FUELCELL ENERGY INC
Form 10-K
January 06, 2014

UNITED STATES

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

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

For the fiscal year ended October 31, 2013
OR

o 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	Name of each exchange on which registered
Common Stock, $.0001 par value per share	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 o No þ
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 o No þ

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 þ No o
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 þ No o
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. o
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 o	Accelerated filer þ	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No þ
As of April 30, 2013, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was $164,856,867 based on the closing sale price of $1.05 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 December 31, 2013
Common Stock, $.0001 par value per share	205,379,875 shares

DOCUMENT INCORPORATED BY REFERENCE

Document	Parts Into Which Incorporated
Proxy Statement for the Annual Meeting of Shareholders to be held March 27, 2014 (Proxy Statement)	Part III

FUELCELL ENERGY, INC.

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PART I

Item 1. BUSINESS

Forward-Looking Statement Disclaimer

When used in this report, the words “expects”, “anticipates”, “estimates”, “should”, “will”, “could”, “would”, “may”, and simil 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”) fuel cell 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 to mid-size (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 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^{o}F to 60^{o}F at a specified constant pressure.

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.

Carbonate Fuel Cell (CFC) - Carbonate fuel cells, such as the fuel cell power plants produced and sold by FuelCell Energy, are high-temperature fuel cells that use an electrolyte composed of a molten carbonate salt mixture suspended in a porous, chemically inert ceramic-based matrix. CFC's operate at high temperatures, enabling the use of a nickel-based catalyst, a lower cost alternative to precious metal catalysts used in some other fuel cell technologies.

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.

Direct FuelCell® (DFC®) - Trademarked product name of FuelCell Energy commercial carbonate fuel cell plants that references the internal reforming process within the fuel cell of a hydrogen-rich fuel source such as natural gas.

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.

Reforming - Catalytic conversion of hydrocarbon fuel (such as natural gas or renewable biogas) to hydrogen-rich gas. The hydrogen-rich gas serves as a fuel for the electrochemical fuel cell power generation reaction.

Renewable Biogas - Renewable biogas is fuel produced by biological breakdown of organic material. Biogas is commonly produced in biomass digesters employing bacteria in a heated and controlled oxygen environment. These digesters are typically used at wastewater treatment facilities or food processors to breakdown solid waste and the biogas is produced as a byproduct of the waste digestion. Biomass may be generated in digesters from agricultural waste, or it can be produced in less controlled fashion by breakdown of waste in landfills. These biogas fuels can be used as a renewable fuel source for Direct FuelCells located on site where the biogas is produced with minimal gas cleanup, or they can be processed further to meet pipeline fuel standards and injected into a gas pipeline network, which is termed Directed Biogas.

Solid Oxide Fuel Cell (SOFC) - Solid oxide fuel cells (SOFC) use a hard, non-porous ceramic compound as the electrolyte. Solid oxide fuel cells operate at very high temperatures eliminating the need for costly precious-metal catalysts, thereby reducing cost. The high temperature enables internal reforming of the hydrogen rich fuel source.

Sulfur Oxide (SOx) - Sulfur oxide refers to any one of the following: sulfur monoxide, sulfur dioxide (SO2) and sulfur trioxide. SO2 is a byproduct of various industrial processes. Coal and petroleum contain sulfur compounds, and generate SO2 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.

Overview

We are a leading integrated fuel cell company with an expanding global presence. We design, manufacture, sell, install, operate 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. FuelCell Energy was founded in Connecticut in 1969 as an applied research organization, providing contract research and development. The Company went public in 1992, raising capital to develop and commercialize fuel cells and reincorporated in Delaware in 1999. We began selling stationary fuel cell power plants commercially in 2003. Our plants are operating in more than 50 locations worldwide in nine countries and have generated more than two billion kilowatt hours (kWh) of electricity, which is equivalent to powering more than 181,000 average size U.S. homes for one year. Our steadily growing installed base and backlog exceeds 300 megawatts (MW).

We provide comprehensive turn-key power generation solutions to our customers including installation of the power plants as well as operating and maintaining the plants under multi-year service agreements. We target large-scale power users with our megawatt-class installations. As reference, one megawatt is adequate to power approximately 1,000 average sized US homes. 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 value proposition provides highly efficient and environmentally friendly power generation with easy-to-site stationary fuel cell power plants. The power plants are located next to or within populated buildings as they are virtually pollutant free, operate quietly and without vibrations, and have modest space requirements. Locating the power generation near the point of use provides many advantages including less reliance or even avoidance of the transmission grid leading to enhanced energy security and power reliability. Our power plants provide electricity 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.

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 and we have a clear path to attaining this vision which we believe can be achieved with a production volume of approximately 210 megawatts annually. This capacity is either already available or currently under construction, as discussed in the ‘Manufacturing’ section below.

We provide distributed power generation solutions that provide multiple value streams in a highly efficient and environmentally friendly manner, with product solutions in the following three areas:

Direct FuelCell® (DFC®) power plants
Our DFC power plants use a variety of available fuels to produce electricity electrochemically, in a process that is highly efficient, quiet, and due to the avoidance of combustion, 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, suitable for making steam for facility and water heating as well as absorption cooling. System efficiencies can reach up to 90 percent, depending on the application, when configured for Combined Heat and Power (CHP). Unlike intermittent solar and wind power, DFC plants are able to operate continuously regardless of geography, weather or time of day and with very modest space requirements that can be only one tenth of the land required for a solar array offering a similar power output.

We service two primary markets: ultra-clean power (fuel cells operating on natural gas) and renewable power (fuel cells operating on renewable biogas). Our global expansion strategy targets 11 distinct vertical submarkets focusing on regions that value environmentally friendly distributed generation.

Solid Oxide fuel cell power plants

We are developing for commercialization solid oxide fuel cell (SOFC) power plants targeting sub-megawatt applications such as office buildings, high rise residential and wastewater treatment plants that are not large enough to support a megawatt-class DFC power plant. Our solid oxide initiatives are leveraging our existing expertise with power plant design as well as manufacturing at high volume. We employ some of the world's foremost experts on SOFC technology, with research and development initiatives at our facilities in Danbury, Connecticut, Littleton, Colorado, and Calgary Canada. We believe our technology is well suited for addressing the needs of the market with very high electrical efficiency, combined heat and power capability, and the ability to operate on a variety of fuels including natural gas, renewable biogas or directed biogas. We have successfully demonstrated extended testing of our SOFC technology in configurations of 3 kW to 60 kW and are currently

working on both a renewable biogas demonstration at a dairy farm and a larger scale installation in Connecticut, both that will connect directly to the electric grid. We are actively seeking partners to commercialize our SOFC technology.

Distributed hydrogen generation

Our DFC technology is flexible, capable of providing multiple value streams, including electricity, heat and hydrogen. Hydrogen is generated within the fuel cells from the external fuel source (i.e. natural gas or biogas) although not all of the hydrogen is used by the power generation process. We have a demonstration tri-generation plant located at a wastewater treatment facility in California, USA that has operated for over two years providing on-site hydrogen suitable for industrial purposes or vehicle fueling. We are targeting on-site hydrogen generation applications that will utilize a megawatt-class DFC plant, with expectations of providing hydrogen at competitive market prices.

Products

Our core fuel cell products (Direct FuelCell® or DFC® power plants) offer ultra-clean, highly efficient baseload power generation for customers including the 2.8 MW DFC3000®, the 1.4 MW DFC1500® and the 300 kW DFC300®. Our target customers are large power users with baseload power needs that support at least a 1.4 MW power plant. The plants are scalable for multi-megawatt utility scale applications or on-site power generation for large institutions and industrial applications. The sub-megawatt DFC300 is useful as a demonstration for showcasing the capabilities of DFC plants to new markets. We also market multi-megawatt DFC-ERG® (Direct FuelCell Energy Recovery Generation™) 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 DFC product line is based on one core carbonate fuel cell technology enabling volume based cost reduction and optimal resource utilization.

Our DFC power plants are able to 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 can be combined with 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_2), 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_2 per unit of power production compared to the average U.S. fossil fuel power plant, and the carbon emissions are reduced even further when configured for combined heat and power. When operating on renewable biogas, many government agencies and regulatory bodies classify DFC power plants 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 a CHP configuration, depending on the application. The electric grid in the United States is approximately 36 percent electrically efficient and does not support CHP configurations.

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, enhancing the resiliency of the power supply.
- Ultra-clean: Our DFC power plants produce electricity electrochemically – without combustion – directly from readily available fuels such as 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 (NOx) that causes smog, sulfur oxide (SOx) or particulate matter (i.e. PM-10) that exacerbates asthma and other health concerns. The virtual absence of pollutants facilitates siting the power plants in regions with clean air permitting regulations and is 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 up to 90 percent, depending on the application.

- 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 are able to operate continuously regardless of geography or weather.
- Fuel flexibility: Our DFC power plants operate on a variety of existing and readily available fuels including natural gas, renewable biogas, directed biogas and propane.
- Scalability: Our DFC power plants are scalable, providing a cost-effective solution to adding power incrementally as demand grows, such as multi-megawatt fuel cell parks supporting the electric grid.
- Quiet operation: Because they produce power without combustion and contain very few moving parts, our DFC power plants operate quietly and without vibrations.
- 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 facilitate the installation of the power plants in urban locations such as next to hospitals or in the basement of office towers.

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 electric grid. Our plants support micro-grid applications with their ability to operate independently of the electric grid.

On-Site Power: Our DFC power plants generate power efficiently, cleanly and reliably for on-site applications using natural gas or renewable biogas. Customers benefit from improved power reliability and energy security as installing DFC plants reduces reliance on the electric grid. Utilization of the high quality heat produced by the fuel cell in a combined heat and power (CHP) configuration supports economics and sustainability goals by lessening or even avoiding the need for combustion-based boilers for heat and their associated cost, pollutants and carbon emissions. On-site DFC power plants also help solve waste disposal problems for operations that generate biogas, a greenhouse gas, as the waste biogas is a fuel source for the DFC plant. This capability to utilize on-site biogas allows wastewater treatment facilities and food and beverage processors to avoid the release of this greenhouse gas into the atmosphere or eliminate gas flaring, which emits pollutants and wastes a potential revenue source.

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 a 5 plant, 14.9 MW fuel cell park in Bridgeport, Connecticut that is supplying the electric grid and a 4 plant, 10.4 MW and a 4 plant, 11.2 MW fuel cell parks in South Korea that are providing power to the electric grid along with a 21 plant, 59 MW fuel cell park that became operational at the end of 2013 in Hwasung City, South Korea. Fuel cell parks enable electric utilities to add clean baseload power generation when and where needed. A 10 MW fuel cell park only requires about one acre of land whereas an equivalent size solar array requires up to ten times as much land, illustrating how fuel cell parks are easy to site in populated areas.

Fuel cell parks enhance the resiliency of the electric grid by reducing reliance on large central generation plants and the associated transmission grid. 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. Thus, our products can help reduce investment in new central generation and transmission infrastructure which is costly, difficult to site and expensive to maintain. Deploying our DFC power plants throughout a utility service territory can also help utilities comply with government-mandated clean energy regulations and meet air quality standards.

As renewable technologies such as 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 intermittent wind and/or solar power generation.

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 less carbon dioxide (CO_2) and only trace levels of pollutants compared to combustion-type power generation. The following table illustrates the favorable emission profile of our DFC power plants.

	Emissions (Lbs. Per MWh)				
	NO_X	SO_2	PM_{10}	CO_2	CO_2 with CHP
Average U.S. Fossil Fuel Plant	5.06	11.6	0.27	2,031	NA
Microturbine (60 kW)	0.44	0.008	0.09	1,596	520 - 680
Small Gas Turbine	1.15	0.008	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 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, natural gas has an established infrastructure so our products are not dependent on the development of a hydrogen delivery infrastructure.

The Direct FuelCell operates at approximately 1,200° Fahrenheit. An advantage of high temperature fuel cells is that they do not require 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 these lower temperature fuel cells. As a result, we are able to use less expensive catalysts and readily available metals for our power plants. In addition, our DFC fuel cell produces high quality byproduct heat (700°F) that can be utilized for CHP applications using hot water, steam or chiller water for facility heating and cooling.

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 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. We are also actively developing solid oxide fuel cell (SOFC) technology. Other fuel cell types that may be used for commercial applications include phosphoric acid (PAFC) and proton exchange membrane (PEM). The following table illustrates industry estimates of the electrical efficiency, operating temperature, expected capacity range and byproduct heat use of the four principal types of fuel cells as well as highlights typical market applications:

	MW - Class	Sub-MW-Class		Micro CHP	Mobile
Technology	Carbonate (MCFC)	Phosphoric Acid (PAFC)	Solid Oxide (SOFC)	PEM/ SOFC	Polymer Electrolyte Membrane (PEM)
System size range	300kW - 2.8 MW	400kW	up to 200 kW	< 10 kW	5 - 100 kW
Typical Application	Utilities, universities, industrial - baseload	Commercial buildings - baseload	Commercial buildings - baseload	Residential and small commerical	Transportation
Fuel	Natural gas, Biogas, others	Natural gas	Natural gas	Natural gas	Hydrogen
Advantages	Efficiency, scalable, fuel flexible & CHP	CHP	Efficiency	Load following & CHP	Load Following
Electrical efficiency		40% - 42%	50% - 60%	25% - 35%	25% - 35%

	43% - 47% (or ~50% w/ organic rankine cycle or ~70% w/ turbine cycle)				
Combined Heat & Power (CHP)	Steam, hot water, chilling & bottoming cycles	Hot water, chilling	Depends on technology used	Suitable for facility heating	No, which is preferred for transportation applications

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, costly, and generally takes many years to build. 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. 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 markets:
1) Utilities and Independent Power Producers (IPP)
2) Education and Healthcare
3) Gas Transmission
4) Industrial and Data centers
5) Commercial and Hospitality
6) Oil Production and Refining
7) Government

The 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 Energy Co, LTD. (POSCO Energy), a subsidiary of South Korean-based POSCO (NYSE: PKX), one of the world's largest steel manufacturers. To date, POSCO Energy has ordered more than 260 megawatts of DFC power plants, modules and components.

Our DFC power plants are producing power for a variety of commercial, industrial, municipal and government customers including food processing plants, universities, government buildings, hotels and military installations. These institutions desire efficient, ultra-clean baseload power to reduce operating expenses, reduce greenhouse gas emissions to meet their sustainability goals, and achieve secure and reliable on-site power.

Renewable Power markets:
1. Wastewater
2. Food and Beverage
3. Agriculture
4. Landfill Gas

Wastewater treatment facilities, food and beverage processors and agricultural operations produce 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, DFC plants transform waste disposal challenges into clean energy solutions.

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 to support daily operations at the wastewater treatment facility, the overall thermal efficiency of these installations is very attractive, supporting economics and sustainability. A 2.8 MW DFC3000 power plant operating on renewable biogas at a water treatment facility in California is the world's largest fuel cell plant utilizing renewable biogas.

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 and a demonstration plant is being installed at a landfill in Vancouver, Canada to convert the landfill gas into multiple value streams, including electricity, heat and hydrogen suitable for vehicle fueling or industrial purposes.

The DFC plants can utilize either renewable biogas generated by the customer on-site or directed biogas, generated at a distant location and transported via the existing gas distribution network. However, directed biogas involves a greater degree of cleaning of the gas to meet pipeline standards.

Ownership models

There are three different ownership models utilized by our customer base:

- Direct Ownership: The end-user of the power purchases and owns the power plant, such as an industrial company.
- Project investor ownership: An intermediary purchases and owns the power plant, selling 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 project investor intermediaries that own the plants and sell the power under PPA's to the end user with examples of end users including municipal water treatment facilities and universities.
- Utility rate-base: Electric utilities purchase and own the power plants under a rate-base model. We have sold power plants to two different electric utilities in California who have included the plants in their rate base. This is a model that we are pursuing with other utilities in additional U.S. states.

Availability of capital helps to drive adoption, as some end-users of the power prefer not to own the power plants directly. Tax-exempt organizations like universities or municipalities prefer a power purchase agreement model that avoids an initial up-front capital investment and directs the available incentives to project investors that can monetize the tax credits. The financial investors earn attractive financial returns within acceptable risk parameters. Credit risk is mitigated by strong credit off-takers that are typically supported by a State (i.e. state universities), have taxing authority (municipalities), or a strong credit profile measured by debt ratings (industrial customers). The Company operates and maintains the power plants under service agreements generally matching the term of the agreement with the underlying power purchase agreement or length of financing. This aligns our interests with project investors as approximately half of our total revenue from an individual project is earned as the plant performs over time as the total revenue earned from a service agreement can be as much as the initial acquisition cost of the power plant.

Geographic Markets

We target geographic markets with high energy costs that value clean distributed generation and have regulatory and legislative support such as clean air requirements and economic incentives to support the adoption of clean and renewable power generation. Renewable Portfolio Standards (RPS) are one market enabler for demand of our power generation solutions.

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. Countries (in the case of South Korea) and States (in certain parts of the United States) may also provide incentives or other economic mechanisms to encourage the deployment of qualified technologies under RPS programs which creates a competitive marketplace whereby renewable energy costs are levelized and competitive with cheaper fossil fuel based generation. An RPS may also 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.

South Korea: The RPS in South Korea took effect at the beginning of 2012, requiring an increase of new and renewable power generation to 10 percent by 2022 from 2 percent in 2012. The program mandates the addition of 0.5

percent of renewable power generation per year through 2016, which equates to approximately 350 megawatts, increasing to 1 percent per year through 2022 or approximately 700 megawatts per year. 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 for power generation, ease of siting in populated areas, and the poor wind and solar profiles of the Korean Peninsula. The South Korean government has made clean distributed generation power sources a priority 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 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 have RPS’s that require utilities to provide a certain amount of their electricity from renewable sources, including

fuel cells. RPS requirements or goals have been established in 30 states plus the District of Columbia. Fuel cells using biogas qualify as renewable power generation technology in all of the RPS states in the U.S., and seven states specify that fuel cells operating on natural gas are also eligible for these initiatives in recognition of the high efficiency of fuel cells and near-zero pollutants.

