recorded under this agreement were \$0.6 million and \$0.3 million for the years ended October 31, 2011 and 2010, respectively.

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In October 2009, we entered into a 10-year Stack Technology Transfer and License Agreement (the "2009 License Agreement") with POSCO allowing it to produce fuel cell stack modules from cells and components provided by us. These fuel cell modules will be combined with BOP manufactured in South Korea to complete electricity-producing fuel cell power plants for sale in South Korea. The 2009 License Agreement provides for an ongoing royalty, initially set at 4.1 percent of the revenues generated from sales of fuel cell stack modules manufactured and sourced by POSCO.

In connection with the 2009 License Agreement, we received an upfront license fee of \$10.0 million. License fee income is recognized ratably over the term of the 2009 License Agreement. The Company recognized license fee income relating to the upfront license fee received during fiscal years ended October 31, 2011 and 2010 in the amount of \$1.0 million, respectively.

In addition, we receive payments from customers upon the acceptance of a purchase order and when contractual milestones are reached. These payments may be deferred based on the nature of the payment and status of the specific project. Deferred revenue is recognized as revenue in accordance with our revenue recognition policies summarized above.

### *Research and Development Costs*

We perform both customer-sponsored research and development projects based on contractual agreement with customers and company-sponsored research and development projects. Costs incurred for customer-sponsored projects include manufacturing and engineering labor, applicable overhead expenses, materials to build and test prototype units and other costs associated with customer-sponsored research and development contracts. These costs are recorded as cost of research and development contracts in the consolidated statements of operations.

Costs incurred for company-sponsored research and development projects consist primarily of labor, overhead, materials to build and test prototype units and consulting fees. These costs are recorded as research and development expenses in the consolidated statements of operations.

### *Share-Based Compensation*

We account for restricted stock awards (RSAs) based on the closing market price of the Company's common stock on the date of grant. We account for stock options awarded to employees and non-employee directors under the fair value method of accounting using the Black-Scholes valuation model to estimate fair value at the grant date. The model requires us to make estimates and assumptions regarding the expected life of the option, the risk-free interest rate, the expected volatility of our common stock price and the expected dividend yield. The fair value of equity awards is amortized to expense over the vesting period, generally four years. Refer to Note 14 for additional information.

### *Income Taxes*

Income taxes are accounted for under the liability method. Deferred tax assets and liabilities are determined based on net operating loss (NOL) carryforwards, research and development credit carryforwards, and differences between financial reporting and income tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates and laws expected to be in effect when the differences are expected to reverse. 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.

The company's financial statements reflect expected future tax consequences of 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) presuming the taxing authorities' full knowledge of the position and all relevant facts.

**Table of Contents***Concentrations*

We contract with a concentrated number of customers for the sale of our products and for research and development contracts. For the fiscal years ended October 31, 2011, 2010 and 2009, our top four customers accounted for 71 percent, 68 percent and 64 percent, respectively, of our total annual consolidated revenue.

The percent of consolidated revenues from each customer for the years ended October 31, 2011, 2010 and 2009, respectively are presented below.

	2011	2010	2009
POSCO	44%	58%	64%
BioFuels Fuel Cells, LLC	12%		
UTS BioEnergy, LLC	10%		
Pacific Gas and Electric Company	5%	10%	
Total	71%	68%	64%

POSCO is a related party and owns approximately 8 percent of the outstanding common shares of the Company. 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 effect on our business, financial condition and results of operations.

*Derivatives*

We do not use derivatives for speculative purposes and through fiscal year end 2011, have not used derivatives for trading purposes. Derivative instruments consist of our warrants to purchase additional shares of common stock of Versa Power Systems, Inc. ( Versa ) and embedded derivatives in our Series 1 Preferred Shares. We account for these derivatives using the fair-value method with changes in the underlying fair value recorded to earnings. Refer to Notes 2 and 12 for additional information.

*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, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Estimates are used in accounting for, among other things, revenue recognition, excess, slow-moving and obsolete inventories, product warranty costs, LTSA reserves, allowance for uncollectible receivables, depreciation and amortization, impairment of assets, 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.

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### ***Comprehensive Income (Loss)***

Comprehensive loss of \$45.7 million, \$55.7 million and \$68.7 million includes net loss attributable to FuelCell Energy, Inc. of \$45.7 million, \$55.7 million and \$68.7 million (as reported before preferred dividends and adjustment for modification of redeemable preferred stock) and foreign currency translation adjustments of \$4.0 thousand, \$13.0 thousand and \$2.0 thousand for the years ended October 31, 2011, 2010 and 2009 respectively, which are included as a component of stockholders' (deficit) equity in the consolidated balance sheets.

### ***Foreign Currency Translation***

The translation of FuelCell Korea Ltd.'s financial statements results in translation gains or losses, which are recorded in accumulated other comprehensive income (loss) within stockholders' (deficit) equity.

Our Canadian subsidiary, FCE Ltd., is financially and operationally integrated and therefore the temporal method of translation of foreign currencies is followed. The functional currency is U.S. dollars. We are subject to foreign currency transaction gains and losses as certain invoices are denominated in Canadian dollars. We recognized a gain of \$1.0 million, a loss of \$0.01 million and a loss of \$0.2 million for the years ended October 31, 2011, 2010 and 2009, respectively. These amounts have been classified as interest and other income, net in the consolidated statements of operations.

### ***Subsequent Events***

We have evaluated subsequent events and are not aware of any significant events that occurred subsequent to the balance sheet date but prior to the filing of this Form 10-K with the SEC that would have a material impact on our consolidated financial statements.

### ***Recently Adopted Accounting Guidance***

In April 2010, the FASB provided guidance on defining a milestone and determining when it may be appropriate to apply the milestone method of revenue recognition for research or development transactions. Research or development arrangements frequently include payment provisions whereby a portion or all of the consideration is contingent upon the achievement of milestone events. An entity may only recognize consideration that is contingent upon the achievement of a milestone in its entirety in the period the milestone is achieved only if the milestone meets certain criteria. We adopted this guidance effective November 1, 2010 and it did not impact our financial statements.

In December 2009, the FASB issued revised guidance related to the consolidation of variable interest entities (VIE). The revised guidance requires reporting entities to evaluate former qualified special purpose entities for consolidation, changes the approach to determining a VIE's primary beneficiary from a quantitative assessment to a qualitative assessment designed to identify a controlling financial interest, and increases the frequency of required reassessments to determine whether a company is the primary beneficiary of a VIE. It also clarifies, but does not significantly change, the characteristics that identify a VIE. We adopted this guidance effective November 1, 2010 and it did not impact our financial statements.

In October 2009, the FASB issued guidance updating accounting standards for revenue recognition for multiple-deliverable arrangements. The stated objective of the update was to address the accounting for multiple-deliverable arrangements to enable vendors to account for products or services separately rather than as a combined unit. The guidance provides amended methodologies for separating consideration in multiple-deliverable arrangements and expands disclosure requirements. We adopted this guidance for revenue arrangements entered into or materially modified after November 1, 2010 and it did not have a material impact on our financial statements or disclosures to date.

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In June 2009, the FASB issued accounting guidance which requires a company to perform ongoing reassessment of whether it is the primary beneficiary of a variable interest entity ( VIE ). Specifically, the guidance modifies how a company determines when an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. The guidance clarifies that the determination of whether a company is required to consolidate a VIE is based on, among other things, an entity's purpose and design and a company's ability to direct the activities of the VIE that most significantly impact the VIE's economic performance. The guidance requires an ongoing reassessment of whether a company is the primary beneficiary of a VIE and enhanced disclosures of the company's involvement in VIEs and any significant changes in risk exposure due to that involvement. We adopted this guidance effective November 1, 2010 and it did not have an impact on our financial statements.

***Recent Accounting Guidance Not Yet Effective***

In January 2010, the FASB issued guidance that requires new disclosures for fair value measurements and provides clarification for existing disclosure requirements. This amended guidance requires disclosures about inputs and valuation techniques used to measure fair value as well as disclosures about significant transfers in and out of Levels 1 and Levels 2 fair value measurements and disclosures about the purchase, sale, issuance and settlement activity of Level 3 fair value measurements. This guidance is effective for interim and annual reporting periods beginning after December 15, 2009, except for disclosures about the purchase, sale, issuance and settlement activity of Level 3 fair value measurements, which is effective for fiscal years beginning after December 15, 2010. The Company was not impacted by the disclosures effective for interim periods beginning after December 15, 2009 and we do not expect the remaining disclosures required after December 15, 2010 upon adoption of this guidance will have a material impact on our financial statements or disclosures.

In May 2011, the FASB issued new guidance that clarifies and changes some fair value measurement principles and disclosure requirements. Among them is the clarification that the concepts of highest and best use and valuation premise in a fair value measurement should only be applied when measuring the fair value of nonfinancial assets. Additionally, the new guidance requires quantitative information about unobservable inputs, and disclosure of the valuation processes used and narrative descriptions with regard to fair value measurements within the Level 3 categorization of the fair value hierarchy. The new guidance is effective for interim and annual reporting periods beginning after December 15, 2011, with early adoption prohibited. The adoption of this new guidance is not expected to have a material impact on our financial statements or disclosures.

In June 2011, the FASB issued guidance that eliminates the option to present items of other comprehensive income ( OCI ) as part of the statement of changes in stockholders' equity, and instead requires either OCI presentation and net income in a single continuous statement to the statement of operations, or as a separate statement of comprehensive income. This new guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011, with early adoption permitted. The Company is required to adopt this update in the first quarter of fiscal year 2013. The adoption of this accounting guidance is not expected to have a material impact on our financial statements.

**Note 2. Equity investments**

Versa is one of our sub-contractors under the Department of Energy's ( DOE ) large-scale hybrid project to develop a coal-based, multi-megawatt solid oxide fuel cell ( SOFC ) based hybrid system. Versa is a private company founded in 2001 that is developing advanced SOFC systems for various stationary and mobile applications. We have a 39 percent ownership interest and account for Versa under the equity method of accounting. We recognize our share of the income or losses as income/(loss) from equity investments on the consolidated statements of operations.

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In May 2011, we loaned Versa \$0.6 million in the form of a convertible note (the 2011 Convertible Note). We have also loaned Versa \$2.0 million in the form of a convertible note in 2007 (the 2007 Convertible Note) and \$0.6 million in each year 2009 and 2010 in the form of convertible notes (the 2009 Convertible Note and the 2010 Convertible Note, respectively). The 2011 Convertible Note matures in May 2021, the 2010 Convertible Note matures April 2020, the 2009 Convertible Note matures November 2018 and the 2007 Convertible Note matures May 2017, unless certain prepayment events occur. In conjunction with the Convertible Notes, we received warrants for the right to purchase 4,830 shares of Versa common stock at a weighted average exercise price of \$157 per share. Our ownership percentage would increase to 47 percent if the Convertible Notes and warrants are converted into common stock.

We have determined that the above warrants represent derivatives subject to fair value accounting. The fair value is determined 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 the warrants is included within investment and loan to affiliate on the consolidated balance sheets and changes in the fair value of the warrants are included in interest and other income on the consolidated statements of operations. The fair value of the warrants as of October 31, 2011 and 2010 was \$0.2 million and \$0.2 million, respectively. The change in the fair value of the warrants was not material to the consolidated financial statements for the years ended October 31, 2011, 2010 and 2009. The carrying value of our investment in and loans to Versa was \$10.5 million and \$9.8 million as of October 31, 2011 and 2010, respectively.

**Note 3. Investments**

The following table summarizes the amortized cost basis and fair value of our investments in U.S. treasury securities at October 31, 2011 and 2010:

	<b>Amortized cost</b>	<b>Gross unrealized gains</b>	<b>Gross unrealized (losses)</b>	<b>Fair value</b>
<b><i>U.S. government obligations</i></b>				
At October 31, 2011	\$ 12,016	\$ 14	\$	\$ 12,030
At October 31, 2010	\$ 34,090	\$ 74	\$	\$ 34,164
			<b>2011</b>	<b>2010</b>
<b><i>Reported as:</i></b>				
Short-term investments			\$ 12,016	\$ 25,019
Long-term investments				9,071
			\$ 12,016	\$ 34,090

As of October 31, 2011, investment securities had maturity dates ranging from November 15, 2011 to March 15, 2012, and estimated yields ranging from 1.13 percent to 1.75 percent, with a weighted average yield of 1.32 percent.

**Table of Contents****Note 4. Inventories**

The components of inventory at October 31, 2011 and October 31, 2010 consisted of the following:

	2011	2010
Raw materials	\$ 18,303	\$ 13,568
Work-in-process	21,798	19,836
Net inventory	\$ 40,101	\$ 33,404

Raw materials consist mainly of various nickel powders and steels, various other components used in producing cell stacks and purchased components for balance of plant. Work-in-process inventory is comprised of material, labor, and overhead costs incurred 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.

Raw materials and work in process are net of valuation reserves of approximately \$2.6 million and \$5.4 million at October 31, 2011 and 2010, respectively.

**Note 5. Accounts Receivable**

Accounts receivable at October 31, 2011 and 2010 consisted of the following:

	2011	2010
U.S. Government:		
Amount billed	\$ 52	\$ 223
Unbilled recoverable costs	1,012	605
	1,064	828
Commercial customers:		
Amount billed	\$ 10,330	\$ 9,718
Unbilled recoverable costs	10,556	7,520
	20,886	17,238
	\$ 21,950	\$ 18,066

We bill customers for power plant sales based on reaching certain milestones. We bill the U.S. government for research and development contracts based on actual costs incurred, typically in the month subsequent to incurring costs. Unbilled recoverable costs relate to revenue recognized on customer contracts that have not been billed. The amounts above are presented net of an allowance for doubtful accounts of \$0.6 million and \$0.4 thousand at October 31, 2011 and 2010, respectively.



**Table of Contents****Note 6. Property, Plant and Equipment**

Property, plant and equipment at October 31, 2011 and 2010 consisted of the following:

	<b>2011</b>	<b>2010</b>	<b>Estimated Useful Life</b>
Land	\$ 524	\$ 524	
Building and improvements	7,579	7,582	10-26 years
Machinery, equipment and software	66,552	65,729	3-8 years
Furniture and fixtures	2,755	2,695	10 years
Power plants for use under PPAs	13,538	13,538	3-10 years
Construction in progress (1)	5,762	3,114	
	96,710	93,182	
Less: Accumulated depreciation	(72,785)	(66,503)	
Property, plant and equipment, net	\$ 23,925	\$ 26,679	

(1) Included in construction in progress are costs of \$1.0 million and \$0.9 million at October 31, 2011 and 2010, respectively, to build power plants that will service power purchase agreement contracts.

Depreciation expense was \$6.4 million, \$7.4 million and \$8.6 million for the years ended October 31, 2011, 2010 and 2009, respectively.

**Note 7. Other Current Assets**

Other current assets at October 31, 2011 and October 31, 2010 consisted of the following:

	<b>2011</b>	<b>2010</b>
Advance payments to vendors <sup>(1)</sup>	\$ 4,378	\$ 4,033
Interest receivable <sup>(2)</sup>	48	55
Note receivable <sup>(3)</sup>	804	
Prepaid expenses and other <sup>(4)</sup>	2,236	1,165
Total	\$ 7,466	\$ 5,253

(1) Advance payments to vendors relate to inventory purchases. The October 31, 2010 amount has been reduced by a lower of cost or market adjustment \$0.1 million. There was no lower of cost or market adjustment at October 31, 2011

(2) Interest receivable relates to amounts due on investments in U.S. Treasury securities.

(3) Current portion of long-term note receivable.

(4) Primarily relates to other accounts receivable related to POSCO royalties and other prepaid vendor expenses including insurance, rent and lease payments.