Most of our installed base in the U.S. is located in California and Connecticut, both of which have enacted RPS programs. The clean energy requirement in California is 33 percent and the State is undertaking an initiative to deploy 12,000 megawatts of clean 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 facilitates the clean air permitting process. All three of our DFC power plant models, including the 2.8 MW DFC3000, 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 and both the DFC1500 and DFC300 are certified for operation on renewable biogas. In the State of California, the CARB 2007 certification allows the local Air Quality Management District to exempt the fuel cell installation from the clean air permitting process, which accelerates the approval process. Outside of California, the CARB 2007 certification independently validates the clean air profile of DFC plants.

Programs which benefit fuel cells in California are the Self-Generation Incentive Program (SGIP), a renewable feed in tariff (FIT) program, 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 natural gas. Under both FIT programs, excess electricity not used on-site can be sold at a price higher than the normal wholesale power rate. These feed-in tariffs may improve the economics of some fuel cell projects.

California's carbon reduction cap and trade program under Assembly Bill AB32 provides preferential treatment for fuel cells as they are excluded from the compliance obligations of the program, whether operating on natural gas or renewable biogas. This legislation supports the economics of fuel cell power plants as facilities with combustion based power generation, heating and/or cooling can reduce or eliminate their compliance costs by deploying fuel cells. The latest carbon auction from August 2013 valued carbon credits at $12.12/ton, a level that attracts attention as it is high enough to favorably impact project economies and represents an increase from the initial auction at approximately $10/ton.

Connecticut: Connecticut has adopted a comprehensive clean energy policy, including a state RPS, designed to increase energy efficiency and expand renewable power and a long-term renewable energy credit (LREC) program funded with $300 million over 20 years. The LREC program is expected to be more effective in fostering the near-term adoption of clean distributed generation than prior legislation. The State also passed legislation that allows each of the Connecticut electric utilities to own up to 10 MW of renewable power generation, including fuel cells. Prior to this legislation, the utilities owned only transmission and distribution, as they were not permitted to own power generation as well as transmission and distribution.

Our DFC power plants are providing power for food processors, a university, an insurance company data center and government facilities in the State as well as the previously mentioned 14.9 MW fuel cell park to support the electric grid and a plant is being installed at a hospital. As we grow, our Company is contributing to the state economy, creating sustainable and good paying jobs in the manufacturing sector as well as research, engineering and administrative jobs.

Other U.S. States: We have active business development activities in other states including New York and New Jersey. New Jersey, for example, implemented a program to support the adoption of clean distributed generation in combined heat and power configurations, including fuel cells. We are actively pursuing opportunities under this program. As states look to meet their RPS requirements and utilities further to deploy distributed generation to meet consumer demand and improve the resiliency of their service network, we see significant opportunities to grow our U.S. footprint. Trends away from central generation are supportive of demand and our initiatives to continue to lower product costs are expected to lead to increased adoption.

Canada: Our DFC-ERG (Direct FuelCell Energy Recovery Generation™) 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. The first DFC-ERG power plant was installed in Toronto in 2008. The 2.2 MW 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. We see further market opportunities for this application on natural gas pipelines.

Europe: The European power generation market values efficiency and low emissions and represents significant opportunity for stationary fuel cell power plants. We are targeting Germany as they transition away from nuclear power generation and struggle to integrate a significant amount of intermittent power generation capacity, and the United Kingdom as they work to achieve aggressive carbon reduction goals. Our European Served Area pipeline also includes potential projects in other European countries including Italy, Spain, France as well as the Middle East.

FuelCell Energy Solutions, GmbH (FCES) is a German-based joint venture that is 75 percent owned by FuelCell Energy and 25 percent owned by German-based Fraunhofer Institute for Ceramic Technologies and Systems IKTS (Fraunhofer IKTS). Fraunhofer IKTS focuses on the development of new energy supply systems using ceramic system components, including fuel cells. As discussed in greater detail below, Fraunhofer IKTS has expertise in fuel cell technology and is assisting with the development of the European market for our products. FCES sold a DFC power plant to the developer of a government office complex in Berlin, Germany that will house a Federal Ministry and sold a DFC power plant to the developer of an office tower in London, England. Both installations are high-visibility locations that are expected to increase awareness of the attributes and benefits of clean distributed generation fuel cell power plants.

Geographic data is reported in Note 12 to the consolidated financial statements in Part II, Item 8, “Consolidated Financial Statements And Supplementary Data” of the Form 10-K Report.

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 annual production volume of 80 MW to 90 MW, we can achieve net income profitability. We believe that global production volume of 210 MW will result in product cost reductions adequate to enable pricing below the electric grid without incentives, further driving adoption. 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. We have reduced the product cost of our megawatt-class power plants by more than 60 percent from the first commercial installation in 2003.

We are targeting vertical markets and geographic markets that value clean distributed generation, are located in markets where the cost of grid-delivered electricity is high, and have supportive legislative and regulatory programs that harmonize energy, economic and environmental policies. Our business model addresses all three of these policy areas with highly efficient and economically attractive distributed generation that offers local job creation potential and delivers power in a low-carbon, virtually pollutant-free manner. Geographic markets that meet these criteria and where we are already well established include South Korea, California and Connecticut and we are pursuing opportunities in Western Europe as well as select states in Northeast USA.

Revenue diversification is a strategic priority including diversification by geography, by market and by revenue source. As an illustration, Services revenue represents a stable and consistent source of revenue and remains a growth focus for the Company. We have executed long-term service agreements with substantially all of our customers. These service agreements help us partner more closely with customers to deliver the value they expect and create opportunities for us to provide additional services. Service agreements generate predictable and stable recurring revenue; as our installed base continues to grow they are expected to generate sustainable revenue and contribute to profitability.

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 power generation 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 Energy: We partner with POSCO Energy, an Independent Power Producer (IPP) with annual revenues of approximately $2.5 billion and a subsidiary of South Korean-based POSCO, one of the world's largest steel manufacturers (NYSE: PKX). POSCO Energy owns 30.8 million of our common shares or approximately 16 percent of outstanding shares. POSCO Energy has extensive experience in power plant project development, owning and operating power plants in multiple countries and having built over 3,300 megawatts of power plants, equivalent to 4.3 percent of South Korea's national capacity.

Our relationship with POSCO Energy has expanded to support growing market demand for clean baseload distributed generation. We sold to POSCO Energy a sub-megawatt demonstration plant in 2003 and now the world's largest fuel cell park consisting of 21 DFC3000 power plants is nearing completion in South Korea. Major developments in the relationship include the following:

- In February 2007, we signed a 10-year manufacturing and distribution agreement with POSCO Energy to distribute and package DFC power plants in South Korea.
- In October 2009, we entered into a Stack Technology Transfer and License Agreement allowing POSCO Energy to assemble fuel cell scheduled module replacements from cell and module components provided by us. These fuel cell modules are combined with balance of plant (BOP) manufactured in South Korea to complete the fuel cell power plants for sale in South Korea or export to Asian markets.
- In October 2012, we entered into a Cell Technology Transfer and License Agreement, which provides the intellectual property and rights for POSCO Energy to manufacture DFC fuel cell components in South Korea. With the execution of this agreement, POSCO Energy has the rights to manufacture the entire DFC power plant in South Korea. This relationship with POSCO Energy illustrates our strategy of executing locally for economic development, while leveraging our global expertise and infrastructure.

POSCO Energy has 100 megawatts of local BOP manufacturing capacity and fuel cell module assembly and conditioning capacity, and is currently constructing a DFC fuel cell component production facility with annual capacity up to 200 megawatts and initially configured with manufacturing equipment for 100 MW annually. An integrated global supply chain is closely managed by FuelCell Energy and will be used for supplying both the new POSCO Energy facility in Pohang, South Korea as well as production facilities in North America and Europe. Greater purchasing volume and consistent production levels help to reduce product costs. Local capacity in South Korea provides a second source of supply for DFC fuel cell stacks, which is valued by some prospective customers and project investors should a supply disruption occur at the FuelCell Energy production facility in Connecticut, USA. Locating final assembly of our DFC power plants closer to end users reduces costs and ensures our products meet the needs of individual markets. POSCO Energy fulfills South Korean energy policy objectives and creates local employment. POSCO Energy is also marketing power plants regionally in Southeast Asia, beginning with markets in Indonesia.

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

Fraunhofer IKTS: We announced a partnership with The Fraunhofer Institute for Ceramic Technologies and Systems IKTS in 2012. The Fraunhofer IKTS with its staff of approximately 400 engineers, scientists and technicians is a world leading institute in the field of advanced ceramics for high tech applications, including fuel cells. The parent organization, Fraunhofer, was founded in 1949 and is Europe's largest application-oriented research organization with an annual research budget of €1.8 billion (approximately $2.4 billion) and more than 18,000 staff, primarily scientists and engineers. Fraunhofer has research centers and representative offices in Europe, USA, Asia and the Middle East, and more than 80 research units, including 60 Fraunhofer Institutes, at different locations in Germany.

Fraunhofer IKTS contributed proprietary carbonate fuel cell technology and patents to FCES. In addition, Fraunhofer IKTS is contributing their expertise and extensive research and development capabilities with fuel cells and materials science as well as sharing their industry and government relationships. Within six months of the initial partnership announcement between FuelCell Energy and Fraunhofer IKTS, the first DFC power plant sale was announced by FCES for the installation at the new Federal Ministry of Education and Research government complex in Berlin, Germany, and was closely followed by the sale of a DFC power plant to the 20 Fenchurch office tower in London, England.

Enbridge, Inc.: We have a market development relationship with Canada-based Enbridge (NYSE: ENB), a leader in energy transportation and distribution for the market development and deployment of the Direct FuelCell - Energy Recovery Generation (DFC-ERG®) power plant. Enbridge is the sole holder of Series 1 convertible preferred shares in the Company's Canadian subsidiary, FCE Ltd.

Abengoa: We announced a partnership in fiscal year 2012 with Spanish-based Abengoa (MCE: ABG), a multi-national company focused on renewable power generation, desalination and recycling. Under the partnership, Abengoa will develop 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. Abengoa is 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. Abengoa also has purchased a DFC module for installation at their headquarters in Seville, Spain.

NRG Energy: We entered into a teaming and co-marketing agreement with NRG Energy (NYSE: NRG) in September 2013. NRG is the largest independent power producer in the U.S. with 47,000 megawatts of generation capacity and more than 2 million retail and commercial customers. The agreement encompasses both direct sales to NRG Energy customers in North America as well as sales to NRG Energy, who will own the fuel cell power plants and sell the power and heat to the end user under a power purchase agreement. We are actively marketing with NRG Energy.

Manufacturing

We design and manufacture the core DFC fuel cell components that are stacked on top of each other to build a fuel cell stack. For our multi-megawatt power plants, four fuel cell stacks are combined to build a fuel cell module. To complete the power plant, the fuel cell module or modules are combined with the BOP. The mechanical balance-of-plant processes the incoming fuel such as natural gas or renewable biogas and includes various fuel handling and processing equipment such as pipes and blowers. The electrical BOP processes the power generated for use by the customer and includes electrical interface equipment such as inverters. The 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. BOP components are shipped directly to a customer's site and are assembled with the fuel cell module into a complete power plant.

Manufacturing Process

As previously stated, our vision is to produce power for prices that are below typical grid prices. Annual global production of approximately 210 MW of DFC plants will provide the needed cost reductions to support this vision. This level of production capacity is either in place in North America and Europe or under construction by our partner, POSCO Energy in South Korea.

North America: We operate a 65,000 square-foot manufacturing facility in Torrington, Connecticut where we produce the DFC cell packages and assemble the fuel cell 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 DFC components are currently manufactured in the USA and then shipped to South Korea for local stacking and conditioning.

We have solid oxide fuel cell assembly capacity at our solid oxide research facility in Calgary, Canada. Capacity is adequate for meeting the expected need of demonstration power plants but is not capable of high volume manufacturing.

Asia: Our South Korean partner, POSCO Energy, is constructing a fuel cell component manufacturing facility in Pohang, South Korea under a licensing agreement to serve the Asian market. The size of the facility will support annual production of 200 megawatts of carbonate fuel cell components. The facility is initially being configured with manufacturing equipment to support 100 MW annual production with production increasing thereafter as demand supports. The facility is expected to begin production in 2015.

Europe: We have a 20,000 square-foot manufacturing facility in Ottobrun, Germany that has the capability to produce up to 20 megawatts per year of sub-megawatt DFC power plants. The facility produced its first fuel cell stack in 2013 for an installation in Berlin, Germany and will increase production as European demand supports.

Localization

An advantage of our business model is the ability to localize certain aspects of BOP procurement and localize portions of the fuel cell stack assembly process as local demand supports. Localization ensures BOP designs meet local power needs, minimizes our inventory investment, reduces shipping costs and offers the potential for partners to create local jobs.

Capacity and Production Increase

Our overall DFC manufacturing process in North America (module manufacturing, final assembly, testing and conditioning) has a production capacity of 100 MW per year, with full utilization under its current configuration. Our total capacity in Torrington was expanded from 90 MW in 2013 as a result of process improvements. The Company intends to continue to pursue further process improvements and invest in automation in order to gain efficiencies, reduces cost and improve product quality. We currently estimate that at our current capacity annual capital spending will be in the $6 to $9 million range to maintain equipment and also meet our efficiency, quality and cost reduction goals.

In conjunction with the 2012 license agreement, POSCO Energy is constructing a cell manufacturing facility in Pohang, South Korea to support the Asian market. Initial capacity will be 100 MW annually and the facility is physically sized for 200 MW annually.
If demand develops beyond the combined capacity of the Company and POSCO Energy, we have the ability to further expand production capacity at our Torrington facility by 100 MW to approximately 200 MW. This expansion would 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 increments. We estimate that an expansion of the Company's Torrington facility to 200 MW would require additional capital investments of $30 to $40 million, although this expansion may occur in stages depending on the level of market demand. We do not have any immediate plans to undertake the expansion of this facility at this time and will expand capacity as backlog supports.

In 2012, POSCO Energy placed a 121.8 MW order with monthly delivery of DFC fuel cell kits through October 2016. This order provides a base level of production for raw materials purchases and other operational considerations for a four-year period and is helping to further reduce costs through manufacturing and purchasing efficiencies and certainty of demand.

The service aspects of our business model provide a recurring and predictable revenue stream for the Company from service agreements. We have committed production for scheduled fuel cell module exchanges under service agreements through the year 2033. The pricing structure of the service agreements incorporates these scheduled fuel cell module exchanges and the committed nature of this production facilitates our production planning.

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 (Third Party Funded 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, distributed hydrogen production, compression and storage, and carbon capture.

The revenue and associated costs from government and third party sponsored research and development is classified as Advanced technologies contract revenues and Cost of advanced technologies contract revenues, respectively, in our consolidated financial statements.

We have worked on technology development 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), Office of Naval Research (ONR), and the National

Aeronautics and Space Administration (NASA). Government funding, principally from the DOE, provided 5 percent, 6 percent, and 6 percent of our revenue for the fiscal years ended 2013, 2012, and 2011, respectively.

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

Solid oxide fuel cell (SOFC) development and commercialization: We are working towards commercialization of solid oxide fuel cell technology to target sub-megawatt commercial applications including high-rise residential buildings, office buildings, and smaller wastewater treatments facilities that do not have the gas production to support a multi-megawatt solution. The potential market opportunity is with sub-megawatt applications for customers that need on-site power generation in either combined heat and power or electric-only configurations. The DFC® product line utilizes carbonate technology and is well-suited for the megawatt class market as the technology and the economics scale very well with greater size. SOFC technology is complementary and leverages our existing knowledge base such as expertise in power plant design, fuel processing and high volume manufacturing

and will leverage our existing installation and service infrastructure. FuelCell Energy is in discussions with several potential global partners to commercialize the SOFC technology.

In December, 2012, the Company acquired Versa Power Systems, Inc. (Versa), a leading global developer of solid oxide fuel cell technology (SOFC). Prior to this action, we owned approximately 39 percent of Versa and partnered with Versa under the U.S. Department of Energy Solid State Energy Conversion Alliance (SECA) coal-based systems program. Versa has research facilities in Littleton, Colorado, USA and Calgary, Canada with 34 employees. Both facilities are leased. Research and development is being closely coordinated with existing FuelCell Energy research and development resources in Danbury, Connecticut, USA.

Versa is a supplier to The Boeing Co. under a U.S. Defense Advanced Research Projects Agency (DARPA) program to develop and fly a very long endurance unmanned aircraft. Versa's specialized solid state SOFC technology is paired with solar equipment to provide an on-board source of power for propulsion and communication equipment.

We have been a prime contractor in the DOE's Solid State Energy Conversion Alliance (“SECA”) since 2003 and are currently working on an 18 month award that commenced in October 2013 to demonstrate a sub-megawatt solid oxide fuel cell power plant configured for combined heat & power (CHP) output and connected to the electric grid at our Danbury, Connecticut facility.

Development is continuing under a $3.8 million contract by the U.S. Navy Office of Naval Research (ONR) entered into in July 2012 to develop and test a Hybrid SOFC-Battery power system for large displacement undersea vehicle propulsion. The objective of the project is to develop a refuelable power system, with high energy density, that is suitable for undertaking long duration underwater missions of unmanned submersibles. The Hybrid SOFC-Battery system will be capable of generating 1,800 kilowatt hours of electricity during a 70 day mission with no exhaust discharged outside of the vehicle at any time. It will use liquid fuel and be self-contained with no reliance on external air.