**Table of Contents****Note 8. Other Assets, net**

Other assets, net at October 31, 2011 and October 31, 2010 consisted of the following:

	2011	2010
Long-term stack residual value <sup>(1)</sup>	\$ 15,092	\$ 2,050
Other <sup>(2)</sup>	1,199	683
Other Assets, net	\$ 16,291	\$ 2,733

(1) Relates to stack replacements performed under the Company's long-term service agreements. The cost of the stack is recorded as a long term asset and is depreciated over its expected life. See note 1 for additional information. Additions during the year ended October 31, 2011 were \$15.4 million. Accumulated depreciation was \$2.4 million and \$0.1 million for the years ended October 31, 2011 and 2010 respectively.

(2) Includes security deposits and note receivable.

**Note 9. Accrued Liabilities**

Accrued liabilities at October 31, 2011 and 2010 consisted of the following:

	2011	2010
Accrued payroll and employee benefits <sup>(1)</sup>	\$ 4,672	\$ 3,430
Accrued contract and operating costs <sup>(2)</sup>	88	2,126
Reserve for product warranty costs <sup>(3)</sup>	1,134	696
Reserve for long-term service agreement costs <sup>(4)</sup>	11,096	7,742
Reserve for B1200 repair and upgrade program <sup>(5)</sup>	7,949	
Accrued taxes, legal, professional and other <sup>(6)</sup>	1,955	2,727
	\$ 26,894	\$ 16,721

(1) Balance relates to amounts owed to employees for compensation and benefits as of the end of the period.

(2) Balance includes estimated losses accrued on product sales contracts and amounts estimated as potentially owed to customers related to contract performance.

(3) Activity in the reserve for product warranty costs during the year ended October 31, 2011 included additions for estimates of potential future warranty obligations of \$0.9 million on contracts in the warranty period and reserve reductions related to actual warranty spend and reversals to income of \$0.5 million as contracts progress through the warranty period or are beyond the warranty period.

(4) The Company provides for reserves on all LTSA agreements when the estimated future stack replacement and service costs are estimated to exceed the remaining unrecognized contract value. Our reserve estimates are performed on a contract by contract basis and include cost assumptions based on what we anticipate the service requirements will be to fulfill obligations for each contract. As of October 31, 2011, our reserve on LTSA contracts totaled \$8.9 million compared to \$6.6 million as of October 31, 2010. If minimum output falls below the contract requirement, we may be subject to performance penalties or may be required to repair or replace the

customer's fuel cell stack. An estimate is not recorded for a potential performance guarantee liability until a performance issue has occurred on a particular power plant. At that point, the actual power plant's output is compared against the minimum output guarantee and a reserve is recorded. The Company has provided for a reserve for performance guarantees, which based on historical fleet performance totaled \$2.2 million and \$1.2 million as of October 31, 2011 and 2010, respectively.

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- (5) During the second quarter of fiscal 2011, the Company incurred an obligation to repair and upgrade a select group of 1.2 megawatt (MW) fuel cell modules produced between 2007 and early 2009. The repair and upgrade obligation was based on events that occurred and knowledge obtained concerning the performance of this select group of modules during the second fiscal quarter of 2011 however, the formal agreement to begin the repair and upgrade program was not finalized until May 2011. The program commenced in the third quarter of 2011 and is expected to conclude by mid-2012. The Company recorded a charge of approximately \$8.8 million during the quarter ended April 30, 2011 recorded as a cost of product sales and revenues on the consolidated statements of operations. The charge consisted of the costs associated with the replacement of modules of \$9.5 million and the costs associated with the repair of other modules of \$4.1 million, partially off-set by the estimated fair value at the end of the respective LTSA contract terms for upgraded assets being deployed in the program of approximately \$4.8 million, which will be returned to the Company at the expiration of the respective LTSA agreements if the customer does not renew the LTSA agreement through at least the remaining useful life of the upgraded assets. The reserve reflected on the consolidated balance sheet as of April 30, 2011 was approximately \$11.3 million as certain costs were previously incorporated in the Company's LTSA reserve. For the remainder of fiscal 2011 since April 30, 2011, the Company incurred actual repair and upgrade costs of approximately \$2.9 million and reduced its estimate for future repair costs under this program resulting in a benefit to cost of product sales and revenues of \$0.5 million.
- (6) Balance includes accrued sales, use and payroll taxes as well as estimated legal, professional and other expense estimates as of the end of the period.

**Note 10. Debt and Leases**

At October 31, 2011 and 2010, debt consisted of the following:

	<b>2011</b>	<b>2010</b>
Revolving credit facility	\$ 4,000	\$
Connecticut Development Authority Note	3,653	3,831
Connecticut Clean Energy Fund Note	775	710
Capitalized lease obligations	248	134
 Total debt	 \$ 8,676	 \$ 4,675
 Less: Current portion of long-term debt	 (5,056)	 (976)
 Long-term debt	 \$ 3,620	 \$ 3,699

In January 2011, the Company entered into a \$5.0 million revolving credit facility with JPMorgan Chase Bank, N.A. and the Export-Import Bank of the United States. The credit facility is to be used for working capital to finance the manufacture and production and subsequent export sale of the Company's products or services. The agreement has a one year term with renewal provisions. The outstanding principal balance of the facility bears interest, at the option of the Company of either the one-month LIBOR plus 1.5 percent or the prime rate of JP Morgan Chase. The facility is secured by certain working capital assets and general intangibles as defined in the agreement, up to the amount of the outstanding facility balance. Aside from certain negative covenants limiting the Company's ability to merge or acquire another company, sell non-inventory assets, create liens against collateral or change the organizational structure or identity, the facility does not require compliance with any financial covenants. At October 31, 2011, the outstanding amount owed under this facility was \$4.0 million and is classified as current portion of long-term debt and other liabilities on the consolidated balance sheets.

In April 2008, we entered into a 10-year loan agreement with the Connecticut Development Authority to finance equipment purchases associated with manufacturing capacity expansion allowing for a maximum borrowing of \$4.0 million. The stated interest rate is 5 percent and the loan is collateralized by the assets procured under this loan as well as \$4.0 million of additional machinery and equipment. Interest only payments were required through November 2009. Principal and interest payments are due commencing in December 2009 through May 2018. The outstanding balance on the loan was \$3.7 million and \$3.8 for the years ended October 31, 2011 and 2010, respectively. For the year ended October 31, 2011 \$0.2 million was classified as current portion of long-term debt and \$3.5 million was classified as long-term debt. Interest paid during Fiscal 2011 amounted to approximately \$0.2 million.

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In April 2006, BFCF entered into a loan agreement with the Connecticut Clean Energy Fund for \$0.5 million, secured by assets of BFCF. 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 principal and 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 BFCF. None of these events has occurred and we have not made any payments or prepayments as of October 31, 2011. The outstanding balance on this loan was \$0.8 million, including \$0.2 million of accrued interest, as of October 31, 2011. This note is classified as currently payable as the timing of events that would result in repayment are not determinable.

We lease computer equipment under master lease agreements. Lease payment terms are generally thirty-six months from the date of acceptance for leased equipment.

Aggregate annual principal payments under our loan agreements, excluding payments relating to the revolving credit facility, and capital lease obligations for the years subsequent to October 31, 2011 are as follows:

2012	1,056
2013	289
2014	250
2015	216
2016	227
Thereafter	2,638
	\$ 4,676

**Note 11. Shareholders (Deficit) Equity*****Registered Direct Offering***

On January 13, 2011 we sold an aggregate of 10,160,428 units at a negotiated price of \$1.87 per unit, with each unit consisting of (i) one share of FuelCell Energy, Inc. common stock, par value \$0.0001 per share ( **Common Stock** ) and (ii) one warrant to purchase 1.0 share of Common Stock, in a registered direct offering for gross proceeds of \$19.0 million. The net proceeds from the sale of the units, after deducting the placement agent fees and other estimated offering expenses, was approximately \$17.8 million. We have used and intend to use the proceeds from this offering for product development, project financing, expansion of manufacturing capacity, and general corporate purposes. The warrants have an exercise price of \$2.29 per share and are exercisable beginning on the date that is six months and one day after the closing date and will expire twenty one months after issuance.

Additionally, FuelCell Energy exercised its right in the fourth quarter of fiscal 2011 to require the investor to purchase 10.0 million additional shares. The sale price for the additional shares was based on a fixed ten percent discount to a volume weighted average price ( **VWAP** ) measurement at the time FuelCell Energy exercised the option. The net proceeds from the sale of the shares, after deducting agent fees and other expenses, were approximately \$8.7 million. FuelCell Energy cannot require the investor to purchase more than \$20 million of additional shares.

***Common Stock***

During fiscal 2011, the Company sold 3,904,496 shares of the Company's common stock on the open market and raised approximately \$6.4 million, net of fees.

During the third quarter of fiscal 2010, the Company sold 27.6 million shares of our common stock at \$1.25 per share in a public offering that generated net cash proceeds of approximately \$32.1 million. The Company has and intends to use the net proceeds from this offering for product development, project financing, to expand manufacturing capacity and for general corporate purposes. The Company also issued 1.0 million shares under employee benefit plans.





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**Note 12. Redeemable Preferred Stock**

***Redeemable Series B Preferred Stock***

We have 250,000 shares of our 5 percent Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000) ( Series B Preferred Stock ) authorized for issuance. At October 31, 2011 and 2010, there were 64,020 shares of Series B Preferred Stock issued and outstanding, with a carrying value of \$59.9 million. 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. The following is a summary of certain provisions of our Series B Preferred Stock.

*Ranking* Shares of 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 accumulate and are cumulative from the date of original issuance. Accumulated dividends on the Series B Preferred Stock do not bear interest.

The dividend rate is subject to upward adjustment as set forth in the Certificate of Designation if we fail to pay, or to set apart funds to pay, any quarterly dividend. The dividend rate 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 Stock (or the underlying common shares) under the Registration Rights Agreement.

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

The dividend on the Series B Preferred Stock may be paid 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. Dividends of \$3.2 million were paid in cash in each of the years ended October 31, 2011, 2010 and 2009. There were no cumulative unpaid dividends at October 31, 2011 and 2010.

*Liquidation* The Series B Preferred Stock stockholders are entitled to receive, in the event that we are liquidated, dissolved or wound up, whether voluntary or involuntary, \$1,000 per share plus all accumulated and unpaid dividends to the date of that liquidation, dissolution, or winding up ( Liquidation Preference ). Until the holders of Series B Preferred Stock receive their Liquidation Preference in full, no payment will be made on any junior shares, including shares of our common stock. After the Liquidation Preference is paid in full, holders of the Series B Preferred Stock will not be entitled to receive any further distribution of our assets. At October 31, 2011 and 2010, the Series B Preferred Stock had a Liquidation Preference of \$64.0 million.



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*Conversion Rights* Each Series B Preferred Stock share 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. If converted, holders of Series B Preferred Stock do not receive a cash payment for all accumulated and unpaid dividends; rather, all accumulated and unpaid dividends are cancelled.

Beginning after November 20, 2009 we may, at our option, cause shares of 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 percent of the then prevailing conversion price (\$11.75 at October 31, 2011) for 20 trading days during any consecutive 30 trading day period, as described in the Certificate of Designation.

If holders of 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 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 is to prevent dilution of the interests of the holders of the Series B Preferred Stock from 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.

*Redemption* We do not have the option to redeem the shares of Series B Preferred Stock. However, holders of the Series B Preferred Stock can require us to redeem all or part of their shares at a redemption price equal to the Liquidation Preference of the shares to be redeemed in the case of a fundamental change. A fundamental change will be deemed to have occurred if any of the following occurs:

any person or group is or becomes the beneficial owner, directly or indirectly, of 50 percent 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;

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 of nomination for election was previously so approved) cease for any reason to constitute a majority of our directors then in office;

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



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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 percent 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 redeem their shares if:

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 percent of the conversion price of the shares of Series B Preferred Stock immediately before the fundamental change or announcement;

at least 90 percent of the consideration (excluding cash payments for fractional shares) and, in respect of dissenters' appraisal rights, if 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 fundamental change event in the fourth bullet above, the transaction is affected solely to change our jurisdiction of incorporation.

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 percent 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.

*Voting Rights* Holders of Series B Preferred Stock currently have no voting rights; however, holders may receive certain voting rights, as described in the Certificate of Designation, if (1) dividends on any shares of Series B Preferred Stock, or any other class or series of stock ranking on a parity with the Series B Preferred Stock with respect to the payment of dividends, shall be in arrears for dividend periods, whether or not consecutive, for six calendar quarters or (2) we fail to pay the redemption price, plus accrued and unpaid dividends, if any, on the redemption date for shares of Series B Preferred Stock following a fundamental change.

So long as any shares of Series B Preferred Stock remain outstanding, we will not, without the consent of the holders of at least two-thirds of the shares of 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 the 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 the 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 Series B Preferred Stock or the holders thereof without the affirmative vote of not less than two-thirds of the issued and outstanding Series B

Preferred Stock shares.

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### ***Series 1 Preferred Shares***

In connection with our acquisition of Global Thermoelectric Inc. ( Global ) in November 2003, we acquired the obligations of Global pursuant to its outstanding 1,000,000 Series 2 Preferred Shares ( Series 2 Preferred Shares ) which continued to be held by Enbridge, Inc. With the sale of Global in May of 2004, the Series 2 Preferred Shares were cancelled, and replaced with substantially equivalent Series 1 Preferred Shares ( Series 1 Preferred Shares ) issued by FCE FuelCell Energy Ltd. ( FCE Ltd ).

On March 31, 2011, the Company entered into an agreement with Enbridge, Inc. ( Enbridge ) to modify the Class A Cumulative Redeemable Exchangeable Preferred Shares agreement (the Series 1 preferred share agreement ) between FCE Ltd, a wholly-owned subsidiary of FuelCell Energy, and Enbridge, the sole holder of the Series 1 preferred shares. Consistent with the previous Series 1 preferred share agreement, FuelCell continues to guarantee the return of principal and dividend obligations of FCE Ltd. to the Series 1 preferred shareholders under the modified agreement.

Under the original Series 1 Preferred Shares provisions, FCE Ltd. had an accrued and unpaid dividend obligation of approximately Cdn. \$12.5 million representing the deferral of dividends plus additional dividends thereon. Payment was originally due to Enbridge as of December 31, 2010, but was subsequently extended based on mutual consent. Under the modified share provisions, the Company is required to make (i) equal quarterly return of capital cash payments to the holders of the Series 1 Preferred Shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011 and (ii) additional return of capital cash payments, as consideration for the one-year deferral, calculated at a 9.8 percent rate per annum on the unpaid Cdn. \$12.5 million obligation, which additional payments will also be made to the holders of the Series 1 Preferred Shares on the last day of each calendar quarter starting on March 31, 2011 and ending on December 31, 2011. Dividends accrue at a 1.25% quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends (inclusive of the Cdn\$12.5 million unpaid dividend balance as of the modification date) at a rate of 1.25% per quarter, compounded quarterly.

Under the original Series 1 Preferred Shares provisions, FCE Ltd. was to make annual dividend payments totaling Cdn. \$1,250,000. The modified terms of the Series 1 Preferred Shares adjust these payments to (i) annual dividend payments of Cdn\$500,000 and (ii) annual return of capital payments of Cdn. \$750,000. These payments commenced on March 31, 2011 and will end on December 31, 2020. Additional dividends accrue on cumulative unpaid dividends at a 1.25 percent quarterly rate, compounded quarterly, until payment thereof. On December 31, 2020 the amount of all accrued and unpaid dividends on the Series 1 Preferred Shares of Cdn\$21.1 million and the balance of the principal redemption price of Cdn\$4.4 million shall be paid to the holders of the Series 1 Preferred Shares. FCE Ltd. has the option of making dividend payments in the form of common stock or cash under the Series 1 Preferred Shares provisions.