A solid oxide fuel cell power plant demonstration is planned for early 2014 at a dairy farm within the Sacramento Municipal Utility District (SMUD) in California, USA utilizing renewable biogas from the anaerobic digestion process to generate electricity and heat. SMUD will facilitate the installation and operation of the SOFC power system. Many agricultural operations generate more biogas and electrical generation potential than they can use for their daily operations, which is why the ability to interconnect to the electric grid is an important part of understanding the future market potential and ability to support sustainability of farms and agricultural industries.

Hydrogen production, compression and storage - On-site or distributed hydrogen generation represents an attractive market for the DFC technology. 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 tri-generation DFC300-H2 power plant has been operating for over two years 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 significant 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_2) 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_2. We are currently in the second phase of a DOE program to evaluate the use of Direct FuelCell technology to efficiently and cost effectively separate CO_2 from the emissions of existing coal fired power plants and industrial flue gases.

Research and Development (Company Funded Research and Development)
In addition to research and development performed under research contracts, 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. Initiatives include increasing the power output of the fuel cell stacks to 375 kW from 350 kW currently, and extending the stack life to seven years from five years currently. Greater power output and improved longevity will lead to improved gross margin profitability on a per unit basis for each power plant sold and improved profitability of service contracts, which will support expanding gross margins for the Company. Company-funded research and development is included in research and development expenses (operating expenses) in our consolidated financial statements.

The total research and development expenditures in the consolidated statement of operations, including third party and Company funded, are as follows:

	Years Ended October 31,		
	2013	2012	2011
Cost of advanced technologies contract revenues	$13,864	$7,237	$7,830
Research and development expenses	15,717	14,354	16,768
Total research and development	$29,581	$21,591	$24,598

Competition

The electric generation market is competitive with continually evolving participants. Our DFC power plants compete in the marketplace for stationary 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 stationary PEM fuel cells (Ballard Power Systems), portable PEM fuel cells (Ballard Power Systems, Plug Power, ReliOn, and increasing activity by numerous automotive companies) stationary phosphoric acid fuel cells (ClearEdge Power), stationary solid oxide fuel cells (Delphi, Rolls Royce, Bloom Energy, and Acumentrics) and portable solid oxide fuel cells (Parker Hannifin). Each of these competitors with stationary fuel cell applications 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 and Panasonic is involved with PEM fuel cells for micro-CHP applications. In South Korea, LG Electronics is engaged in SOFC development with its partner, Rolls Royce. In the United Kingdom, AFC Energy is engaged in alkaline fuel cell development. In Europe and Australia, Ceramic Fuel Cells is engaged in PEM fuel cell development for micro-CHP applications.

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. Competition on larger MW projects may also come from gas turbine companies like General Electric, Solar Turbines and Kawasaki.

We also compete against the electric grid, which is readily available to prospective customers. The electric grid is supplied by large generation power plants including coal, gas and nuclear, with transmission lines used to transport the electricity to the point of use.

Our stationary fuel cell power plants generally do not directly compete against solar and wind, but can complement their intermittency with the continuous baseload power output of the fuel cells. Solar and wind require specific geographies and weather profiles, as well as up to ten times the land requirements of our DFC plants.

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 (SA) for Direct FuelCell (DFC) power plants ranging from one to 20 years. Our standard SA 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 maintenance and stack replacement costs.

While the electrical and mechanical 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.

Under the typical provisions of the SAs, 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 and/or pay performance penalties.

Government Regulation

Our Company and its products are subject to various federal, provincial, 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. Negligible emissions of SOx and NOx from our power plants are substantially lower than conventional combustion-based generating stations, and are far below 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_2 in per kW hour amounts that are 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 in the USA 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.

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 86 current U.S. patents and 63 international patents covering our fuel cell technology (in certain cases covering the same technology in multiple jurisdictions). 82 of our U.S. patents relate to our Direct FuelCell technology, one patent relates to SOFC technology and three patents relate to PEM fuel cell technology. We also have submitted 20 U.S. and 77 international patent applications.

Our patents will expire between 2014 and 2031, and the current average remaining life of our patents is approximately 10.6 years. During 2013, 12 new U.S patents were issued or allowed and no U.S. and 10 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 18 invention disclosures in process with our patent counsel that may result in additional patent applications.

In addition, our subsidiary, Versa Power Systems, Inc., has 28 current U.S. patents and 111 international patents covering their SOFC technology (in certain cases covering the same technology in multiple jurisdictions). Versa Power Systems, Inc. also has submitted nine U.S. and 87 international 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 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.

In addition, FuelCell Energy Solutions, GmbH has license rights to use FuelCell Energy's carbonate fuel cell technology as well as 10 U.S. and 138 international patents for carbonate fuel cell technology licensed from its co-owner, Fraunhofer IKTS.

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, 2013, 2012 and 2011, our top five customers, POSCO Energy (which is a related party and owns approximately16 percent of the outstanding common shares of the Company), Dominion Bridgeport Fuel Cell, LLC, Department of Energy, BioFuels Fuel Cells, LLC and UTS BioEnergy, LLC, accounted for 88 percent, 85 percent and 66 percent, respectively, of our total annual consolidated revenue. Revenue percentage by major customer for the last three fiscal years is as follows:

	Years Ended October 31,					
	2013		2012		2011	
POSCO Energy	54	%	76	%	44	%
Dominion Bridgeport Fuel Cell, LLC	29	%	—	%	—	%
Department of Energy	5	%	7	%	—	%
BioFuels Fuel Cells, LLC	—	%	—	%	12	%
UTS BioEnergy, LLC	—	%	2	%	10	%
Total	88	%	85	%	66	%

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 backlog was $170.1 million at October 31, 2013 compared to $288.1 million at October 31, 2012. Product backlog in megawatts totaled 107.3 MW at October 31, 2013 compared to 150.7 MW at October 31, 2012.
- Service backlog was $166.8 million at October 31, 2013 compared to $78.5 million at October 31, 2012. The service contract for the Bridgeport fuel cell park project accounted for a significant portion of the year-over-year growth.

Although backlog reflects business that is considered firm, cancellations or scope adjustments may occur and will be reflected in our backlog when known.

- For advanced technologies contracts, we include the total contract value including any unfunded portion of the total contract value in backlog. Advanced technology contract backlog totaled $18.5 million as of October 31, 2013 compared to $12.2 million as of October 31, 2012. The unfunded portion of our advanced technology contracts amounted to $5.7 million and $4.7 million as of October 31, 2013 and 2012, 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, 2013 we had contracts for power plants totaling 1.5 MW under PPAs ranging from four to six 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, 2013, we had 610 full-time employees, of whom 298 were located at the Torrington, Connecticut manufacturing plant, 267 were located at the Danbury, Connecticut facility or various field offices, and 45 were located at our foreign locations. In addition, as of October 31, 2013, the Company had 34 temporary workers, 18 located at the Torrington manufacturing plant and 16 located at the Danbury facility. 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 .

Executive Officers of the Registrant

NAME	AGE	PRINCIPAL OCCUPATION
Arthur A. Bottone President and Chief Executive Officer	53	Mr. Bottone joined FuelCell Energy in February 2010 as Senior Vice President and Chief Commercial Officer and was promoted to President and Chief Executive Officer in February 2011. Mr. Bottone's focus is to accelerate and diversify global revenue growth to achieve profitability by capitalizing on heightened global demand for clean and renewable energy. Mr. Bottone has broad experience in the power generation field including traditional central generation and alternative energy. Prior to joining FuelCell Energy, Mr. Bottone spent 25 years at Ingersoll Rand, a diversified global industrial company, including as President of the Energy Systems business. Mr. Bottone's qualifications include extensive global business development, technology commercialization, power generation project development as well as acquisition and integration experience. 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.
Michael Bishop Senior Vice President, Chief Financial Officer, Treasurer and Corporate Secretary	45	Mr. Bishop was appointed Vice President, Chief Financial Officer, Corporate Secretary, and Treasurer in June 2011. He has nearly 20 years of experience in financial operations and management with public high growth technology companies with a focus on capital raising, project finance, debt/treasury management, acquisition integration, strategic planning, internal controls, and organizational development. Since joining the Company in 2003, Mr. Bishop has held a succession of financial leadership roles including Assistant Controller, Corporate Controller and Vice President and Controller. Prior to joining FuelCell Energy, 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 also served four years in the United States Marine Corps. Mr. Bishop received a Bachelor of Science in Accounting from Boston University in 1993 and a MBA from the University of Connecticut in 1999.
Anthony F. Rauseo Senior Vice President, Chief Operating Officer	54	Mr. Rauseo was appointed 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 is an organizational leader with a strong record of achievement in product development, business development, manufacturing, operations, and customer support. 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 of Science in Mechanical Engineering from Rutgers University in 1983 and received a Masters of Science in Mechanical Engineering from Rensselaer Polytechnic Institute in 1987.

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 flows 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 deliver improved margins.

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 and fuel prices may impact sales of our products and services 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 and services, 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 state renewable portfolio standard programs). Many of these government incentives expire, phase out over time, exhaust the allocated funding, or require renewal by the applicable authority. In addition, these incentive programs could be challenged by utility companies, or for other reasons found to be unconstitutional, and/or could be reduced or discontinued for other reasons. The reduction, elimination, or expiration of government subsidies and economic incentives may result in the diminished economic competitiveness of our power plants to our customers and could materially and adversely affect the growth of alternative energy technologies, including our fuel cells, as well as our future operating results.

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

Financial market volatility can affect both the debt, equity and project finance 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 can require long lead times between application design, 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 the Company to finance working capital or our customers to provide down payments and to pay for our products. Financial market issues may delay, cancel or restrict the construction budgets and funds available to the Company or our customers for the deployment 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 increased in the return required by investors in relation to the risk of such projects.
- If we, 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 product sales 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 contracts based on this cost analysis is then applied to the total customer contract values 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 including future stack replacements. 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, performance penalties, maintenance and stack replacement costs in excess of our estimates and losses on service contracts.

The Company has one customer who purchases power under a power purchase agreement (“PPA”), whereby the customer agrees to purchase power from our fuel cell power plants at negotiated rates. Electricity rates are generally a function of the customer’s current and future electricity pricing available from the grid. Should electricity rates decrease or operating costs increase from our original estimates, our results of operations could be negatively impacted. We are not required to produce minimum amounts of power under this PPA agreement. We provide termination rights by giving written notice to the customer, subject to certain exit costs.

We extend product warranties, which could affect our operating results.

We warranty our products for a specific period of time against manufacturing or performance defects. 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 three 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 sub-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.

We have limited field operating experience on our products, and despite experience gained from our growing installed base and testing performed 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.), phosphoric acid fuel cells (ClearEdge Power) and solid oxide fuel cells (LG and Bloom Energy). 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.

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 Energy currently owns approximately 16 percent of our outstanding common stock, which could make it difficult for a third party to acquire our common stock. POSCO Energy 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 100 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 including availability and output expectations and total cost of ownership;
- the future costs of natural gas and other fuels used by our fuel cell products;
- customer reluctance to try a new product;
- 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 offering 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. This includes POSCO Energy, which is a related party and owns approximately 16 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 canceled if we fail to meet certain product specifications or materially breach the agreements, 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.

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. Under current regulations, patents resulting from research funded by government agencies other than the DOE are owned by us.

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.

We now qualify as a "Large Business", which could adversely affect our rights to own future patents under DOE-funded contracts.

This year, we qualify as a "large business" under DOE contracts. This allows us to own the patents that we develop under new DOE contracts if we obtain a waiver from DOE. A "large business" under applicable government regulations generally consists of more than 500 employees averaged over a one year period. We will no longer own future patents we develop under new contracts, grants or cooperative agreements funded by the DOE, 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.

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, 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.

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 whether we will be able to maintain long-term supply relationships with our critical suppliers, or secure new long-term supply relationships, 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. In addition, we have licensed much of our intellectual property to carefully selected third parties, and we depend on those third parties to also protect our intellectual property rights. As of October 31, 2013, we had 86 current U.S. patents and 63 international patents covering our fuel cell technology. The U.S. patents have an average remaining life of approximately 10.6 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.

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.

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 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, follow third-party certification protocols, codes and standards, and do not store natural gas or hydrogen at our power plants, 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.

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.

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.

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 Item 7). 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, loss reserves, 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.

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

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

Provisions of Delaware and Connecticut law and of our charter and by-laws and our outstanding securities 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. In addition, certain provision of our 8.0% Senior Unsecured Convertible Notes, our Series 1 Preferred Shares and our Series B preferred stock could make it more difficult or more expensive for a third party to acquire us. 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.

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, 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.

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The rights of the Series 1 preferred shares and Series B preferred stock and the 8.0% Senior Unsecured Convertible Notes could negatively impact our cash flows and could dilute the ownership interest of our stockholders.

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.

The provisions of the Series 1 Preferred Shares require that FCE Ltd. make annual dividend payments totaling Cdn. $1,250,000, including (i) annual dividend payments of Cdn. $500,000 and (ii) annual return of capital payments of Cdn. $750,000. These payments 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 $1.34 (our common stock closing price on October 31, 2013) and an exchange rate of Cdn. $1.05 to U.S. $1.00 at the time of conversion, we would be required to issue approximately 3,337,400 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.

The terms of the 8.0% Senior Unsecured Convertible Notes provide that we have the option of making interest and repurchase payments either in cash or in common shares. To the extent that we determine to use shares for these purposes, the shares will be valued at a discount from their then-current market value. To the extent we issue common stock upon conversion or repurchase of, or payment of interest upon, the 8.0% Notes, the ownership interests of existing stockholders will be diluted. Any sales in the public market of the common stock issuable with respect to the 8.0% Notes could adversely affect prevailing market prices of our common stock. In addition, the existence of these securities may encourage short selling by market participants because the conversion of the 8.0% Notes could depress the price of our common stock.

Item 1B. UNRESOLVED STAFF COMMENTS

None

Item 2. PROPERTIES

The following is a summary of our offices and locations:

Location	Business Use	Square Footage	Lease Expiration Dates
Danbury, Connecticut	Corporate Headquarters, Research and Development, Sales, Marketing, Purchasing and Administration	72,000	Company owned
Torrington, Connecticut	Manufacturing and Administrative	65,000	December-2015
Danbury, Connecticut	Manufacturing and Operations	38,000	October-2014
Ottobrunn, Germany	Manufacturing and Administrative	20,000	June-2014
Dresden, Germany	Central European Office, Sales, Marketing, Purchasing and Administrative	420	February-2015
Calgary, Canada	Research and Development	32,220	January-2017
Littleton, Colorado	Research and Development	18,464	August-2018

Item 3. LEGAL PROCEEDINGS

None

PART II

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

FuelCell Common Stock

Our common stock has been publicly traded since June 25, 1992. From September 21, 1994 through February 25, 1997, it was quoted on the NASDAQ National Market, and from February 26, 1997 through June 6, 2000 it was traded on the American Stock Exchange. Our common stock 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.

	Common Stock Price	
	High	Low
First quarter (through December 31, 2013)	$1.86	$1.32
Year Ended October 31, 2013		
First Quarter	$1.30	$0.83
Second Quarter	$1.15	$0.84
Third Quarter	$1.64	$1.00
Fourth Quarter	$1.57	$1.12
Year Ended October 31, 2012		
First Quarter	$1.12	$0.83
Second Quarter	$1.95	$0.97
Third Quarter	$1.39	$0.92
Fourth Quarter	$1.10	$0.85

On December 31, 2013, the closing price of our common stock on the Nasdaq Global Market was $1.41 per share. As of December 31, 2013, there were 528 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.

Unregistered Sales of Equity Securities

On December 20, 2012, the Company issued 3,526,764 shares of common stock to four shareholders in an offering not registered under the Securities Act of 1933, as amended, in reliance upon Section 4(2) thereof in consideration for shares of Versa Power Systems, Inc.

Warrant Issuance

On September 4, 2013, the Company entered into a co-marketing agreement with NRG Energy ("NRG") for the marketing and sales of the Company's power plants. The terms of the agreement include the issuance of warrants to NRG that permit NRG to purchase up to 5 million shares of the Company's common stock at predetermined prices based on attaining minimum sales goals. There are three tranches of warrants with varying strike prices, varying minimum levels of qualifying orders, and different vesting and expiration dates. The weighted average strike price for all 5 million warrants is $2.18. The qualifying order vesting dates range from March 2014 through September 2015 and the expiration dates range from February 2017 through August 2018. No warrants were vested as of October 31, 2013.

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, 2013 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") and a customized 17 company peer group, consisting of the same companies used for the 2014 comparative management compensation analysis for the 2014 proxy. It assumes $100 invested on November 1, 2009 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 provisions of the Series 1 Preferred Shares of FCE Ltd. as previously described. Enbridge is 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. 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. 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.

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 $1.34 (our common stock closing price on October 31, 2013) and an exchange rate of Cdn.$1.05 to U.S. $1.00 (exchange rate on October 31, 2013) at the time of conversion, we would be required to issue approximately 3,337,400 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.

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, 2013 and 2012, 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, 2013, 2012 and 2011. There were no cumulative unpaid dividends at October 31, 2013 and 2012.

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, 2013 and 2012, the Series B Preferred Stock had a Liquidation Preference of $64.0 million.

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, 2013) 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.

8.0% Senior Unsecured Convertible Notes

On June 25, 2013, the Company closed an offering of $38.0 million in aggregate principal amount of 8.0% Senior Unsecured Convertible Notes ("Notes"). The Notes and the shares of our common stock issuable upon conversion of the Notes are covered by a registration rights agreement. The following is a summary of certain provisions of our Notes.

Maturity

The Notes will mature on June 15, 2018, unless earlier converted or repurchased by us at the holders' option

Ranking

The Notes are senior unsecured obligations and rank equal in right of payment with all of our future senior unsecured indebtedness. The Notes effectively subordinated to our secured indebtedness to the extent of the value of the related collateral, any senior secured indebtedness that we may incur in the future, and structurally subordinated to senior secured indebtedness and other liabilities of our subsidiaries.