On March 31, 2011, the modified instrument had a carrying value of Cdn. \$25.2 million. The Company assessed the accounting guidance related to the classification of the preferred shares after the modification on March 31, 2011 and concluded that the preferred shares should be classified as a mandatorily redeemable financial instrument, and presented as a liability on the consolidated balance sheet. Due to the reclassification of the instrument to a liability, the Company has accounted for this modification of the Series 1 Preferred shares as an extinguishment and therefore the difference between the fair value of the consideration transferred to the holders of the preferred stock and the carrying amount of the preferred stock on our balance sheet prior to the modification represents a return to the preferred stockholder and treated in a manner similar to the treatment of dividends paid on preferred stock. Accordingly, the difference between (1) the fair value of the Series 1 Preferred shares and (2) the carrying amount of the Series 1 Preferred shares on our balance sheet prior to the modification was subtracted from net loss to arrive at loss to common stockholders in the calculation of earnings per share.

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The previous model used to value the original Series I Preferred shares was modified to value the pre-modification contract, to reflect the new cash-flows discussed above. The notional amount of the instrument is accreted beginning in 2011 to correspond to the initial four quarterly returns of capital payments in 2011 and to the quarterly \$187,500 paid from 2011-2020 as return of capital. It is assumed that the Company will exercise the call option to force conversion in 2020. The conversion feature is modeled using a lattice approach. Call option strikes are adjusted for cumulative dividends and the conversion ratio is adjusted by the notional schedule. The stock is projected in the future assuming a log-normal distribution. The stock volatility, the interest rate curve, the foreign exchange rates and credit spreads are assumed to be deterministic. The cumulative dividend is modeled as a quarterly cash dividend component and a cumulative payment in 2020.

The revaluation of the Series 1 Preferred shares resulted in a reduction of additional paid in capital of \$9.0 million, which is also presented on the consolidated statements of operations as a charge to modification of redeemable preferred stock of subsidiary to arrive at net loss to common shareholders and is included in the calculation of earnings per share for net loss to common shareholders. The reason for the change in the value of the obligation was that the original obligation had been accounted for under purchase price accounting at the time of the Global Thermoelectric Inc. acquisition in November 2003. The valuation at that time included a market risk discount and used the exchange rate at the time of the acquisition. Under the new valuation, the future estimated cash flows were discounted using the current exchange rate.

The Company made its scheduled payments of Cdn. \$10.9 million during fiscal 2011 under the terms of the modified agreement, including the recording of interest expense of approximately Cdn. \$2.3 million. As of October 31, 2011, the carrying value of the Series 1 Preferred shares was Cdn.\$16.6 million (\$16.7 million USD) and is classified as preferred stock obligation of subsidiary on the consolidated balance sheets.

In addition to the above, the significant terms of the Series 1 Preferred Shares 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 FCE Ltd, but shall be entitled to receive notice of meetings of shareholders of FCE Ltd. called for the purpose of authorizing the dissolution or sale of its assets or a substantial part thereof.

*Dividends* Dividend payments can be made in cash or common stock of the Company, at the option of FCE Ltd., and if common stock is issued it may be unregistered. If FCE Ltd. elects to make such payments by issuing common stock of the Company, the number of common shares is determined by dividing the cash dividend obligation by 95 percent of the volume weighted average price in US dollars at which board lots of 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* The Series 1 Preferred Shares are redeemable by FCE Ltd. for Cdn.\$25 per share less any amounts paid as a return of capital in respect of such share plus all unpaid dividends and accrued interest. 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 FCE Ltd., the holders of Series 1 Preferred Shares will be entitled to receive Cdn.\$25 per share less any amounts paid as a return of capital in respect of such share plus all unpaid dividends and accrued interest. The Company has guaranteed any liquidation obligations of FCE Ltd.

*Exchange Rights* A holder of Series 1 Preferred Shares has the right to exchange such shares for fully paid and non-assessable common stock of the Company at the following exchange prices:

Cdn\$129.46 per share of common stock after July 31, 2010 until July 31, 2015;





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Cdn\$138.71 per share of common stock after July 31, 2015 until July 31, 2020; and at any time after July 31, 2020, at a price equal to 95 percent of the then current market price (in Cdn.\$) of the Company's common stock at the time of conversion.

The exchange rates set forth above shall be adjusted if the Company: (i) subdivides or consolidates the common stock; (ii) pays a stock dividend; (iii) issues rights, options or other convertible securities to the Company's common stockholders enabling them to acquire common stock at a price less than 95 percent of the then-current price; or (iv) fixes a record date to distribute to the Company's common stockholders shares of any other class of securities, indebtedness or assets.

### ***Derivative liability related to Series 1 Preferred Shares***

The conversion feature and variable dividend contained in the terms of the Series 1 Preferred Shares are not clearly and closely related to the characteristics of the Series 1 Preferred Shares. Accordingly, these features qualify as embedded derivative instruments and are required to be accounted for separately and recorded as derivative financial instruments at fair value.

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 Shares, it is assumed that we 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 percent 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 percent annual dividend payment stream, and the value of a 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 Series 1 Preferred Shares are assumed to be force converted.

The assumptions used in these valuation models 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 our common stock. The aggregate fair value of these derivatives included within long-term debt and other liabilities on the consolidated balance sheets as of October 31, 2011 and 2010 was \$0.6 million and \$0.5 million, respectively.

### **Note 13. Segment Information**

We are engaged in the development, design, production and sale of high temperature fuel cells for clean electric power generation. Critical to the success of our business is, among other things, our research and development efforts, both through customer-sponsored projects and company-sponsored projects. The research and development activities are viewed as another product line that contributes to the development, design, production and sale of fuel cell products, however, it is not considered a separate operating segment. Due to the nature of the internal financial and operational reports reviewed by the chief operating decision maker, who does not review and assess financial information at a discrete enough level to be able to assess performance of research and development activities as if it operated as a standalone business segment, we have identified one business segment: fuel cell power plant production and research.

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Revenues, by geographic location (based on the customer's ordering location) for the years ended October 31, 2011, 2010 and 2009 was as follows:

	2011	2010	2009
United States	\$ 66,531	\$ 28,764	\$ 30,450
South Korea	53,256	40,148	56,100
England	1,639		
Indonesia	675		
Germany	290	681	991
Canada	156	136	74
Japan	23	48	401
Total	\$ 122,570	\$ 69,777	\$ 88,016

**Note 14. Benefit Plans**

We have shareholder approved equity incentive plans, a shareholder approved Section 423 Stock Purchase Plan (the ESPP) and an employee tax-deferred savings plan, which are described in more detail below.

**Equity Incentive Plans**

The Board adopted the 2006 and 2010 Equity Incentive Plans (collectively, the Equity Plans). Pursuant to the Equity Plans, 5.0 million shares of common stock were reserved for issuance. The Board is authorized to grant incentive stock options, nonstatutory stock options, stock appreciation rights (SARs), restricted stock awards (RSAs), restricted stock units, performance units, performance shares, dividend equivalent rights and other stock based awards to our officers, key employees and non-employee directors. Stock options, RSAs and SARs have restrictions as to transferability. Stock option exercise prices are fixed by the Board but shall not be less than the fair market value of our common stock on the date of the grant. SARs may be granted in conjunction with stock options. Stock options generally vest ratably over four years and expire 10 years from the date of grant. As of October 31, 2011, there were 1,305,635 shares available for grant. As of October 31, 2011, equity awards outstanding consisted of incentive stock options, nonstatutory stock options and RSAs. The Company has not issued any other type of equity award to its officers, key employees and non-employee directors. The 1998 Equity Incentive Plan remains in effect only to the extent of awards outstanding under the plan as of October 31, 2011.

We account for stock options awarded to employees and non-employee directors under the fair value method. The fair value of stock options is estimated on the grant date using the Black-Scholes option valuation model and the following weighted-average assumptions:

	2011	2010	2009
Expected life (in years)	7.0	7.0	6.8
Risk free interest rate	3.0%	3.4%	2.3%
Volatility	73.0%	72.2%	72.4%
Dividends yield	0.0%	0.0%	0.0%

The expected life is the period over which our employees are expected to hold the options and is based on historical data for similar grants. The risk free interest rate is based on the expected U.S. Treasury rate over the expected life. Expected volatility is based on the historical volatility of our stock. Dividend yield is based on our expected dividend payments over the expected life.