Neither we nor any of our subsidiaries are subject to any financial covenants under the indenture. Neither we nor any of our subsidiaries are restricted under the indenture from paying dividends or issuing or repurchasing our securities.

Interest

The Notes bear interest at a rate of 8% per annum. Interest accrued from June 25, 2013 or from the most recent date to which interest has been paid or duly provided for. We pay interest semi-annually, in arrears, in shares of our common stock, provided that certain conditions are met, or, at our option, cash on June 15 and December 15 of each year, commencing on December 15, 2013, to holders of record at 5:00 p.m., New York City time, on the preceding May 31 and November 30, respectively. Upon the occurrence of any event of default, until all such events of default have been cured, the notes will bear a default interest rate of 12% per annum.

We may pay interest in cash or in shares of our common stock which will be based upon a price equal to a 7.5% discount to the average volume weighted average price (VWAP) for our common stock for the ten trading days prior to the applicable Interest Date. Interest will be calculated on the basis of a 360-day year consisting of twelve 30-day months. If a payment date is not a business day, payment will be made on the next succeeding business day, and no additional interest will accrue thereon.

Interest and Make Whole Payment.

If some or all of the Notes are converted at the holders’ option prior to June 15, 2018, in addition to the consideration issuable upon conversion the holder will receive a number of additional shares of our common stock (the “Voluntary Conversion Make Whole Payment”) for the notes being converted or, at our option, cash. The Voluntary Conversion Make Whole Payment will be a number of shares of our common stock or cash equal to the remaining unpaid interest on such portion of such converted notes, up to a maximum of $240.00 per $1,000 principal amount of notes plus any accrued interest to such date (“Voluntary Conversion) (collectively, the “Make Whole Payment Amount”). If the Company pays the Make Whole Payment Amount in shares, the shares will be valued at a 7.5% discount to the average VWAP for our common stock for the ten trading days ending on and including the trading day immediately preceding the date of conversion.

Conversion Rights

Holders may convert their notes into shares of our common stock at any time prior to the close of business on the business day immediately preceding the maturity date based on an initial conversion rate of 645.1613 shares of common stock per $1,000 principal amount of notes (equivalent to an initial conversion price of approximately $1.55 per share), unless earlier repurchased by us, at the holders’ option.

Payment at Maturity

On the maturity date, each holder will be entitled to receive on such date $1,000 in cash for each $1,000 in principal amount of notes, together with accrued and unpaid interest to, but not including, the maturity date.

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Repurchase and Cancellation

We may, to the extent permitted by law, repurchase any notes in the open market or by tender offer at any price or by private agreement. Any notes repurchased by us may, at our option, be surrendered to the trustee for cancellation, but may not be reissued or resold by us. Any notes surrendered for cancellation may not be reissued or resold and will be promptly canceled.

Redemption

We do not have the option to redeem the Notes. However, holders of the Notes can require us to redeem all or part of their Notes upon a change of control at an amount equal to 110% of the amount being redeemed subject to certain adjustments which are further described in the indenture.

Additional Notes

We may, without the consent of the holders of the notes, increase the principal amount of the notes by issuing additional notes in the future on the same terms and conditions, except for any differences in the issue price and interest accrued prior to the issue date of the additional notes; provided that such differences do not cause the additional notes to constitute a different class of securities than the notes for U.S. federal income tax purposes; and provided further that the additional notes have the same CUSIP number as the notes offered hereby.

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, 2013 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)

	2013	2012	2011	2010	2009
Revenues:					
Product sales	$145,071	$94,950	$103,007	$50,192	$66,178
Service agreements and license revenues	28,141	18,183	12,097	9,034	7,626
Advanced technology contracts	14,446	7,470	7,466	10,551	14,212
Total revenues	187,658	120,603	122,570	69,777	88,016
Costs and expenses:					
Cost of product sales	136,989	93,876	96,525	54,433	84,714
Cost of service agreement and license revenues	29,683	19,045	30,825	23,627	22,319
Cost of advanced technology contracts	13,864	7,237	7,830	10,370	10,994
Total cost of revenues	180,536	120,158	135,180	88,430	118,027
Gross profit (loss)	7,122	445	(12,610)	(18,653)	(30,011)
Operating expenses:					
Administrative and selling expenses	21,218	18,220	16,299	17,150	17,194
Research and development costs	15,717	14,354	16,768	18,562	19,160
Total costs and expenses	36,935	32,574	33,067	35,712	36,354
Loss from operations	(29,813)	(32,129)	(45,677)	(54,365)	(66,365)
Interest expense	(3,973)	(2,304)	(2,578)	(127)	(265)
Income (loss) from equity investments	46	(645)	58	(730)	(812)
Impairment of equity investment	—	(3,602)	—	—	—
License fee and royalty income	—	1,599	1,718	1,561	146
Other income (expense), net	(1,208)	1,244	1,047	(254)	714
Redeemable minority interest	—	—	(525)	(2,367)	(2,092)
Provision for income tax	(371)	(69)	(17)	(44)	—
Net loss	(35,319)	(35,906)	(45,974)	(56,326)	(68,674)
Net loss attributable to noncontrolling interest	961	411	261	663	—
Net loss attributable to FuelCell Energy, Inc.	(34,358)	(35,495)	(45,713)	(55,663)	(68,674)
Adjustment for modification of redeemable preferred stock of subsidiary	—	—	(8,987)	—	—
Preferred stock dividends	(3,200)	(3,201)	(3,200)	(3,201)	(3,208)
Net loss to common shareholders	$(37,558)	$(38,696)	$(57,900)	$(58,864)	$(71,882)
Net loss to common shareholders					
Basic	$(0.20)	$(0.23)	$(0.47)	$(0.63)	$(0.99)
Diluted	$(0.20)	$(0.23)	$(0.47)	$(0.63)	$(0.99)

Weighted average shares outstanding					
Basic	186,525	165,471	124,498	93,926	72,393
Diluted	186,525	165,471	124,498	93,926	72,393

Consolidated Balance Sheet Data:
(Amounts presented in thousands, except for per share amounts)

	2013	2012	2011	2010	2009
Cash and cash equivalents (1)	$77,699	$57,514	$51,415	$20,467	$57,823
Short-term investments (U.S. treasury securities)	—	—	12,016	25,019	7,004
Working capital	83,066	55,729	48,171	48,171	77,793
Total current assets	189,329	140,626	102,209	102,209	119,679
Long-term investments (U.S. treasury securities)	—	—	—	9,071	—
Total assets	237,636	191,485	183,630	150,529	162,688
Total current liabilities	106,263	84,897	114,165	54,038	41,886
Total non-current liabilities	84,708	32,603	23,983	12,098	14,534
Redeemable minority interest	—	—	—	16,849	14,976
Redeemable preferred stock	59,857	59,857	59,857	59,857	59,950
Total equity (deficit)	(13,192)	14,128	(14,375)	7,687	31,342
Book value per share (2)	$(0.07)	$0.07	$(0.10)	$0.07	$0.37

(1) Includes short-term and long-term restricted cash and cash equivalents.
(2) Calculated as total (deficit) equity divided by common shares issued and outstanding as of the balance sheet date.

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

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, install, operate and service ultra-clean, efficient and reliable stationary fuel cell power plants. 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 while improving the resiliency of the electric grid, 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 two billion kilowatt hours (kWh) of electricity, which is equivalent to powering more than 181,000 average size U.S. homes for one year. Our installed base and growing backlog exceeds 300 megawatts (MW).

Our diverse and growing customer base includes major 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 and Canada. We service the power plants for virtually every customer we have globally under 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 who provide on-site service and maintenance.

Recent Developments

Market Update

The Company has a strong sales pipeline in both North America and Europe totaling over 310 MW as of October 31, 2013 valued at over $1.2 billion. Significant project development activities occurred in fiscal 2013 and we recently received regulatory approvals on several projects. As a result, we anticipate closing over 30 MW of new orders in the Northeast and California in the first half of 2014. Production levels, the Company's order closure expectations and the need to be able to execute on multi-plant projects quickly, are coordinated closely. In addition to our existing pipeline, we are actively developing opportunities directly and through our business partners.

Multiple utilities in four U.S. states have recently issued over one gigawatt of renewable power requests for proposals (RFP's) that all include fuel cells. The Company is actively bidding these solicitations. Utility-scale adoption is accelerating in South Korea with recent announcements by our partner POSCO Energy including a 20 megawatt and a 40 megawatt project. POSCO Energy's total order pipeline exceeded 300 MW as of October 31, 2013. These recent actions in North America and Asia illustrate both the market potential as well as the growing awareness of the value

of clean distributed generation.

In September 2013, we announced a teaming and co-marketing agreement with NRG Energy, the largest independent power producer in North America. This agreement leverages our resources and we believe it will lead to meaningful order flow. The agreement includes a power purchase agreement model for customers that prefer a pay-as-you-go option whereby NRG Energy

will own the power plant and sell the ultra-clean power and high quality heat to the customer. The agreement adds an important new sales channel for the marketing and sale of FuelCell Energy power plants. NRG will market the power plants to its customer base and FuelCell Energy is expected to install, operate and maintain each power plant.

Operations Update

The Company began 2013 with North American production levels at an annual run-rate of 56 MW. The production rate was increased to 70 MW during the year and the Company expanded total capacity by about 11 percent through process improvements to 100 MW annually.

The Company maintained an annual production run-rate at the Torrington, Connecticut production facility of approximately 70 MW during the fourth quarter of 2013, producing 17.5 MW of cell components for fuel cell kits and fuel cell power plants.

During 2013, the Company built the 14.0 MW Bridgeport fuel cell park with Dominion (NYSE: D), as project owner. The project was completed on schedule with Dominion's final acceptance on December 20, 2013 and power is being delivered to the electric grid under a 15 year energy purchase agreement with a Connecticut electric utility. The installation consists of five fuel cell power plants and an organic rankine cycle turbine for added output and further efficiency gains, with the power output adequate to power approximately 15,000 average size U.S. homes. The associated service contract, valued at approximately $69 million over the 15 year project life, began with Dominion's acceptance.

All 21 DFC3000® power plants have been installed at the 59 MW Gyeonggi Green Energy fuel cell park in Hwasung City, South Korea by POSCO Energy. The project is on schedule and delivering power to the electric grid and steam to a district heating system. The fuel cell park was constructed in only twelve months demonstrated the ability to add a significant level of renewable power near where the power is used in a very short period of time. We believe that the facility is a global showcase for clean baseload electric grid support from fuel cell power plants and a model for other regions of the world.

Advanced Technology Update

The Company continues to develop its solid oxide fuel cell (SOFC) technology and distributed hydrogen generation capabilities, utilizing global partners to build critical mass and to develop technology platforms suitable for markets around the world. During the fourth quarter of 2013, the Company entered into the following:

- A $6.4 million cost shared cooperative agreement with the U.S. Department of Energy (DOE) to demonstrate a sub-megawatt SOFC plant configured for combined heat & power (CHP) output that is connected to the electric grid.
- A multi-phase two year agreement to supply a demonstration solid-state electrochemical hydrogen separation (EHS) unit to a global chemical company for high efficiency separation of hydrogen from natural gas. Under the first phase, valued at approximately $1.1 million, the Company will deliver a remotely monitored CE-compliant EHS system. Successful completion of the first phase is expected to lead to subsequent funding to increase the size and scale of the system for the targeted industrial market. The technology provides a unique way to separate hydrogen from natural gas or renewable biogas in a process with relatively low energy consumption and without the need for pressurization or moving parts, leading to lower operating costs than current hydrogen separation technologies.
- A DOE supported project to convert agricultural waste into renewable power utilizing an SOFC power plant at a dairy farm in California. The Sacramento Municipal Utility District (SMUD) will facilitate the installation and operation of the SOFC power system.

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, 2013 and 2012

Revenues and Costs of revenues

Our revenues and cost of revenues for the years ended October 31, 2013 and 2012 were as follows:

	Years Ended October 31,		Change	
(dollars in thousands)	2013	2012	$	%
Total revenues	$ 187,658	$ 120,603	$ 67,055	56
Total costs of revenues	$ 180,536	$ 120,158	$ 60,378	50
Gross profit	$ 7,122	$ 445	$ 6,677	1,500
Gross margin	3.8 %	0.4 %		

Total revenues for the fiscal year ended October 31 2013 increased $67.1 million, or 56 percent, to $187.7 million from $120.6 million during the same period last year. Total cost of revenues for the fiscal year ended October 31, 2013 increased by $60.4 million, or 50 percent, to $180.5 million from $120.2 million during the same period last year. A discussion of the changes in product sales and service agreement revenues and advanced technologies contract revenues follows.

Refer to Critical Accounting Policies and Estimates for more information on revenue and cost of revenue classifications.

Product sales and service and license revenues

Our product sales and service and license revenues and cost of revenues for the fiscal years ended October 31, 2013 and 2012 were as follows:

	Years Ended October 31,		Change	
(dollars in thousands)	2013	2012	$	%
Revenues:				
Product sales	$ 145,071	$ 94,950	$ 50,121	53
Service agreements and license revenues	28,141	18,183	9,958	55
Total	$ 173,212	$ 113,133	$ 60,079	53
Costs of Revenues:				
Product sales	$ 136,989	$ 93,876	$ 43,113	46
Service agreements and license revenues	29,683	19,045	10,638	56
Total	$ 166,672	$ 112,921	$ 53,751	48
Gross profit (loss):				
Gross profit from product sales	$ 8,082	$ 1,074	$ 7,008	653
Gross loss from service agreements and license revenues	(1,542)	(862)	(680)	79
Total	$ 6,540	$ 212	$ 6,328	2,985
Product sales gross margin	5.6 %	1.1 %		
Service agreement and license revenues gross margin	(5.5)%	(4.7)%		

Product sales and service agreements and license revenues increased $60.1 million, or 53 percent, for the fiscal year ended October 31, 2013 to $173.2 million compared to $113.1 million for the prior year period. The increase is primarily due to revenue recognition for the Bridgeport fuel cell park project of approximately $55.1 million, license and royalty income of $4.1 million and service revenue related to a new Master Service Agreement with POSCO Energy entered into during the fourth quarter. Costs incurred under the Master Service Agreement during the fourth quarter of fiscal year 2013 of $10.1 million resulted in associated revenue recognized of $10.2 million. Such costs primarily related to the provision of fuel cell stacks to POSCO Energy upon execution of the agreement to service the installations under the ongoing service contract. Cost of product sales and service and license revenues increased $53.8 million, or 48 percent for the fiscal year ended October 31, 2013 to $166.7 million compared to $112.9 million in the prior year. The increase is a result of costs associated with the Bridgeport fuel cell park project and costs associated with the Master Service Agreement with POSCO Energy. Also, the Company incurred warranty and after-market costs during fiscal year 2013 as a result of a select number of fuel cell stacks requiring repair. This issue has been thoroughly investigated, manufacturing process changes implemented, and field repairs undertaken to support the limited number of customers impacted.

Gross profit for product sales and service agreements and license revenues is $6.5 million, compared to a gross profit of $0.2 million for the fiscal year ended October 31, 2012.

Product Sales and Cost of Sales

Product sales for the fiscal year ended October 31, 2013 included $117.1 million from the construction of power plants and sale of fuel cell kits and $28.0 million of revenue primarily related to power plant component sales and site engineering and construction services relating to the Bridgeport fuel cell park project. This is compared to product sales for the fiscal year ended October 31, 2012 which included $77.0 million from the construction of power plants and sale of fuel cell kits and $18.0 million of revenue primarily from power plant component sales and site engineering and construction services.

Cost of product sales increased $43.1 million for the fiscal year ended October 31, 2013 to $137.0 million, compared to $93.9 million in the same prior year period. Gross profit increased $7.0 million to a gross profit of $8.1 million for the fiscal year ended October 31, 2013 compared to a gross profit of $1.1 million for the fiscal year ended October 31,

2012. The increase was due to improved overhead absorption from higher production levels combined with a sales mix that included complete power plants along with fuel cell kits, partially offset by additional costs incurred in the first quarter

of fiscal year ended October 31, 2013 due to a select number of fuel cell stacks requiring repair and costs related to the increase in production.

The annual production run-rate was increased to 70 MW as of May 1, 2013 to meet demand, and maintained for the remainder of the fiscal year. Higher production volumes supported increased quarterly revenue in fiscal year ended October 31, 2013 and we believe will lead to expanding margins from improved absorption of fixed overhead costs and broadening of the revenue mix to include complete power plant sales in North America and Europe.

Service Agreements and License Revenues and Cost of Revenues

Revenues for the fiscal year ended October 31, 2013 from service agreements and license fee and royalty agreements totaled $28.1 million, compared to $18.2 million the prior fiscal year. Service agreement revenue increased year over year due to the recognition of service revenue related to a new Master Service Agreement with POSCO Energy entered into during the fourth quarter of fiscal year ended October 31, 2013. Costs incurred under the Master Service Agreement during the fourth quarter of fiscal year 2013 of $10.1 million resulted in associated revenue recognized of $10.2 million. Such costs primarily related to the provision of fuel cell stacks to POSCO Energy upon execution of the agreement to service the installations under the ongoing service contract. There was minimal revenue recorded relating to scheduled module replacement compared to approximately $3.0 million of service revenue recognized during fiscal year 2012 from scheduled module exchanges. Service revenue from scheduled module exchanges is recognized at the time of the module exchange activity whereas the remaining portion of service revenue from service agreements is recognized ratably over the life of the service contract. Also, license and royalty income was included within revenues beginning in the first quarter of fiscal year 2013. This change is a result of the new license agreement entered into on October 31, 2012 for our core technology and harmonization of the agreements to reflect fees and royalties for the manufacture of complete DFC Power Plants. Classification as revenue is reflective of our Asia market partnership and royalty based strategy and this business activity has become a significant component of non-product revenue and is expected to continue to grow over time. Service agreements and license cost of revenues increased to $29.7 million from $19.0 million for the prior year period primarily as a result of the costs recorded relating to the Master Service Agreement with POSCO Energy. The gross loss on service agreements and license agreements increased to $1.5 million for the fiscal year ended October 31, 2013, compared to $0.9 million for the comparable prior year period. The increase in service and license agreement negative margins is primarily due to costs associated with unplanned module exchanges partially offset by the inclusion of license and royalty income in revenues beginning in fiscal year 2013. The historical loss on service agreements has been due to high maintenance, stack replacement and other costs on older and sub-MW product designs. As profitable megawatt-class service agreements are executed and as early generation sub-megawatt products are retired or become a smaller overall percentage of the installed fleet, we expect the margins on service agreements to increase.