Share-based compensation was reflected in the consolidated statements of operations as follows:

	2011	2010	2009
Cost of product sales and revenues	\$ 726	\$ 761	\$ 1,029
Cost of research and development contracts	115	175	188

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General and administrative expense	1,275	1,397	2,802
Research and development expense	457	627	780
Total share-based compensation	\$ 2,573	\$ 2,960	\$ 4,799

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The following table summarizes our stock option activity for the year ended October 31, 2011:

<b>Options</b>	<b>Shares</b>	<b>Weighted-Average Option Price</b>
Outstanding at October 31, 2010	5,118,201	\$ 10.15
Granted	216,657	\$ 1.98
Exercised		\$ 0.00
Cancelled	(2,014,300)	\$ 12.41
Outstanding at October 31, 2011	3,320,558	\$ 8.25

The weighted average grant-date fair value per share for options granted during the years ended October 31, 2011, 2010 and 2009 was \$1.38, \$2.02 and \$1.97, respectively. There were no options exercised in fiscal 2011. The total intrinsic value of options exercised during the years ended October 31, 2010 and 2009 was \$0.0 million and \$0.1 million, respectively.

The following table summarizes information about stock options outstanding and exercisable at October 31, 2011:

<b>Range of Exercise Prices</b>	<b>Number outstanding</b>	<b>Options Outstanding</b>		<b>Weighted Average Exercise Price</b>	<b>Options Exercisable</b>		<b>Weighted Average Exercise Price</b>
		<b>Average Remaining Contractual Life</b>			<b>Number exercisable</b>		
\$0.26 \$5.10	599,748	8.4	\$	2.56	542,782	\$	2.61
\$5.11 \$9.92	1,656,762	4.6	\$	7.78	1,525,887	\$	7.71
\$9.93 \$14.74	973,798	2.9	\$	11.85	973,398	\$	11.86
\$14.75 \$19.56	90,250	0.6	\$	15.89	90,250	\$	15.89
	3,320,558	4.7	\$	8.25	3,132,317	\$	8.35

There was no intrinsic value for options outstanding and exercisable at October 31, 2011.

During fiscal year 2011, we granted 1,418,538 RSAs to employees. RSA expense is based on the fair value of the award at the date of grant and is amortized over the vesting period, generally four years. The weighted average grant-date fair value of RSAs was \$1.92 per share. During the year, 497,618 RSAs were cancelled. At October 31, 2011, there were 1,800,482 outstanding RSAs with an average remaining life of 1.7 years and an aggregate intrinsic value of \$1.9 million.

As of October 31, 2011, total compensation cost related to nonvested stock options and RSAs not yet recognized was \$0.3 million and \$3.2 million, respectively, which is expected to be recognized over the next 0.3 and 1.9 years, respectively, on a weighted-average basis.

Stock may be issued to employees as part of the annual incentive bonus. During fiscal 2011, 2010 and 2009, we issued 353,543, 233,822 and 355,253 shares of common stock, respectively, in lieu of cash bonuses with values of \$0.7 million, \$0.7 million and \$1.1 million, respectively, to fulfill the accrued obligation from each of the prior fiscal years.



**Table of Contents*****Employee Stock Purchase Plan***

There were 1,900,000 shares of common stock reserved for issuance under the ESPP. Under the ESPP, eligible employees have the right to purchase shares of common stock at the lesser of (i) 85 percent of the last reported sale price of our common stock on the first business day of the offering period, or (ii) 85 percent of the last reported sale price of the common stock on the last business day of the offering period, in either case rounded up to avoid impermissible trading fractions. Shares issued pursuant to the ESPP contain a legend restricting the transfer or sale of such common stock for a period of six months after the date of purchase. As of October 31, 2011, there were 998,060 shares of common stock available for issuance under the ESPP.

ESPP activity for the year ended October 31, 2011 was as follows:

	<b>Number of Shares</b>
<b>Options</b>	
Balance at October 31, 2010	127,703
Additional shares approved by shareholders	1,000,000
Issued @ \$0.97	(129,643)
 Outstanding at October 31, 2011	 998,060

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

	<b>2011</b>	<b>2010</b>	<b>2009</b>
Expected life (in years)	0.5	0.5	0.5
Risk free interest rate	0.2%	0.2%	0.7%
Volatility	90.5%	94.0%	99.0%
Dividends yield	0.0%	0.0%	0.0%

The weighted-average fair value of shares issued under the ESPP during fiscal 2011 was \$0.97 per share.

***Employee Tax-Deferred Savings Plans***

We offer a 401(k) plan (the Plan) to all full time employees that 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 discretionary matching contributions equal to 100 percent of the employee's contribution amount, up to a maximum of 6 percent of the employee's annual salary. Participants are required to contribute a minimum of 3 percent in order to be eligible to participate and receive the matching contribution. Matching contributions begin vesting after one year and are fully vested after five years. Employee contributions are fully vested when made. Under the Plan, there is no option available to the employee to receive or purchase our common stock. In February 2009, we suspended our matching contribution. Matching contributions under the Plan were \$0.5 million for the fiscal year ended October 31, 2009.

**Table of Contents****Note 15. Income Taxes**

The components of loss from continuing operations before income taxes for the fiscal years ended October 31, 2011, 2010, and 2009 were as follows:

	<b>2011</b>	<b>2010</b>	<b>2009</b>
U.S.	\$ (46,269)	\$ (53,868)	\$ (66,582)
Foreign	408	(2,367)	(2,092)
Loss before income taxes	\$ (45,861)	\$ (56,235)	\$ (68,674)

There was a current income tax expense of \$0.1 million related to foreign withholding taxes in South Korea and no deferred federal income tax expense (benefit) for each of the years ended October 31, 2011 and 2010. There was no current or deferred federal income tax expense (benefit) for the year ended October 31, 2009. Franchise tax expense, which is included in administrative and selling expenses, was \$0.1 million, \$0.2 million and \$0.2 million for the years ended October 31, 2011, 2010 and 2009, respectively.

The reconciliation of the federal statutory income tax rate to our effective income tax rate for the years ended October 31, 2011, 2010 and 2009 was as follows:

	<b>2011</b>	<b>2010</b>	<b>2009</b>
Statutory federal income tax rate	(34.0)%	(34.0)%	(34.0)%
Increase (decrease) in income taxes resulting from:			
State taxes net of Federal benefits	(2.3)	(2.0)	(1.6)
Foreign Withholding Tax	0.3		
Net operating loss adjustment	1.7	1.6	0.5
Nondeductible expenditures	1.9	1.7	1.7
Change in State tax rate	(2.4)	7.6	12.8
Other, net	0.3		0.1
Valuation allowance	34.8	25.1	20.5
Effective income tax rate	0.3%	%	%



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Our deferred tax assets and liabilities consisted of the following at October 31, 2011 and 2010:

	<b>2011</b>	<b>2010</b>
Deferred tax assets:		
Compensation and benefit accruals	\$ 4,490	\$ 3,855
Bad debt and other reserves	3,888	3,028
Capital loss and tax credit carry-forwards	6,222	5,885
Investment in Versa	2,490	2,491
Net operating loss	202,635	188,963
Deferred license revenue	2,847	3,178
Lower of cost or market inventory reserves	1,158	1,897
Gross deferred tax assets:	223,730	209,297
Valuation allowance	(222,536)	(207,622)
Deferred tax assets after valuation allowance	1,194	1,675
Deferred tax liability:		
Investment in partnerships	(884)	(581)
Accumulated depreciation	(310)	(1,094)
Gross deferred tax liability	(1,194)	(1,675)
Net deferred tax assets	\$	\$

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 \$4.2 million of the valuation allowance will reduce additional paid in capital upon subsequent recognition of any related tax benefits.

At October 31, 2011, we had federal and state NOL carryforwards of \$629 million and \$357 million, respectively, for which a portion of the NOL has not been recognized in connection with share-based compensation. The Federal NOLs expire in varying amounts from 2020 through 2031 while state NOLs expire in varying amounts from 2012 through 2031. Additionally, we had \$9.3 million of state tax credits available, of which \$1 million expires in 2018. The remaining credits do not expire.

Certain transactions involving the Company's beneficial ownership occurred in fiscal 2011 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 completed a detailed Section 382 study in fiscal 2011 to determine if any of our NOL and credit carryovers will be subject to limitation. Based on that study we have determined that there was no ownership change as of the end of our 2011 fiscal year under Section 382.

As discussed in Note 1, the Company's financial statements reflect expected future tax consequences of 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) presuming the taxing authorities' full knowledge of the position and all relevant facts.

The liability for unrecognized tax benefits at October 31, 2011 and 2010 was \$15.7 million. This amount is directly associated with a tax position taken in a year in which federal and state NOL 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 NOL carryforwards. It is our policy to record interest and penalties on unrecognized tax benefits as income taxes; however, because of our significant NOLs, no provision for interest or penalties has been recorded.

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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. We are currently not under any income tax examinations.

**Note 16. Earnings Per Share**

Basic earnings (loss) per common share ( EPS ) are generally calculated as income (loss) available to common shareholders divided by the weighted average number of common shares outstanding. Diluted EPS is generally calculated as income (loss) available to common shareholders divided by the weighted average number of common shares outstanding plus the dilutive effect of common share equivalents.

The calculation of basic and diluted EPS for the years ended October 31, 2011, 2010 and 2009 was as follows:

	2011	2010	2009
<b>Numerator</b>			
Net loss	\$ (45,974)	\$ (56,326)	\$ (68,674)
Adjustment for modification of redeemable preferred stock of subsidiary	(8,987)		
Preferred stock dividend	(3,200)	(3,201)	(3,208)
Net loss attributable to noncontrolling interest	261	663	
Net loss to common shareholders	\$ (57,900)	\$ (58,864)	\$ (71,882)
<b>Denominator</b>			
Weighted average basic common shares	124,498,073	93,925,863	72,392,928
Effect of dilutive securities <sup>(1)</sup>			
Weighted average diluted common shares	124,498,073	93,925,863	72,392,928
Basic loss per share	(0.47)	(0.63)	(0.99)
Diluted loss per share <sup>(1)</sup>	(0.47)	(0.63)	(0.99)

- (1) Due to the net loss to common shareholders in each of the years presented above, diluted earnings per share was computed without consideration to potentially dilutive instruments as their inclusion would have been antidilutive. Potentially dilutive instruments include stock options, warrants and convertible preferred stock. At October 31, 2011, 2010 and 2009, there were options to purchase 3.3 million, 5.1 million and 5.7 million shares of common stock, respectively. On January 13, 2011 we issued 10.2 million warrants in connection with a registered direct offering. Each warrant is exercisable for 1 share of common stock. The warrants have an exercise price of \$2.29 per share and are exercisable beginning on the date that is six months and one day after the initial closing date and will expire twenty one months after issuance.

**Table of Contents****Note 17. Commitments and Contingencies*****Lease agreements***

In December 2006, we entered into a master lease agreement that allows for the lease of computer equipment up to an aggregate cost of \$2.5 million. As of October 31, 2011 and 2010, we had capital lease obligations of \$0.2 million and \$0.1 million, respectively. Lease payment terms are thirty six months from the date of lease.

We also lease certain computer and office equipment and manufacturing facilities in Torrington, and Danbury, Connecticut under operating leases expiring on various dates through 2015. Rent expense was \$1.5 million, \$1.4 million and \$1.4 million for the fiscal years ended October 2011, 2010 and 2009, respectively.

Non-cancelable minimum payments applicable to operating and capital leases as of October 31, 2010 were as follows:

	<b>Operating Leases</b>	<b>Capital Leases</b>
2012	\$ 860	\$ 110
2013	855	94
2014	852	44
2015	483	
2016	75	
Thereafter		
Total	\$ 3,125	\$ 248

***Service and warranty agreements***

Under the provisions of our LTSAs, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Under the terms of our LTSA, the power plant must meet a minimum operating output during the term. If minimum output falls below the contract requirement, we may be subject to performance penalties or may be required to repair or replace the customer's fuel cell stack. An estimate is not recorded for a potential performance guarantee liability until a performance issue has occurred on a particular power plant. At that point, the actual power plant's output is compared against the minimum output guarantee and a reserve is recorded. The review of power plant performance is updated for each reporting period to incorporate the most recent performance of the power plant and minimum output guarantee payments made to customers, if any. The Company has provided for a reserve for performance guarantees, which is based on actual historical fleet performance which totaled \$2.2 million and \$1.2 million as of October 31, 2011 and 2010, respectively and is recorded in Accrued Liabilities.

Our reserves on LTSA contracts, excluding the reserve for performance guarantees, totaled \$8.9 million, \$6.6 million and \$6.0 million as of October 31, 2011, 2010 and 2009, respectively and is recorded in Accrued Liabilities. Our reserve estimates are performed on a contract by contract basis and include cost assumptions based on what we anticipate the service requirements will be to fulfill obligations for each contract.

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The revenue and cost of our LTSAs in the fiscal years ended October 31, 2011, 2010 and 2009, were as follows:

	<b>2011</b>	<b>2010</b>	<b>2009</b>
Revenue	\$ 10,529	\$ 6,850	\$ 5,015
Costs	(14,629)	(20,774)	(19,386)
Costs in Excess of revenue	\$ (4,100)	\$ (13,924)	\$ (14,371)

In fiscal 2008, our five-year fuel cell stack went into production and was placed in service during fiscal 2009, 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 PPAs, customers agree to purchase power from our fuel cell power plants at negotiated rates. Electricity rates are generally a function of the customers' current and future electricity pricing available from the grid. 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, generally natural gas, to run the power plants. 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.

***Other***

We are involved in legal proceedings, claims and litigation arising out of the ordinary conduct of our business. Although we cannot assure the outcome, management presently believes that the result of such legal proceedings, either individually, or in the aggregate, will not have a material adverse effect on our consolidated financial statements, and no material amounts have been accrued in our consolidated financial statements with respect to these matters.

**Note 18. Supplemental Cash Flow Information**

The following represents supplemental cash flow information:

	<b>Year Ended October 31,</b>		
	<b>2011</b>	<b>2010</b>	<b>2009</b>
Cash interest paid	\$ 182	\$ 241	\$ 264
Income taxes paid	\$ 17	16	
Noncash financing and investing activity:			
Common stock issued for employee annual incentive bonus	\$ 707	673	1,076
Common stock issued for Employee Stock Purchase Plan in settlement of prior year accrued employee contributions	\$ 58	109	
Adjustment for modification of redeemable preferred stock of subsidiary	\$ 8,987		

**Table of Contents****Note 19. Quarterly Information (Unaudited)**

Selected unaudited financial data for each quarter of fiscal years 2011 and 2010 is presented below. We believe that the information reflects all normal recurring adjustments necessary for a fair presentation of the information for the periods presented.

	<b>First Quarter</b>	<b>Second Quarter</b>	<b>Third Quarter</b>	<b>Fourth Quarter</b>	<b>Full Year</b>
<b>Year ended October 31, 2011</b>					
Revenues	\$ 28,080	\$ 28,607	\$ 31,160	\$ 34,723	\$ 122,570
Gross profit (loss)	(2,316)	(10,870)	137	439	(12,610)
Loss on operations	(10,612)	(19,822)	(7,359)	(7,884)	(45,677)
Net loss	(11,007)	(20,008)	(7,830)	(7,129)	(45,974)
Preferred stock dividends	(800)	(800)	(800)	(800)	(3,200)
Net loss to common shareholders	(11,738)	(29,743)	(8,554)	(7,865)	(57,900)
Net loss to common shareholders per basic and diluted common share <sup>(1)</sup>	\$ (0.10)	\$ (0.24)	\$ (0.07)	\$ (0.06)	\$ (0.47)
<b>Year ended October 31, 2010</b>					
Revenues	\$ 14,616	\$ 16,587	\$ 18,873	\$ 19,701	\$ 69,777
Gross loss	(5,493)	(5,800)	(3,756)	(3,604)	(18,653)
Loss on operations	(14,269)	(15,436)	(12,559)	(12,101)	(54,365)
Net loss	(14,718)	(15,978)	(13,114)	(12,516)	(56,326)
Preferred stock dividends	(802)	(800)	(799)	(800)	(3,201)
Net loss to common shareholders	(15,434)	(16,682)	(13,825)	(12,923)	(58,864)
Net loss to common shareholders per basic and diluted common share <sup>(1)</sup>	\$ (0.18)	\$ (0.20)	\$ (0.15)	\$ (0.11)	\$ (0.63)

(1) The full year net loss to common shareholders basic and diluted share may not equal the sum of the quarters due to weighting of outstanding shares.