Cost of product sales includes costs to design, engineer, 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 scheduled module replacements assembly and conditioning equipment sold to POSCO Energy, warranty expense, liquidated damages and inventory excess and obsolescence charges. Cost of service agreements include maintenance and stack replacement costs to service power plants for customers with service agreements and operating costs for our units under PPA's.

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.

Advanced technologies contracts

Advanced technologies contracts revenue and related costs for years ended October 31, 2013 and 2012 were as follows:

	Years Ended October 31,		Change	
(dollars in thousands)	2013	2012	$	%
Advanced technologies contracts	$ 14,446	$ 7,470	$6,976	93

Cost of advanced technologies contracts	13,864	7,237	6,627	92
Gross profit	$ 582	$ 233	$349	150

Advanced technologies contracts revenue for the fiscal year ended October 31, 2013 was $14.4 million, which increased $7.0 million when compared to $7.5 million of revenue for the fiscal year ended October 31, 2012. The increase was primarily related

to solid oxide fuel cell development programs, particularly the unmanned aerial program with Boeing which was included in advanced technologies contract revenues as a result of the December 2013 acquisition of Versa. Cost of advanced technologies contracts increased $6.6 million to $13.9 million for the fiscal year ended October 31, 2013, compared to $7.2 million for the same period in the prior year. Gross profit from advanced technologies contracts for the fiscal year ended October 31, 2013 was $0.6 million compared to $0.2 million for the fiscal year ended October 31, 2012.

Administrative and selling expenses

Administrative and selling expenses were $21.2 million for the fiscal year ended October 31, 2013 compared to $18.2 million during the fiscal year ended October 31, 2012. Administrative and selling expenses increased as a result of expenditures to develop and expand the European market for megawatt-class fuel cell power plants and to continue efforts to commercialize solid oxide fuel cell technology.

Research and development expenses

Research and development expenses increased $1.3 million to $15.7 million during the fiscal year ended October 31, 2013, compared to $14.4 million during fiscal year 2012. The increase is a result of the consolidation of Versa's results with the results of the Company beginning in fiscal year 2013 combined with initiatives to continue to reduce the cost profile of large scale multi-megawatt installations through consolidating certain aspects of the balance of plant functions. Our internal research and development continues to be focused on cost reduction opportunities and product enhancements that have near term product implementation potential.

Loss from operations

Loss from operations for the fiscal year ended October 31, 2013 was $29.8 million compared to a loss of $32.1 million in 2012. The change year-over-year is a result of favorable gross profit from product sales offset by the impact of increased business development activity in the North American and European markets and increased research and development costs associated with consolidating Versa.

Interest expense

Interest expense for the fiscal years ended October 31, 2013 and 2012 was $4.0 million and $2.3 million, respectively. Interest expense increased primarily as a result of interest expense associated with the 8.0% Unsecured Convertible Debt issued in June 2013. Interest expense for both periods also includes interest for the amortization of the redeemable preferred stock of a subsidiary discount of $2.0 million.

Income/(loss) from equity investments

Income of $0.05 million from equity investments recorded in fiscal year ended October 31, 2013 represents our share of Versa's income through the acquisition date. A loss of $0.6 million was recorded for our share of Versa's losses for the fiscal year ended October 31, 2012.

License fee and royalty income

License fee income for the fiscal year ended October 31, 2012 was $1.6 million which represents the license fee and royalty income earned from POSCO Energy. Beginning in fiscal year 2013, license fees and royalty income have been included within revenues under service agreements and license revenues. Refer to Critical Accounting Policies and Estimates for further discussion on this change.

Impairment of Equity Investment

An impairment charge was recorded in the fourth quarter of fiscal year ended October 31, 2012 as an adjustment to the carrying value of the investment in Versa to its estimated fair value.

Other income (expense), net

Other income (expense), net, was expense of $1.2 million for the fiscal year ended October 31, 2013 compared to other income of $1.2 million for the same period in 2012. The current period expense recorded is primarily associated with the non-cash fair value adjustment of certain embedded derivatives and the prior year income recorded primarily represents proceeds received relating to an insurance recovery from a prior year claim and income received from scrap sales.

Provision for income taxes

We have not paid federal or state income taxes in several years due to our history of net operating losses (NOL), although we have paid foreign taxes in South Korea. For the fiscal year ended October 31, 2013 our provision for income taxes was $0.4 million. We have begun 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 domestic 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.

As of October 31, 2013, we had $631.0 million of federal NOL carryforwards that expire in the years 2020 through 2033 and $372.0 million in state NOL carryforwards that expire in the years 2013 through 2033. Additionally, we had $9.9 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 the fiscal year ended October 31, 2013 and 2012 was $1.0 million and $0.4 million, respectively.

Preferred Stock dividends

Dividends recorded and paid on the Series B Preferred Stock were $3.2 million in each of the fiscal years ending October 31, 2013 and 2012.

Net loss attributable to common shareholders and loss per common share

Net loss attributable to common shareholders represents the net loss for the period, less the net loss attributable to noncontrolling interest and less the preferred stock dividends on the Series B Preferred Stock. For the fiscal years ended October 31, 2013 and 2012, net loss attributable to common shareholders was $37.6 million and $38.7 million, respectively and loss per common share was $0.20 and $0.23, respectively.

Comparison of the Years Ended October 31, 2012 and October 31, 2011

Revenues and Costs of revenues

Our revenues and cost of revenues for the years ended October 31, 2012 and 2011 were as follows:

	Years Ended October 31,		Change	
(dollars in thousands)	2012	2011	$	%
Total revenues	$120,603	$122,570	$(1,967)	(2)
Total cost of revenues	$120,158	$135,180	$(15,022)	(11)
Total gross profit (loss)	$445	$(12,610)	$13,055	(104)
Gross margin	0.4%	(10.3)%		

Total revenues for the year ended October 31, 2012 decreased $2.0 million, or 2 percent, to $120.6 million from $122.6 million during the same period last year. Total cost of revenues for the year ended October 31, 2012 decreased by $15.0 million, or 11 percent, to $120.2 million from $135.2 million during the same period last year. A discussion of the changes in product sales and service agreement revenues and research and development contract revenues follows.

Product sales and service agreement revenues

Our product sales and service agreement revenues and cost of revenues for the years ended October 31, 2012 and 2011 were as follows:

	Years Ended October 31,		Change	
(dollars in thousands)	2012	2011	$	%
Revenues:				
Product sales	$94,950	$103,007	$(8,057)	(8)
Service agreement revenues	18,183	12,097	6,086	50
Total	$113,133	$115,104	$(1,971)	(2)
Cost of Revenues:				
Product sales	$93,876	$96,525	$(2,649)	(3)
Service agreement revenues	19,045	30,825	(11,780)	(38)
Total	$112,921	$127,350	$(14,429)	(11)
Gross profit (loss):				
Gross profit (loss) from product sales	$1,074	$6,482	$(5,408)	—
Gross loss from service agreement revenues	(862)	(18,728)	17,866	(95)
Total	$212	$(12,246)	$12,458	(102)
Product sales gross margin	1.1%	6.3%		
Service agreement and license revenues gross margin	(4.7)%	(154.8)%		

Product sales and service agreement revenues decreased $2.0 million, or 2 percent, in the fiscal year ended October 31, 2012 to $113.1 million compared to $115.1 million for the prior year period. Cost of product sales and service agreement revenues decreased $14.4 million, or 11 percent in the fiscal year ended October 31, 2012 to $112.9 million compared to $127.4 million in the same period the prior year. This decrease is primarily due to continued focus on reducing product costs and enhancing manufacturing processes and efficiencies. The decrease is also partially a result of a B1200 repair and upgrade program charge recorded in fiscal year 2011 totaling $8.3 million. Also, fiscal year 2011 cost of sales 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.

Gross profit for product sales and service agreement revenues is $0.2 million for fiscal year 2012, compared to a gross loss of $12.2 million in fiscal year 2011. Excluding the $8.3 million B1200 repair and upgrade charge in fiscal year ended October 31, 2011, the year-over year improvement is a result of continued focus on reducing product costs, enhancing manufacturing processes and efficiencies, and improving the financial profile of the service business.

Product Sales and Cost of Sales

Product sales and revenues for fiscal year ended October 31, 2012 included $77.0 million from the sale of power plants, fuel cell kits, fuel cell modules, and other fuel cell power plant components and $18.0 million of revenue primarily from the design and delivery of capital equipment to POSCO Energy for their fuel cell module assembly facility as well as construction and installation services. This compared to product sales and revenues in fiscal year 2011 which included $88.0 million from the sale of power plants, fuel cell kits, fuel cell modules, and other fuel cell power plant components and $15.0 million of revenue primarily from the design and delivery of capital equipment to POSCO Energy for their fuel cell module assembly facility as well as construction and installation services.

Cost of product sales decreased $2.6 million in fiscal year ended October 31, 2012 to $93.9 million, compared to $96.5 million in the same period the prior year. Gross profit decreased $5.4 million to $1.1 million in fiscal year 2012 compared to $6.5 million in fiscal year 2011 on a mix primarily consisting of fuel cell kits in fiscal year 2012 compared to a higher volume of revenue from complete power plants in fiscal year 2011 which had higher margins. As of October 31, 2012 our production run-rate was 56 MW.

Service Agreement Revenues and Cost of Revenues

Service agreement revenues for fiscal year ended October 31, 2012 totaled $18.1 million from service and power purchase agreements, compared to $12.1 million for fiscal year 2011, on an increased number of service agreements as the Company's number of units in the field continues to grow. Service agreement cost of revenues decreased to $19.0 million from $30.8 million in fiscal year 2011. The gross loss on service agreements decreased to $0.9 million for fiscal year ended October 31, 2012, compared to $18.7 million for the comparable prior year period. The improvement in service agreement margins 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 profitable megawatt-class service agreements are executed and as early generation sub-megawatt products are retired or become a smaller overall percentage of the installed fleet, we expect the loss on service agreements to continue to decline. Fiscal year 2011 also includes a B1200 repair and upgrade program charge totaling $8.3 million.

Cost of product sales includes costs to design, engineer, 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 scheduled module replacements assembly and conditioning equipment sold to POSCO Energy, warranty expense, liquidated damages and inventory excess and obsolescence charges. Cost of service agreements include maintenance and stack replacement costs to service power plants for customers with service agreements and operating costs for our units under PPA's.

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 canceled if we fail to meet certain product specifications or materially breach the agreements, 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.

Advanced technologies contracts

Advanced technologies contracts revenue and related costs for the fiscal years ended October 31, 2012 and 2011 were as follows:

	Years Ended October 31,		Change	
(dollars in thousands)	2012	2011	$	%
Advanced technologies contracts	$ 7,470	$ 7,466	$4	—
Cost of advanced technologies contracts	7,237	7,830	(593)	(8)
Gross profit	$ 233	$ (364)	$597	(164)

Advanced technologies contracts revenue for fiscal year 2012 was $7.5 million, unchanged when compared to fiscal year 2011. Cost of research and development contracts decreased $0.6 million to $7.2 million during fiscal year 2012, compared to $7.8 million for 2011. Gross profit (loss) from research and development contracts for 2011 was $0.2 million or 3 percent, compared to ($0.4 million) or (5 percent) in 2011. The increase in margins is due to the mix of cost share on contracts with activity during the period.

Administrative and selling expenses

Administrative and selling expenses were $18.2 million for the fiscal year ended October 31, 2012 compared to $16.3 million during fiscal year 2011. Administrative and selling increased as a result of higher market development expenditures for a number of power plant projects and expenditures incurred for additional operations in Europe.

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Research and development expenses

Research and development expenses decreased $2.4 million to $14.4 million during fiscal year 2012, compared to $16.8 million in fiscal year 2011. The decrease reflects cost reduction initiatives that resulted in lower overhead costs and also reflects continued focus on initiatives that have near term product implementation potential and product cost reduction opportunities.

Loss from operations

Loss from operations for the fiscal year ended October 31, 2012 was $32.1 million compared to a loss of $45.7 million in for the fiscal year ended October 31, 2011. The decrease reflects lower product costs and decreased research and development expenses, partially offset by higher administrative and selling expenses.

Interest expense

Interest expense, decreased to $2.3 million for the fiscal year ended October 31, 2012 compared to $2.6 million for the fiscal year ended October 31, 2011. Interest expense for both years includes interest for the amortization of the redeemable preferred stock of subsidiary discount of $2.0 million and $2.4 million, respectively.

Income/(loss) from equity investments

Loss of $0.6 million from equity investments was recorded in fiscal year ended October 31, 2012 relating to our investment in Versa compared to income of $0.1 million for the fiscal year ended October 31, 2011.

License fee and royalty income

License fee income for the fiscal year ended October 31, 2012 was $1.6 million compared to $1.7 million for the fiscal year ended October 31, 2011. The license fee income for both periods represents the license fee and royalty income earned from POSCO Energy.

Impairment of Equity Investment

An impairment charge was recorded in the fourth quarter of fiscal year 2012 to adjust the carrying value of the investment in Versa to its estimated fair value.

Other income (expense), net

Other income (expense), net, increased to $1.2 million for fiscal year 2012 compared to $1.0 million for fiscal year 2011. Other income (expense) for fiscal 2012 represents insurance proceeds received relating to an insurance recovery from a prior year claim and income received from scrap sales. Other income (expense), net for fiscal year 2011 includes foreign currency translation gains on the Series 1 preferred stock obligation.

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 for the fiscal year ended October 31, 2011. The modification of the Series 1 preferred share agreement resulted in a reclassification of the instrument on the consolidated balance sheets in fiscal year 2011 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, 2012 our provision for income taxes was $0.1 million, which related to South Korean tax obligations. Although we were gross margin profitable for fiscal year 2012, 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, 2012, we had $659 million of federal NOL carryforwards that expire in the years 2020 through 2032 and $372 million in state NOL carryforwards that expire in the years 2012 through 2032. Additionally, we had $9.5 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, 2012 and October 31, 2011 was $0.4 million and $0.3 million, respectively.

Adjustment for modification of redeemable preferred stock of subsidiary

Modification of the redeemable preferred stock of subsidiary resulted in a charge of $9.0 million for year ended October 31, 2011. The Company modified the terms of the instrument causing the reclassification of the instrument to a liability, which resulted in the Company accounting for the 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 represented a return to the preferred stockholder and was 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 recorded as a reduction of additional paid in capital of $9.0 million and was presented on the consolidated statements of operations as an adjustment for modification of redeemable preferred stock of subsidiary to arrive at net loss to common shareholders and is included in the calculation of net loss to common shareholders per share. The Company made its scheduled payments of Cdn. $4.4 million and Cdn. $10.9 million during fiscal years 2012 and 2011, respectively, under the terms of the modified agreement, including the recording of interest expense of approximately Cdn. $2.0 million and Cdn. $2.3 million, respectively. As of October 31, 2012 and October 31, 2011, the carrying value of the Series 1 Preferred shares was Cdn. $14.2 million ($14.2 million USD) and Cdn.$16.6 million ($16.7 million USD), respectively, 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 of the fiscal years ending October 31, 2012, and 2011.

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 fiscal year 2011 $9.0 million adjustment for the modification of redeemable preferred stock of subsidiary. For the fiscal years ended October 31, 2012 and 2011, net loss to common shareholders was $38.7 million and $57.9 million, respectively and loss per common share was $(0.23) and $(0.47), respectively.

Liquidity and Capital Resources

The Company's future liquidity will be dependent on obtaining the order volumes and cost reductions necessary to achieve profitable operations. The Company has consistently demonstrated positive gross margin results at production volumes in excess of 50 MW on an annualized basis. Increasing annual order volume and reduced product costs are expected to further increase margins and improve operating cash flows. We expect positive cash flows and net income profitability at an annual production rate of 80 - 90 MW. EBITDA (earnings before interest, taxes, depreciation and amortization) breakeven is expected with annual production volumes between 70 to 80 MW. Actual results will depend on product mix (domestic vs. international), volume, future service costs and market pricing. Sales of complete power plants in the U.S. and Europe generally carry higher margins then sales of kits to POSCO Energy, thus the mix of actual backlog and production can impact the Company’s profitability targets.

The production capacity at our manufacturing facility is approximately 100 MW with full utilization under its current configuration. Through industrial engineering, the total capacity was increased by 10 MW during fiscal year 2013. As a result of increased backlog, numerous actions were undertaken during the first half of fiscal year 2013 to increase the annual production run-rate at the Torrington, Connecticut facility to 70 MW which was achieved on April 30, 2013. We expect to continue to gain operating efficiencies and cost reductions at this run-rate during fiscal year 2014.

The Company is targeting positive quarterly cash flow as measured by EBITDA by the end of 2014 based on anticipated order flow and continued cost reductions.

Our current backlog, which includes a 121.8 MW order for POSCO Energy, combined with scheduled fuel cell module exchanges for existing power plant installations that are currently under service agreements, is expected to provide a base level of production

of approximately 50 MW per year through 2016 at the Company's production facility in Torrington, Connecticut. The Company targets adding approximately 30-40 MW of incremental backlog annually to utilize our available capacity. The Company has a strong order pipeline which was greater than 300 MW as of October 31, 2013. In addition to our existing pipeline, we are actively developing opportunities directly and through our business partners. As order flow dictates, the Company will adjust production to meet demand. Ramping from 70 to 90 MW consists of hiring direct labor and increasing volume to our supply chain over approximately a 6 month period. A ramp in this range would not require material incremental capital expenditures.

The Cell Technology Transfer Agreement we entered into on October 31, 2012 provides POSCO Energy with the technology to manufacture Direct FuelCell power plants in South Korea and the market access to sell power plants throughout Asia. This agreement has multiple benefits for both FuelCell Energy and POSCO Energy. POSCO Energy is currently constructing a cell manufacturing facility in South Korea that is physically sized for 200 MW of annual production and is expected to be initially configured for 100 MW annual production. Production in South Korea will improve responsiveness for meeting demand under the Renewable Portfolio Standard. The Company will avoid capital investment for Asian market development and will benefit from market expansion by receiving a royalty payment from POSCO Energy for each power plant sold over a 15 year term with options to extend. Establishing a second source of supply for fuel cell modules mitigates a risk factor for prospective customers evaluating long term fuel cell power plant projects that include scheduled replacement modules. Increased production volume, whether in the USA or South Korea, will reduce the cost of DFC plants, further spurring market adoption.

If demand develops beyond the combined capacity of the Company and POSCO Energy, we have the ability to further expand production capacity at our Torrington facility to approximately 200 MW assuming three shift operations six days a week. This expansion would 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 of the Company's Torrington facility to 200 MW would require additional capital investments of $30 to $40 million, although this expansion may occur in stages depending on the level of market demand. Management periodically reviews and updates the expansion plans as our order pipeline evolves.

During the fourth quarter of fiscal year 2013, the Company entered into a revised Master Service Agreement with POSCO Energy, its South Korean partner, whereby POSCO Energy assumes more responsibility for servicing installations in Asia that utilize power plants manufactured by POSCO Energy. The Company will perform engineering and support services for each unit in the installed fleet and receive quarterly fees as well as a royalty on each scheduled fuel cell module replacement under service agreements which were built by POSCO Energy and installed at any plant in Asia.

In addition to cash flows from operations, we may also pursue raising 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 working capital and capital expenditures) and (iii) potential local or state Government loans or grants in return for manufacturing job creation and retention. We currently employ over 500 employees in the State of Connecticut and over 600 on a global basis. 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 and cash equivalents and restricted cash and cash equivalents totaled $77.7 million as of October 31, 2013 compared to $57.5 million as of October 31, 2012. As of October 31, 2013, restricted cash and cash equivalents was $10.0 million, of which $5.1 million was classified as current and $4.9 million was classified as long-term compared to $10.6 million total restricted cash and cash equivalents as of October 31, 2012, of which $5.3 million was classified as current and $5.3 million was classified as long-term.

The key components of our cash inflows and outflows were as follows:

Operating Activities - Cash used in operating activities was $16.7 million during fiscal year 2013 compared to $58.7 million used in operating activities during fiscal year 2012. Net cash used in fiscal year 2013 was a result of increases in accounts receivable of $12.0 million and an increase in inventory of $5.9 million. These were offset by increases in deferred revenue of $9.1 million due to achieving customer milestone billings, an increase in accounts payable of $11.8 million due to the increased production rate and a decrease in other assets of $6.1 million, primarily due to fuel cell stack assets which the Company provided to POSCO Energy under the terms of a revised Master Service Agreement. Net cash used in fiscal year 2012 of $58.7 million was a result of a decrease in deferred revenue of $9.6 million due to new order milestone payments in fiscal year 2011 and a decrease in accrued liabilities of $6.1 million primarily due to the reserve established in fiscal year 2011 for the B1200 repair and upgrade program.

There were also increases in accounts and license fee receivables of $14.1 million which was partially offset by a decrease in other assets due to accumulated depreciation of restacks under service agreements (SA) offset by restacks (refer to discussion of Critical Accounting Policies and Estimates Below).

Investing Activities - Cash used in investing activities was $6.2 million during fiscal year 2013 compared to net cash provided by investing activities of $7.5 million during fiscal year 2012. Net cash used during fiscal year 2013 related to capital expenditures of $6.6 million, partially offset by cash acquired from the Versa acquisition of $0.4 million. Cash provided by investing activities during fiscal year 2012 relates to the maturity of U.S. treasuries of $12.0 million, partially offset by capital expenditures of $4.5 million.

Financing Activities - Net cash provided by financing activities was $43.6 million during fiscal year 2013 compared to net cash provided by financing activities of $55.0 million in the prior year period. The net cash provided by financing activities during fiscal year 2013 was related to proceeds received from the convertible debt issuance of $38.0 million, proceeds from the CEFIA Loan of $4.8 million, a draw down on the line of credit facility of $2.5 million, a decrease in restricted cash of $0.6 million for letters of credit issued to support the Company's obligations under customer contracts offset by the payment of preferred dividends and return of capital payments of $4.4 million and the capitalization of financing costs associated with the convertible debt issuance of $2.5 million. Net cash provided by financing activities in fiscal year 2012 included proceeds from the routine sale of common stock of $2.0 million, net proceeds from the public offering of 23.0 million shares of common stock for proceeds of $32.0 million and $30.0 million of net proceeds from the sale of common stock to POSCO Energy offset by an increase in restricted cash of $2.2 million and the payment of preferred dividends and return of capital payments of $7.6 million.

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. Our operations are funded primarily through cash generated from product sales and research and development contracts, license fee and royalty income, and sales of equity securities and hybrid debt instruments. In order to consistently produce positive cash flow from operations, we need to increase order flow to support higher production levels, leading to lower costs.

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 100 MW with full utilization. Updates on our key geographic markets are as follows:

South Korea: The RPS in South Korea took effect at the beginning of fiscal year 2012, requiring an increase of new and renewable power generation to 10 percent by 2022 from 2 percent in fiscal year 2012. The program mandates the addition of 0.5 percent of renewable power generation per year through 2016, which equates to approximately 350 megawatts, increasing to 1.0 percent per year through 2022 or approximately 700 megawatts per year. 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 for power generation, ease of siting in populated areas, and the poor wind and solar profiles of the Korean Peninsula. The South Korean government has made clean distributed generation power sources a priority 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 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 have RPS’s that require utilities to provide a certain amount of their electricity from renewable sources, including fuel cells. RPS requirements or goals have been established in 30 states plus the District of Columbia. Fuel cells using biogas qualify as renewable power generation technology in all of the RPS states in the U.S., and 7 states specify that fuel cells operating on natural gas are also eligible for these initiatives in recognition of

the high efficiency of fuel cells and near-zero pollutants.

Most of our installed base in the U.S. is located in California and Connecticut, both of which have enacted RPS programs. The clean energy requirement in California is 33 percent and the State is undertaking an initiative to deploy 12,000 megawatts of clean 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 facilitates the clean air

permitting process. All three of our DFC power plant models, including the 2.8 MW DFC3000, 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 and both the DFC1500 and DFC300 are certified for operation on renewable biogas. In the State of California, the CARB 2007 certification allows the local Air Quality Management District to exempt the fuel cell installation from the clean air permitting process, which accelerates the approval process. Outside of California, the CARB 2007 certification independently validates the clean air profile of DFC plants.

Programs which benefit fuel cells in California are the Self-Generation Incentive Program (SGIP), a renewable feed in tariff (FIT) program, 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 natural gas. Under both FIT programs, excess electricity not used on-site can be sold at a price higher than the normal wholesale power rate. These feed-in tariffs may improve the economics of some fuel cell projects.

California's carbon reduction cap and trade program under Assembly Bill AB32 provides preferential treatment for fuel cells as they are excluded from the compliance obligations of the program, whether operating on natural gas or renewable biogas. This legislation supports the economics of fuel cell power plants as facilities with combustion based power generation, heating and/or cooling can reduce or eliminate their compliance costs by deploying fuel cells. The latest carbon auction from August 2013 valued carbon credits at $12.12/ton, a level that attracts attention as it is high enough to favorably impact project economies and represents an increase from the initial auction at approximately $10/ton.

Connecticut: Connecticut has adopted a comprehensive clean energy policy, including a state RPS, designed to increase energy efficiency and expand renewable power and a long-term renewable energy credit (LREC) program funded with $300 million over 20 years. The LREC program is expected to be more effective in fostering the near-term adoption of clean distributed generation than prior legislation. The State also passed legislation that allows each of the Connecticut electric utilities to own up to 10 MW of renewable power generation, including fuel cells. Prior to this legislation, the utilities owned only transmission and distribution, as they were not permitted to own both power generation as well as transmission and distribution.

Our DFC power plants are providing power for food processors, a university, an insurance company data center and government facilities in the State as well as the previously mentioned 14.9 MW fuel cell park to support the electric grid and a plant being installed at a hospital. As we grow, our Company is contributing to the state economy, creating sustainable and good paying jobs in the manufacturing sector as well as research, engineering and administrative jobs.

Other U.S. States: We have active business development activities in other states including New York and New Jersey. New Jersey, for example, implemented a program to support the adoption of clean distributed generation in combined heat and power configurations, including fuel cells. We are actively pursuing opportunities under this program. As states look to meet their RPS requirements and utilities further to deploy distributed generation to meet consumer demand and improve the resiliency of their service network, we see significant opportunities to grow our U.S. footprint. Trends away from central generation are supportive of demand and our initiatives to continue to lower product costs are expected to lead to increased adoption.

Canada: Our DFC-ERG (Direct FuelCell Energy Recovery Generation™) 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. The first DFC-ERG power plant was installed in Toronto in 2008. The 2.2 MW 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. We see further market opportunities for this application on natural gas pipelines.

Europe: The European power generation market values efficiency and low emissions and represents significant opportunity for stationary fuel cell power plants. We are targeting Germany as they transition away from nuclear power generation and struggle to integrate a significant amount of intermittent power generation capacity, and the United Kingdom as they work to achieve aggressive carbon reduction goals. Our European Served Area pipeline also includes projects in other European countries including Italy, Spain, France as well as the Middle East.

FuelCell Energy Solutions, GmbH (FCES) is a German-based joint venture that is 75 percent owned by FuelCell Energy and 25 percent owned by German-based Fraunhofer Institute for Ceramic Technologies and Systems IKTS (Fraunhofer IKTS). Fraunhofer IKTS focuses on the development of new energy supply systems using ceramic system components, including fuel cells. As

discussed in greater detail below, Fraunhofer IKTS has expertise in fuel cell technology and is assisting with the development of the European market for our products. FCES sold a DFC power plant to the developer of a government office complex in Berlin, Germany that will house a Federal Ministry and sold a DFC power plant to the developer of an office tower in London, England. Both installations are high-visibility locations that are expected to increase awareness of the attributes and benefits of clean distributed generation fuel cell power plants.

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.

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;
- 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, 2013 and the related payments by fiscal year is summarized as follows:

(dollars in thousands)	Payments Due by Period				
Contractual Obligations	Total	Less than 1 year	1 - 3 years	3 - 5 years	More Than 5 years
Purchase Commitments [1]	$86,135	$76,692	$9,386	$57	$—
Series 1 Preferred obligation [2]	12,908	1,195	2,389	2,389	6,935
Term loans (principal and interest)	8,990	212	445	2,589	5,744
Senior Unsecured Convertible Notes [3]	38,000	—	—	38,000	—
Capital and operating lease commitments [4]	5,247	2,215	2,385	647	—
Revolving Credit Facility [5]	6,500	6,500	—	—	—
Series B Preferred dividends payable [6]	—	—	—	—	—
Total	$157,780	$86,814	$14,605	$43,682	$12,679

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

(2) The terms of the Class A Cumulative Redeemable Exchangeable Preferred Share Agreement (the “Series 1 Preferred Share Agreement”) require payments of (i) an annual amount of Cdn$500,000 for dividends and (ii) an amount of Cdn. $750,000 as return of capital payments payable in cash. These payments 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 at a rate of 1.25% per quarter, compounded quarterly. On December 31, 2020 the amount of all accrued and unpaid dividends on the Class A Preferred Shares of Cdn. $21.1 million and the balance of the principal redemption price of Cdn. $4.4 million will be due 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) On June 25, 2013, the Company issued, at par amount, 8.0% Senior Unsecured Convertible Notes ("Notes") with an aggregate principal amount of $38.0 million. The Notes bear interest at a rate of 8.0% per annum. Interest on the

Notes is payable in cash or subject to certain limitations, in common stock semi-annually in arrears on December 15 and June 15 of each year, beginning December 15, 2013. The Notes mature on June 15, 2018. The Notes are convertible, upon the Note holder's option, into shares of the Company's common stock initially at a conversion rate of 645.1613 shares per $1,000 principal amount of notes (equivalent to an initial conversion price of approximately $1.55 per share) plus a "make-whole" amount, as applicable. The interest payments have been excluded from the table above since the payments may, at the Company's option, be paid in

stock. In December 2013, certain investors elected to convert a total of $8.0 million principal of $38.0 million in aggregate principal the 8.0% Senior Unsecured Convertible Notes. Refer to Note 20 in Item 8 for more information.

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

(5) The amount represents the amount outstanding as of October 31, 2013 on an $8.0 million revolving credit facility with JPMorgan Chase Bank, N.A. and the Export-Import Bank of the United States. The credit facility is 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 and the current expiration date is April 2, 2014. 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, up to the amount of the outstanding facility balance.

(6) We pay $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 the 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, 2013, we had an outstanding balance of $3.2 million on this loan. The interest rate is 5% 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 interest and principal payments through May 2018.

On March 5, 2013 the Company closed on a long-term loan agreement with the Connecticut Clean Energy and Finance Investment Authority (CEFIA) totaling $5.9 million in support of the Bridgeport fuel cell project. The loan agreement carries an interest rate of 5.0% and principal repayments will commence on the eighth anniversary of the project's provisional acceptance date, which has yet to be determined, in forty eight equal monthly installments. Outstanding amounts are secured by future cash flows from the Bridgeport contracts. Advances of $4.8 million were made under the CEFIA Note during fiscal year 2013. A prior loan from the Connecticut Clean Energy Fund Note in the amount outstanding of $0.9 million was rolled into the new CEFIA Note. The outstanding balance on the CEFIA Note as of October 31, 2013 was $5.7 million.

We have pledged approximately $10.0 million of our cash and cash equivalents as collateral and letters of credit for certain banking requirements and contracts. As of October 31, 2013, outstanding letters of credit totaled $7.7 million. These expire on various dates through April 2019. Under the terms of certain contracts, the Company will provide performance security for future contractual obligations. Under the terms of the Bridgeport Equipment and Installation contract with Dominion, the provisional acceptance payment to the Company totaling $15.0 million shall be placed in a Grantor's Trust account to secure certain FCE obligations under the 15-year Service agreement. This transaction is expected to occur in the first quarter of fiscal 2014 and the cash will be reflected as Restricted Cash on the Company's balance sheet. The restrictions on the $15.0 million will be removed upon completion of the final module exchange at the Bridgeport facility under terms of the services agreement.

As of October 31, 2013, we have uncertain tax positions aggregating $15.7 million and have 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 December 2013, certain investors elected to convert a total of $8.0 million of principal of $38.0 million in aggregate principal of the 8.0% Senior Unsecured Convertible Notes. Under the terms of the Notes they are convertible into shares of the Company's common stock at a conversion rate of 645.1613 shares of common stock per $1,000 principal amount of convertible notes, equivalent to a conversion price of approximately $1.55 per share of common stock plus a "make-whole" payment in regard to interest. As a result of these conversions, the Company

retired $8.0 of outstanding principal and issued 6,283,385 shares of common stock.

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

Power purchase agreements

In California, we have 1.5 MW of power plant installations under power purchase agreements ranging in duration from four to six 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. These agreements were executed when we first began commercializing our technology. We are not actively pursuing this type of ownership structure at the present time.

Service and warranty agreements

We warranty our products for a specific period of time against manufacturing or performance defects. Our standard warranty period is generally 15 months after shipment or 12 months after acceptance of the product. We have agreed to warranty 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 and most prevalent services agreement 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.

Advanced technologies contracts (Research and development cost-share contracts)

Advanced technologies contract revenues have been renamed from Research and development contracts to better describe the sources of revenue from contract research. 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, 2013, Advanced technologies contracts backlog totaled $18.5 million, of which $12.7 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 SA's, share-based compensation expense, allowance for doubtful accounts, depreciation and amortization, impairment of goodwill and in-process research and development, impairment of long-lived assets, purchase accounting, 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 (ii) the sale of component part kits and spare parts to customers, (iii) site engineering and construction services, (iv) providing services under SA's, (v) the sale of electricity under PPA's as well as incentive revenue from the sale of electricity under PPA's, (vi) license fees and royalty income from manufacturing and technology transfer agreements, and (vii) customer-sponsored advanced technology projects.

The Company periodically enters into arrangements with customers that involve multiple elements of the above items. We assess such contracts to evaluate whether there are multiple deliverables, and whether the 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 product and kit sales, construction services and component part revenue is recorded as product sales in the consolidated statements of operations. Revenue from SA's, PPA's, license and royalty revenue and engineering services revenue is recorded as service and license revenues. Revenue from customer-sponsored advanced technology research and development projects is recorded as advanced technologies contract 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 operations 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 $0.09 million and $0.04 million as of October 31, 2013 and 2012, 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 products and 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 service agreement contracts is generally recorded ratably over the term of the SA, as our performance of routine monitoring and maintenance under these SA's are generally expected to be incurred on a straight-line basis. For SA's where we expect to have a restack at some point during the term (generally SA's in excess of five years), the costs of performance are not expected to be incurred on a straight-line basis, and therefore, a portion of the initial value related to the stack replacement is deferred and is recognized upon such stack replacement event.