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**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.

**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, 2011, 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, 2011 based on the specified criteria.

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**Changes in Internal Control Over Financial Reporting.**

There have been no changes in the Company's internal controls over financial reporting during the most recent fiscal quarter that have materially affected, or are 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 2011 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 2011 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 2011 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 2011 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 2011 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**

The following documents are filed as part of this report:

1. Financial Statements See Index to Consolidated Financial Statements at Item 8 of the Annual Report on Form 10-K.
2. 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
3. Exhibits The following exhibits are filed as part of, or incorporated by reference into, this Annual Report on Form 10-K.

**EXHIBITS TO THE 10-K**

<b>Exhibit No.</b>	<b>Description</b>
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)
3.1.2	Certificate of Amendment of the Certificate of Incorporation of the Registrant filed herewith.
3.2	Amended and Restated By-Laws of the Registrant, dated December 15, 2011 (incorporated by reference to exhibit 3.1.1 of the same number contained in the Company's Form 8-K dated December 21, 2011)
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)
4.2	Schedule A to Articles of Amendment of FuelCell Energy, Ltd., setting forth the rights, privileges, restrictions and conditions of Class A Cumulative Redeemable Exchangeable Preferred Shares (incorporated by reference to exhibit of the same number contained in the Company's Form 10-Q for the period ended January 31, 2009).
4.3	Certificate of Designation for the 5% Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000) (incorporated by reference to Exhibit 3.1 contained in the Company's Form 8-K, dated November 22, 2004).
10.1	** Alliance Agreement between FuelCell Energy, Inc. and POSCO Power, dated as of February 7, 2007 (incorporated by reference to exhibit of the same number contained in the Company's Form 10-Q/A for the period ended January 31, 2009).
10.2	** Technology Transfer, License and Distribution Agreement between FuelCell Energy, Inc. and POSCO Power, dated as of February 7, 2007 (incorporated by reference to exhibit of the same number contained in the Company's Form 10-Q/A for the period ended January 31, 2009).



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**EXHIBITS TO THE 10-K**

<b>Exhibit No.</b>	<b>Description</b>
10.3	Loan agreement, dated April 29, 2008, between the Company and the Connecticut Development Authority (incorporated by reference to exhibit of the same number contained in the Company's Form 10-Q for the period ended January 31, 2009).
10.4	**Stack Technology Transfer and License Agreement dated as of October 27, 2009, by and between FuelCell Energy, Inc. and POSCO Power (incorporated by reference to exhibit 10.1 of the Company's Form 8-K, dated November 2, 2009).
10.5	**Contract for the Supply of DFC Modules and DFC Components dated as of June 9, 2009, by and between FuelCell Energy, Inc. and POSCO Power (incorporated by reference to exhibit 10.2 of the Company's Form 8-K, dated November 2, 2009).
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)
10.37	*Amendment to the The FuelCell Energy, Inc. Section 423 Stock Purchase Plan (incorporated by reference to Annex A contained in the Company's DEF 14A dated February 23, 2011)
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)
10.58	*The FuelCell Energy, Inc. 2006 Equity Incentive Plan (incorporated by reference to the Company's S-8 filing on January 23, 2007)
10.59	*The FuelCell Energy, Inc. 2010 Equity Incentive Plan (incorporated by reference to the Company's S-8 filing on April 19, 2010)
10.61	Export loan agreement dated January 4, 2011, between the Company and JPMorgan Chase Bank, N.A. (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the period ended October 31, 2010 dated January 14, 2011)
10.62	

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Security Agreement dated January 4, 2011, between the Company and JPMorgan Chase Bank, N.A. (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the period ended October 31, 2010 dated January 14, 2011)

- 10.63 Intracreditor Subordination and Confirmation Agreement made and effective as of January 4, 2011 by JPMorgan Chase Bank, N.A. (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the period ended October 31, 2010 dated January 14, 2011)
- 10.64 Promissory Note dated January 4, 2011, between the Company and JPMorgan Chase Bank, N.A. (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the period ended October 31, 2010 dated January 14, 2011)

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**EXHIBITS TO THE 10-K**

<b>Exhibit No.</b>	<b>Description</b>
10.65	*Employment Agreement, dated January 28, 2010 between FuelCell Energy, Inc. and Arthur Bottone, Senior Vice President, Chief Commercial Officer (incorporated by reference to exhibit of the same number contained in the Company's 10-K for the period ended October 31, 2010 dated January 14, 2011).
10.66	*First Amendment to Employment Agreement, dated December 19, 2011 and effective as of January 1, 2012 between FuelCell Energy, Inc. and Arthur Bottone, President and Chief Executive Officer (incorporated by reference to exhibit 10.3 of the Company's Form 8-K dated December 23, 2011).
10.67	*Employment Agreement, dated December 19, 2011 and effective as of January 1, 2012 between FuelCell Energy, Inc. and Anthony Rauseo, Chief Operating Officer (incorporated by reference to exhibit 10.1 of the Company's Form 8-K, dated December 23, 2011).
10.68	*Employment Agreement, dated December 19, 2011 and effective as of January 1, 2012 between FuelCell Energy, Inc. and Michael Bishop, Chief Financial Officer (incorporated by reference to exhibit 10.1 of the Company's Form 8-K, dated December 23, 2011).
10.69	Letter Agreement dated March 31, 2011, Guarantee dated April 1, 2011 by and between the Company and Enbridge, Inc. and Revised Special Rights and Restrictions attributable to the Class A Preferred Stock of FuelCell Energy, Ltd. for each (incorporated by reference to the Company's Form 8-K dated April 6, 2011).
10.70	Second Amendment dated January 4, 2012 to the Export loan agreement dated January 4, 2011, between the Company and JPMorgan Chase Bank, N.A.
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, 2003)
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

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**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 on January 17, 2012.

**FUELCELL ENERGY, INC.**

/s/ Arthur A. Bottone

Dated: January 17, 2012

Arthur A. Bottone  
President, Chief Executive Officer and  
Director

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.

<b>Signature</b>	<b>Capacity</b>	<b>Date</b>
/s/ Arthur A. Bottone	President, Chief Executive Officer and Director	January 17, 2012
Arthur A. Bottone	(Principal Executive Officer)	
/s/ Michael S. Bishop	Senior Vice President, Chief Financial Officer, Treasurer and Corporate Secretary	January 17, 2012
Michael S. Bishop	(Principal Accounting and Financial Officer)	
/s/ Richard A. Bromley	Director	January 17, 2012
Richard A. Bromley		
/s/ James H. England	Director	January 9, 2012
James H. England		

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<b>Signature</b>	<b>Capacity</b>	<b>Date</b>
/s/ James D. Gerson James D. Gerson	Director	January 13, 2012
/s/ William A. Lawson William A. Lawson	Director	January 9, 2012
/s/ George K. Petty George K. Petty	Director	January 14, 2012
/s/ John A. Rolls John A. Rolls	Director Chairman of the Board	January 10, 2012
/s/ Togo Dennis West Jr. Togo Dennis West Jr.	Director	January 11, 2012



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**INDEX OF EXHIBITS**

Exhibit 3.1.2	Certificate of Amendment of the Certificate of Incorporation
Exhibit 10.70	Second Amendment dated January 4, 2012 to the Export loan agreement dated January 4, 2011, between the Company and JPMorgan Chase Bank, N.A.
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