Under PPA's, revenue from the sale of electricity is recognized as electricity is provided to the customer.
The Company receives license fees and royalty income from POSCO Energy as a result of manufacturing and technology transfer agreements entered into in 2007, 2009 and 2012. The Cell Technology Transfer Agreement we entered into on October 31, 2012 provides POSCO Energy with the technology to manufacture Direct FuelCell power plants in South Korea and the market access to sell power plants throughout Asia. In conjunction with this agreement we amended the 2010-year manufacturing and distribution agreement with POSCO Energy and the 2009 License Agreement. The 2012 agreement and the amendments contain multiple elements, including the license of technology and market access rights, fuel cell kit product deliverables, as well as professional service deliverables. We have identified these three items as deliverables under the multiple-element arrangement guidance and have evaluated the estimated selling prices to allocate the relative fair value basis to these deliverables, as vendor-specific objective evidence and third-party evidence was not available. The Company's determination of estimated selling prices involves the consideration of several factors based on the specific facts and circumstances of each arrangement. Specifically, the Company considers the cost to produce the tangible product and professional service deliverables, the anticipated margin on those deliverables, prices charged when those deliverables are sold on a stand-alone basis in limited sales, and the Company's ongoing pricing strategy and practices used to negotiate and price overall bundled product, service and license arrangements. We are amortizing the consideration allocated to the license of technology and market access rights over the 15 year license term on a straight-line basis, and will recognize the amounts allocated to the kit deliverables and professional service deliverables when such items are delivered to POSCO Energy. We have also determined that based on the utility to the customer of the fully developed technology that was licensed in the Cell Technology Transfer Agreement, there is stand-alone value for this deliverable.

Beginning in fiscal year 2013, license fees and royalty income have been included within revenues on the consolidated statement of operations. This change is a result of the license agreement entered into on October 31, 2012 for our core technology and the harmonization of the existing agreements to reflect fees and royalties for the manufacture of complete DFC Power Plants. Classification as revenue is reflective of our Asia market partnership and royalty based strategy and this business activity having become a significant component of non-product revenue and is expected to continue to grow over time.

Revenue from advanced technology contracts is recognized as costs are incurred less cost share plus general and administrative expenses to the extent the contract value is funded. Revenue from customer funded advanced technology 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 advanced technology contracts may extend for many years, funding is often provided incrementally on a year-by-year basis if contract terms are met and funds are authorized.
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.
Inventories are reviewed to determine if valuation adjustments 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 acceptance 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, 2013 and 2012, the warranty reserve, which is classified in accrued liabilities on the consolidated balance sheet, totaled $0.9 million and $2.3 million, respectively.

In addition to the standard product warranty, we have entered into service agreement contracts with certain customers to provide monitoring, maintenance and repair services for fuel cell power plants. Under the terms of our service agreement, 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 and/or replace the customer's fuel cell stack. The Company has provided for a reserve for performance guarantees of $0.5 million and $2.2 million as of October 31, 2013 and 2012, respectively.

The Company provides for reserves on all SA's when the estimated cost of future stack replacements and maintenance and monitoring activities exceed the remaining contract value. Reserve estimates for future costs on SA's are determined by a number of factors including the estimated remaining life of the stack, used replacement stacks available, our limit of liability on SA's 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, 2013 and 2012, our reserve on service agreement contracts totaled $3.7 million and $5.0 million, respectively.

At the end of our SA's, customers are expected to either renew the SA or, based on the Company's ability to obtain rights to title for the module, the module will be returned to the Company as the plant is no longer being monitored or having routine service performed. As of October 31, 2013, the total remaining stack asset value was $2.9 million compared to $14.3 million as of October 31, 2012. As of October 31, 2013, accumulated depreciation on stack assets, which is recorded as cost of service agreement revenues, totaled approximately $2.1 million compared to $7.6 million at October 31, 2012.

During fiscal year 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. As of October 31, 2013, the accrued obligation balance related to this item was $7.3 million compared to $4.8 million as of October 31, 2012. The increase in the reserve is a result of an incremental charge due to the terms of the Master Service Agreement with POSCO Energy requiring us to relinquish the residual value for three replacement modules due to POSCO Energy under the B1200 agreement. These modules are expected to be supplied to POSCO Energy in early 2014.

The Company has completed the repair activities related to the program. The remaining accrued balance is related to modules which are expected to be deployed as field replacements and will be provided to POSCO Energy per the terms of the commitment when needed.

Share-Based Compensation

We account for restricted stock awards (RSAs) and restricted stock units (RSUs) 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 expense was $2.2 million, $2.1 million and $2.6 million for the fiscal years ended October 31, 2013, 2012 and 2011, 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.

Certain transactions involving the Company's beneficial ownership occurred in fiscal 2013 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 2013 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 2013 fiscal year under Section 382. The acquisition of VERSA triggered a Section 382 ownership change which will limit the future usage of some of the Federal and state NOLs. The Federal and state NOLs that are non 382-limited are included in the NOL deferred tax assets as disclosed in Item 8, footnote 15.

Accounting Guidance Update

Recently Adopted Accounting Guidance

In July 2012, the FASB issued guidance concerning the testing of indefinite-lived intangible assets for impairment. This guidance gives an entity the option first to assess qualitative factors to determine whether the existence of events and circumstances indicates that it is more likely than not that the indefinite-lived intangible asset is impaired. If, after assessing the totality of events and circumstances, an entity concludes that it is not more likely than not that the indefinite-lived intangible asset is impaired, then the entity is not required to take further action. However, if an entity concludes otherwise, then it is required to determine the fair value of the indefinite-lived intangible asset and perform the quantitative impairment test by comparing the fair value with the carrying amount in accordance with ASC Subtopic 350-30, “Intangibles--Goodwill and Other, General Intangibles Other than Goodwill.” Under the guidance, an entity also has the option to bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to performing the quantitative impairment test. An entity will be able to resume performing the qualitative assessment in any subsequent period. The Company adopted this guidance effective November 1, 2012 and the revised standard did not have a material impact on the Company’s consolidated financial statements.

Recent Accounting Guidance Not Yet Effective

None.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Exposure

We typically invest in U.S. treasury securities with maturities ranging from less than three months to one year or more. We typically hold these investments until maturity and accordingly, these investments are carried at cost and not subject to mark-to-market accounting. At October 31, 2013, we had no U.S. treasury investments. Cash is invested overnight with high credit quality financial institutions and therefore we are not exposed to market risk on our cash holdings from changing interest rates. Based on our overall interest rate exposure at October 31, 2013, including all interest rate sensitive instruments, a change in interest rates of one percent would not have a material impact on our results of operations.

Foreign Currency Exchange Risk

As of October 31, 2013, approximately five percent of our total cash, cash equivalents and investments were in currencies other than U.S. dollars (primarily the Euro, Canadian dollars and South Korean Won) and we have no plans of repatriation. 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

The conversion feature and the variable dividend obligation of our Series 1 Preferred shares are embedded derivatives that require bifurcation from the host contract. The aggregate fair value of these derivatives included within long-term debt and other liabilities as of October 31, 2013 and 2012 was $0.7 million. 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 operations. However, any changes to these assumptions would not have a material impact on our results of operations.

Senior Unsecured Convertible Notes

The change in control put redemption feature and the interest make-whole payments upon conversion embedded in the Senior Unsecured Convertible Notes meet the definition of derivatives that each require bifurcation from the host contract. The aggregate fair value of these derivatives at June 25, 2013, which is the issuance date of the Notes, was $3.2 million. The aggregate fair value of these derivatives at October 31, 2013 is $4.7 million. The fair values were determined using a lattice-based valuation model. In determining the fair value of these bifurcated derivatives, various assumptions were used. Stock price was projected assuming a log-normal distribution. The stock volatility, the interest rate curve, the borrowing cost and credit spread are all assumed to be deterministic. The value is calculated as the difference between the value of the original note and a note with no change of control or make-whole payments upon conversion features. Changes in assumptions would change the underlying fair values with a corresponding charge or credit to operations. Any changes to these assumptions would not have a material impact on our results of operations.

Item 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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, 2013 and 2012, and the related consolidated statements of operations and comprehensive income (loss), changes in (deficit) equity, and cash flows for each of the years in the three-year period ended October 31, 2013. We also have audited FuelCell Energy, Inc.'s internal control over financial reporting as of October 31, 2013, 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, 2013 and 2012, and the results of its operations and its cash flows for each of the years in the three-year period ended October 31, 2013, 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, 2013, 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 6, 2014

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FUELCELL ENERGY, INC.
Consolidated Balance Sheets
October 31, 2013 and 2012
(Amounts in thousands, except share and per share amounts)

	2013	2012
ASSETS		
Current assets:		
Cash and cash equivalents	$67,696	$46,879
Restricted cash and cash equivalents - short-term	5,053	5,335
License fee receivable	—	10,000
Accounts receivable, net of allowance for doubtful accounts of $14 and $586, respectively	49,116	25,984
Inventories	56,185	47,701
Other current assets	11,279	4,727
Total current assets	189,329	140,626
Restricted cash and cash equivalents - long-term	4,950	5,300
Property, plant and equipment, net	24,225	23,258
Goodwill	4,075	—
Intangible assets	9,592	—
Investment in and loans to affiliate	—	6,115
Other assets, net	5,465	16,186
Total assets	$237,636	$191,485
LIABILITIES AND (DEFICIT) EQUITY		
Current liabilities:		
Current portion of long-term debt	$6,931	$5,161
Accounts payable	24,535	12,254
Accounts payable due to affiliate	—	203
Accrued liabilities	21,912	20,265
Deferred revenue	51,857	45,939
Preferred stock obligation of subsidiary	1,028	1,075
Total current liabilities	106,263	84,897
Long-term deferred revenue	18,763	15,533
Long-term preferred stock obligation of subsidiary	13,270	13,095
Long-term debt and other liabilities	52,675	3,975
Total liabilities	190,971	117,500
Redeemable preferred stock (liquidation preference of $64,020 at October 31, 2013 and October 31, 2012)	59,857	59,857
Total (deficit) equity:		
Shareholders' (deficit) equity		
Common stock ($.0001 par value; 275,000,000 shares authorized at October 31, 2013 and 2012, respectively; 196,310,402 and 185,856,123 shares issued and outstanding at October 31, 2013 and 2012, respectively)	20	18
Additional paid-in capital	758,656	751,256
Accumulated deficit	(771,189)	(736,831)
Accumulated other comprehensive income	101	66
Treasury stock, Common, at cost (5,679 shares at October 31, 2013 and 2012)	(53)	(53)
Deferred compensation	53	53
Total shareholders' (deficit) equity	(12,412)	14,509
Noncontrolling interest in subsidiaries	(780)	(381)

Total (deficit) equity	(13,192	) 14,128
Total liabilities and (deficit) equity	$237,636	$191,485

See accompanying notes to consolidated financial statements.

FUELCELL ENERGY, INC.
Consolidated Statements of Operations and Comprehensive Income (Loss)
For the Years Ended October 31, 2013, 2012, and 2011
(Amounts in thousands, except share and per share amounts)

	2013	2012	2011
Revenues (1):			
Product sales	$145,071	$94,950	$103,007
Service agreements and license revenues	28,141	18,183	12,097
Advanced technologies contract revenues	14,446	7,470	7,466
Total revenues	187,658	120,603	122,570
Costs of revenues:			
Cost of product sales	136,989	93,876	96,525
Cost of service agreements and license revenues	29,683	19,045	30,825
Cost of advanced technologies contract revenues	13,864	7,237	7,830
Total cost of revenues	180,536	120,158	135,180
Gross profit (loss)	7,122	445	(12,610)
Operating expenses:			
Administrative and selling expenses	21,218	18,220	16,299
Research and development expenses	15,717	14,354	16,768
Total operating expenses	36,935	32,574	33,067
Loss from operations	(29,813)	(32,129)	(45,677)
Interest expense	(3,973)	(2,304)	(2,578)
Income (loss) from equity investments	46	(645)	58
Impairment of equity investment	—	(3,602)	—
License fee and royalty income	—	1,599	1,718
Other income (expense), net	(1,208)	1,244	1,047
Loss before redeemable preferred stock of subsidiary	(34,948)	(35,837)	(45,432)
Accretion of redeemable preferred stock of subsidiary	—	—	(525)
Loss before provision for income taxes	(34,948)	(35,837)	(45,957)
Provision for income taxes	(371)	(69)	(17)
Net loss	(35,319)	(35,906)	(45,974)
Net loss attributable to noncontrolling interest	961	411	261
Net loss attributable to FuelCell Energy, Inc.	(34,358)	(35,495)	(45,713)
Adjustment for modification of redeemable preferred stock of subsidiary	—	—	(8,987)
Preferred stock dividends	(3,200)	(3,201)	(3,200)
Net loss to common shareholders	$(37,558)	$(38,696)	$(57,900)
Net loss to common shareholders per share			
Basic	$(0.20)	$(0.23)	$(0.47)
Diluted	$(0.20)	$(0.23)	$(0.47)
Weighted average shares outstanding			
Basic	186,525,001	165,471,261	124,498,073
Diluted	186,525,001	165,471,261	124,498,073

	2013	2012	2011
Net loss	$(35,319)	$(35,906)	$(45,974)
Other comprehensive income (loss):			
Foreign currency translation adjustments	35	51	4
Comprehensive loss	$(35,284)	$(35,855)	$(45,970)

See accompanying notes to consolidated financial statements.

(1) Includes revenue from a related party. Refer to Concentrations in note 1 to the financial statements.

FUELCELL ENERGY, INC.
Consolidated Statements of Changes in (Deficit) Equity
For the Years Ended October 31, 2013, 2012, and 2011
(Amounts in thousands, except share and per share amounts)

	Common Stock								
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Deferred Compensation	Noncontrolling interest in subsidiaries	Total Equity (Deficit)
Balance, October 31, 2010	112,965,725	$ 11	$663,951	$ (655,623)	$ 11	$ (53)	$ 53	$ (663)	$7,687
Sale of common stock	24,064,924	2	32,862	—	—	—	—	—	32,864
Share based compensation	—	—	2,577	—	—	—	—	—	2,577
Stock issued under benefit plans	1,369,848	—	654	—	—	—	—	—	654
Preferred dividends — Series B	—	—	(3,200)	—	—	—	—	—	(3,200)
FuelCell Ltd (adjustment from Series 1 modification)	—	—	(8,987)	—	—	—	—	—	(8,987)
Noncontrolling interest in subsidiaries	—	—	—	—	—	—	—	(261)	(261)
Effect of foreign currency translation	—	—	—	—	4	—	—	—	4
Net loss attributable to FuelCell Energy, Inc.	—	—	—	(45,713)	—	—	—	—	(45,713)
Balance, October 31, 2011	138,400,497	$ 13	$687,857	$ (701,336)	$ 15	$ (53)	$ 53	$ (924)	$(14,375)
Sale of common stock	45,012,306	5	63,998	—	—	—	—	—	64,003
Share based compensation	—	—	2,054	—	—	—	—	—	2,054
Stock issued under benefit plans	2,443,320	—	548	—	—	—	—	—	548
Preferred dividends — Series B	—	—	(3,201)	—	—	—	—	—	(3,201)
Sale of noncontrolling interest in subsidiary	—	—	—	—	—	—	—	954	954
	—	—	—	—	—	—	—	(411)	(411)

Noncontrolling interest in subsidiaries									
Effect of foreign currency translation	—	—	—	—	51	—	—	—	51
Net loss attributable to FuelCell Energy, Inc.	—	—	—	(35,495)	—	—	—	—	(35,495)
Balance, October 31, 2012	185,856,123	$ 18	$751,256	$ (736,831)	$ 66	$ (53)	$ 53	$ (381)	$14,128
Sale of common stock	4,295,800	$ 1	$5,547	—	—	—	—	—	5,548
Common stock issued for acquisition	3,526,764	1	3,562	—	—	—	—	—	3,563
Share based compensation	—	—	2,226	—	—	—	—	—	2,226
Stock issued under benefit plans	2,631,715	—	(173)	—	—	—	—	—	(173)
Reclass of noncontrolling interest due to liquidation of subsidiaries	—	—	(562)	—	—	—	—	562	—
Noncontrolling interest in subsidiaries	—	—	—	—	—	—	—	(961)	(961)
Preferred dividends - Series B	—	—	(3,200)	—	—	—	—	—	(3,200)
Effect of foreign currency translation	—	—	—	—	35	—	—	—	35
Net loss attributable to FuelCell Energy, Inc.	—	—	—	(34,358)	—	—	—	—	(34,358)
Balance, October 31, 2013	196,310,402	$ 20	$758,656	$ (771,189)	$ 101	$ (53)	$ 53	$ (780)	$(13,192)

See accompanying notes to consolidated financial statements.

FUELCELL ENERGY, INC.
Consolidated Statements of Cash Flows
For the Years Ended October 31, 2013, 2012 and 2011
(Amounts in thousands, except share and per share amounts)

	2013	2012	2011
Cash flows from operating activities:			
Net loss	$(35,319)	$(35,906)	$(45,974)
Adjustments to reconcile net loss to net cash used in operating activities:			
Share-based compensation	2,226	2,054	2,577
(Income) loss in equity investments	(46)	645	(58)
Impairment of equity investment	—	3,602	—
Accretion of redeemable preferred stock of subsidiary	—	—	525
Change in fair value of embedded derivatives	1,359	180	137
Depreciation	4,097	5,192	6,431
Amortization of convertible note discount and interest expense	2,480	2,018	2,490
Other non-cash transactions	(382)	(297)	(23)
(Increase) decrease in operating assets:			
Accounts and license fee receivables	(12,000)	(14,066)	(4,046)
Inventories	(5,901)	(7,600)	(6,697)
Other assets	6,076	3,032	(15,586)
Increase (decrease) in operating liabilities:			
Accounts payable	11,776	(1,790)	3,405
Accrued liabilities	(172)	(6,081)	10,761
Deferred revenue	9,148	(9,642)	37,573
Net cash used in operating activities	(16,658)	(58,659)	(8,485)
Cash flows from investing activities:			
Capital expenditures	(6,551)	(4,453)	(3,350)
Cash acquired from acquisition	357	—	—
Convertible loan to affiliate	—	—	(600)
Treasury notes matured	—	12,000	55,000
Treasury notes purchased	—	—	(33,019)
Net cash (used in) provided by investing activities	(6,194)	7,547	18,031
Cash flows from financing activities:			
Repayment of debt	(374)	(173)	(306)
Proceeds from debt	45,250	—	4,000
Financing costs for convertible debt securities	(2,472)	—	—
Proceeds received for noncontrolling interest in subsidiary	—	954	—
Decrease (increase) in restricted cash and cash equivalents	632	(2,203)	618
Proceeds from sale of common stock, net of registration fees	5,040	64,003	32,930
Payment of preferred dividends and return of capital	(4,442)	(7,624)	(15,226)
Net cash provided by financing activities	43,634	54,957	22,016
Effects on cash from changes in foreign currency rates	35	51	4
Net increase in cash and cash equivalents	20,817	3,896	31,566
Cash and cash equivalents-beginning of year	46,879	42,983	11,417
Cash and cash equivalents-end of year	$67,696	$46,879	$42,983

See accompanying notes to the consolidated financial statements.

Note 1. Nature of Business, Basis of Presentation and Significant Accounting Policies

Nature of Business and Basis of Presentation

FuelCell Energy, Inc. and subsidiaries (the “Company”, “FuelCell Energy”, “we”, “us”, or “our”) is a leading integrated fuel ce company with a growing global presence. We design, manufacture, install, operate and service ultra-clean, efficient and reliable stationary fuel cell power plants. Our Direct FuelCell power plants continuously produce base load electricity and usable high quality heat around the clock for commercial, industrial, government and utility customers. We have commercialized our stationary carbonate fuel cells and are also pursuing the complementary development of planar solid oxide fuel cell and other fuel cell technologies. We continue to invest in new product and market development and, as such, we are not currently generating net income from our operations. Our operations are funded primarily through cash generated from product sales, service and advanced technologies contracts, license fee income and sales of equity and debt securities. In order to continually produce positive cash flow from operations, we need to be successful at increasing annual order volume, production and in our cost reduction efforts.

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; and FCE Korea Ltd., which was formed to facilitate our business operations in South Korea. FuelCell Energy Solutions GmbH (“FCES GmbH”) which is a joint venture with Fraunhofer IKTS (Fraunhofer), was formed in the fourth quarter of fiscal year 2011 to facilitate business development in Europe. We have a 75 percent interest in FCES GmbH and accordingly, the financial results are consolidated with our financial results. Alliance Star Energy, LLC (“Alliance Star”) is a joint venture 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 the entity and accordingly, the financial results of Alliance Star are consolidated with our financial results. Versa Power Systems, Inc. ("Versa"), which includes its subsidiary Versa Power Systems, Ltd., was previously one of our sub-contractors under the Department of Energy ("DOE") large-scale hybrid project to develop a coal-based, multi-megawatt solid oxide fuel cell ("SOFC") based hybrid system. We had a 39 percent ownership interest and historically accounted for Versa under the equity method of accounting. On December 20, 2012, the Company acquired the remaining 61 percent ownership position of Versa and it is now a wholly-owned subsidiary and 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.

The Company has corrected the presentation of restricted cash balances which had been previously been included in cash and cash equivalents. As of October 31, 2012 short-term and long-term restricted cash balances in the amount of $5.3 million and $5.3 million, respectively, have been reclassified to short-term and long-term restricted cash. This revision also impacted net cash used in financing activities. There was no impact on net loss or net cash provided by (used in) operating activities as a result of the revision.

Significant Accounting Policies

Cash and Cash Equivalents and Restricted Cash

All cash equivalents consist of investments in money market funds with original maturities averaging three months or less at date of acquisition. We place our temporary cash investments with high credit quality financial institutions. We have pledged approximately $10.0 million of our cash and cash equivalents as collateral against letters of credit, banking requirements and customer contracts. At October 31, 2013 and 2012, we had outstanding letters of credit of $7.7 million and $9.6 million, respectively.

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.

Inventories are 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.

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.

Goodwill and Intangible Assets

Goodwill represents the excess of the aggregate purchase price over the fair value of the net assets acquired in a purchase business combination and is reviewed for impairment at least annually.

Accounting Standards Codification Topic 350, "Intangibles - Goodwill and Other", (ASC 350) permits the assessment of qualitative factors to determine whether events and circumstances lead to the conclusion that it is necessary to perform the two-step goodwill impairment test required under ASC 350.

Goodwill and intangible assets with indefinite lives are evaluated annually for impairment in the third quarter. Goodwill and other indefinite lived intangible assets are also reviewed for possible impairment whenever changes in conditions indicate that the fair value of a reporting unit is more likely than not below its carrying value. No impairment charges were recorded during fiscal year 2013. The Company did not have goodwill or indefinite lived intangible assets in fiscal year 2012 or 2011.

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 (ii) the sale of component part kits and spare parts to customers, (iii) site engineering and construction services, (iv) providing services under service agreements (SA), (v) the sale of electricity under PPA's as well as incentive revenue from the sale of electricity under PPAs, (vi) license fees and royalty income from manufacturing and technology transfer agreements, and (vii) customer-sponsored advanced technology projects.

The Company periodically enters into arrangements with customers that involve multiple elements. We assess such contracts to evaluate whether there are multiple deliverables, and whether the 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., Asia and Europe and from agencies of the U.S. Government.

Revenue from product,component part kits and spare part sales and construction services revenue is recorded as product sales in the consolidated statements of operations. Revenue from SA's, PPA's, license and royalty revenue and engineering services revenue is recorded as service and license revenues and revenue from customer-sponsored advanced technology research and development projects is recorded as advanced technologies contract 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, project 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 operations 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 the 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. We recognize anticipated contract losses as soon as they become known and estimable. We have recorded an estimated contract loss reserve of $0.09 million and $0.04 million as of October 31, 2013 and October 31, 2012, 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 products and 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 service agreement contracts is generally recorded ratably over the term of the SA, as our performance of routine monitoring and maintenance under these SA's are generally expected to be incurred on a straight-line basis. For SA's where we expect to have a module exchange at some point during the term (generally SA's in excess of five years), the costs of performance are not expected to be incurred on a straight-line basis, and therefore, a portion of the initial value related to the module exchange is deferred and is recognized upon such module exchange event.

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

Beginning in fiscal year 2013, license fees and royalty income have been included within revenues on the consolidated statement of operations. This change is a result of the new license agreement entered into on October 31, 2012 for our core technology and the harmonization of the existing agreements to provide fees and royalties for the manufacture of complete DFC Power Plants. Classification as revenue is reflective of our Asia market partnership and royalty based strategy and this business activity having become a significant component of non-product revenue.

Revenue from advanced technology contracts is recognized as costs are incurred less cost share plus general and administrative expenses to the extent the contract value is funded. Revenue from customer funded advanced technology 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 advanced technology contracts may extend for many years, funding is often provided incrementally on a year-by-year basis if contract terms are met and funds are authorized.

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 acceptance of our products, except for fuel cell kits. We are required 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, 2013 and October 31, 2012, the warranty reserve, which is classified in accrued liabilities on the consolidated balance sheet totaled $0.9 million and $2.3 million, respectively.

In addition to the standard product warranty, we have entered into SA's with certain customers to provide monitoring, maintenance and repair services for fuel cell power plants. Under the terms of our SA's, 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 $0.5 million and $2.2 million as of October 31, 2013 and 2012, respectively.

The Company provides for reserves on all SA's when the estimated future stack replacements and service costs exceed the remaining contract value. Reserve estimates for future costs on SA's are determined by a number of factors including the estimated remaining life of the stack, used replacement stacks available, our limit of liability on SA's 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, 2013, our reserve on SA's contracts totaled $3.7 million compared to $5.0 million as of October 31, 2012.

At the end of our SA's, customers are expected to either renew the SA or based on the Company's ability to obtain rights to title for the module, the module will be returned to the Company as the plant is no longer being monitored or having routine service performed. As of October 31, 2013, the total long-term stack asset balance was $2.9 million compared to $14.3 million as of

October 31, 2012. As of October 31, 2013, accumulated depreciation on long-term stack assets totaled approximately $2.1 million compared to $7.6 million at October 31, 2012.

During fiscal year 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. As of October 31, 2013, the accrued obligation balance related to this item was $7.3 million compared to $4.8 million as of October 31, 2012. The increase in the reserve is a result of an incremental charge due to the Master Service Agreement with POSCO Energy., LTD (POSCO Energy) having caused us to provide three replacement modules to POSCO Energy. These modules are expected to be supplied to POSCO Energy in early 2014.

The remaining accrued balance is related to modules which are expected to be deployed as field replacements and will be provided to POSCO Energy per the terms of the commitment when needed.

License Agreements and Royalty Income

We generally recognize license fees and other revenue over the term of the associated agreement. Beginning in fiscal year 2013, license fees and royalty income have been included within revenues on the consolidated statement of operations. This change is a result of the new license agreement entered into on October 31, 2012 for our core technology and the harmonization of the existing agreements to provide license fees and royalties for the value of complete DFC Power Plants sold by POSCO Energy. Classification as revenue is reflective of our Asia market partnership and royalty based strategy having become a significant component of non-product revenue. Prior to November 1, 2012, license fee and royalty income were classified as such in the accompanying Statement of Operations.

The Company receives license fees and royalty income from POSCO Energy as a result of manufacturing and technology transfer agreements entered into in 2007, 2009 and 2012. On October 31, 2012, we entered into a Cell Technology Transfer Agreement ("CTTA") with POSCO Energy. The CTTA provides POSCO Energy with the technology to manufacture Direct FuelCell power plants in South Korea and the market access to sell power plants throughout Asia for an initial term of 15 years. Under the CTTA, the Company will also provide consulting and procurement expertise in the design and construction of a manufacturing facility in South Korea that will be financed and owned by POSCO Energy. In conjunction with this agreement, a $10.0 million fee was paid to the Company on November 1, 2012. Future fees, totaling $8.0 million are payable on a milestone basis between 2014 and 2016. In conjunction with the CTTA, the Company also amended the royalty provisions in the 2007 Technology Transfer, Distribution and Licensing Agreement ("TTA") and the 2009 Stack Technology Transfer and License Agreement ("STTA") revising the royalty from 4.1 percent to 3.0 percent of POSCO Energy net sales. The reduction in the royalty rate resulted in a net fee of $6.7 million paid to the Company in January 2013.

Under the terms of the 2007 TTA, POSCO Energy manufactures balance of plant (“BOP”) in South Korea using its design, procurement and manufacturing expertise. The 2009 STTA allows POSCO Energy to produce fuel cell modules which will be combined with BOP manufactured in South Korea to complete electricity-producing fuel cell power plants for sale in South Korea. Under the STTA and prior to the CTTA, we were receiving 4.1 percent of the revenues generated from sales of fuel cell modules manufactured and sourced by POSCO Energy. The STTA also provided for an upfront license fee of $10.0 million. License fee income was recognized ratably over the 10-year term of the STTA through October 31, 2012. As a result of the CTTA, the remaining license fee income of $7.0 million is being recognized ratably over an additional 15 years.

The Company recorded license and royalty income of $4.1 million, $1.6 million and $1.7 million for the years ended October 31, 2013, 2012 and 2011, respectively, relating to the above agreements.

Deferred Revenue and Customer Deposits

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 Advanced Technologies contract revenues 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 (RSA's) and restricted stock units (RSU'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. 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 the income tax basis 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.

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, 2013, 2012 and 2011, our top five customers accounted for 88 percent, 85 percent and 66 percent, respectively, of our total annual consolidated revenue.

The percent of consolidated revenues from each customer for the years ended October 31, 2013, 2012 and 2011, respectively are presented below.

	2013		2012		2011	
POSCO Energy	54	%	76	%	44	%
Bridgeport Dominion Fuel Cell, LLC	29	%	—	%	—	%
Department of Energy	5	%	7	%	—	%
BioFuels Fuel Cells, LLC	—	%	—	%	12	%
UTS BioEnergy, LLC	—	%	2	%	10	%
Total	88	%	85	%	66	%

POSCO Energy is a related party and owns approximately 16.0 percent of the outstanding common shares of the Company.

Derivatives

We do not use derivatives for speculative purposes and through fiscal year end 2013, have not used derivatives for hedging or trading purposes. Derivative instruments consist of embedded derivatives for the change of control put redemption and an interest make-whole payment upon conversion feature embedded in the 8.0% Senior Unsecured Convertible Notes which each require bifurcation from the host debt contract and also for 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 10 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,

SA 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.

Foreign Currency Translation

The translation of FuelCell Korea Ltd’s and FCES GmbH's financial statements results in translation gains or losses, which are recorded in accumulated other comprehensive income 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 transactions are denominated in Canadian dollars. We recognized a gain of $0.4 million, a gain of $0.1 million and a loss of $1.0 million for the years ended October 31, 2013, 2012 and 2011, respectively. These amounts have been classified as other income (expense), 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 other than in December 2013, certain investors elected to convert a total of $8.0 million principal of $38.0 million in aggregate principal the 8.0% Senior Unsecured Convertible Notes. Refer to Note 20 for more information.

Recently Adopted Accounting Guidance

In July 2012, the FASB issued guidance concerning the testing of indefinite-lived intangible assets for impairment. This guidance gives an entity the option first to assess qualitative factors to determine whether the existence of events and circumstances indicates that it is more likely than not that the indefinite-lived intangible asset is impaired. If, after assessing the totality of events and circumstances, an entity concludes that it is not more likely than not that the indefinite-lived intangible asset is impaired, then the entity is not required to take further action. However, if an entity concludes otherwise, then it is required to determine the fair value of the indefinite-lived intangible asset and perform the quantitative impairment test by comparing the fair value with the carrying amount in accordance with ASC Subtopic 350-30, “Intangibles--Goodwill and Other, General Intangibles Other than Goodwill.” Under the guidance, an entity also has the option to bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to performing the quantitative impairment test. An entity will be able to resume performing the qualitative assessment in any subsequent period. The Company adopted this guidance effective November 1, 2012 and the revised standard did not have a material impact on the Company’s consolidated financial statements.

Recent Accounting Guidance Not Yet Effective

None

Note 2. Acquisitions

Versa was previously one of our sub-contractors under the DOE's large-scale hybrid project to develop a coal-based, multi-megawatt SOFC based hybrid system. Versa has been developing advanced SOFC systems for various stationary and mobile applications since 2001. Prior to December 20, 2012, we had a 39 percent ownership interest and accounted for Versa under the equity method of accounting. We recognized our share of the income or losses as income/(loss) from equity investment on the consolidated statements of operations.

On December 20, 2012, the Company acquired the remaining 61 percent ownership position of Versa in a stock transaction by exchanging approximately 3.5 million shares of its common stock for the outstanding Versa shares held by the other Versa shareholders.

The transaction has been accounted for using the acquisition method of accounting which requires, among other things, that assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date. Step-acquisition accounting guidance was applied and an impairment charge of $3.6 million relating to the previously held equity investment was recorded in the fourth quarter of 2012.

The following table summarizes the final allocation of the purchase price to the estimated fair value of the assets acquired and liabilities assumed as of the acquisition date.

Cash and cash equivalents	$357
Accounts receivable	1,133
Other current assets	23
Property, plant and equipment	480
Goodwill	4,075
In-process research and development	9,592
Other assets	101
Accounts payable	(302)
Other current liabilities	(1,492)
Deferred tax liabilities [1]	(3,377)
Other long-term liabilities	(155)
Total identifiable net assets	$10,435

(1) Classified in Long-term debt and other liabilities on the consolidated balance sheets.

Acquisition-related costs of $0.1 million were expensed as incurred. These costs were recognized in administrative and selling expenses on the statement of operations and comprehensive (loss) income for the year ended October 31, 2013.

Versa has been consolidated into the Company's financial statements as of the acquisition date. Versa receives revenue under a number of research contracts including the U.S. Department of Energy Solid State Energy Conversion Alliance (SECA) coal-based systems program and a research contract with The Boeing Company. Revenue and associated costs are recognized under advanced technologies contract revenues in the consolidated statements of operations.

Note 3. Inventories

Inventories at October 31, 2013 and 2012 consisted of the following:

	2013	2012
Raw materials	$20,599	$17,683
Work-in-process [1]	35,586	30,018
Net inventories	$56,185	$47,701

(1) Work-in-process includes the standard components of inventory used to build the typical modules or stack components that are intended to be used in future power plant orders or to service SA's. Included in Work-in-process as of October 31, 2013 and 2012 is $5.8 million and $11.3 million, respectively, of completed standard components ready to be incorporated into power plants and deployed upon receipt of customer orders or to service SA's.

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 modules 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 $1.4 million and $2.4 million at October 31, 2013 and 2012, respectively.

Note 4. Accounts Receivable

Accounts receivable at October 31, 2013 and 2012 consisted of the following:

	2013	2012
Advanced technology research:		
Amount billed	$786	$20
Unbilled recoverable costs	639	890
	1,425	910
Commercial customers:		
Amount billed	17,344	18,786
Unbilled recoverable costs	30,347	6,288
	47,691	25,074
	$49,116	$25,984

We bill customers upon project milestones being reached. We bill SA's based on the contract price and billing terms of the contracts. The majority of advanced technology contracts are with the U.S. Government. We bill the U.S. Government based on actual recoverable costs incurred, typically in the month subsequent to incurring costs. The remainder of advanced technology contracts are billed based on milestones or costs incurred. Unbilled recoverable costs relate to revenue recognized on customer contracts that have not been billed as the milestone billing date had not yet been reached. Unbilled amounts at October 31, 2013 included $17.8 million due from Dominion under the Bridgeport fuel cell park project and $6.7 million due from POSCO Energy. Accounts receivable are presented net of an allowance for doubtful accounts of $0.01 million and $0.6 million at October 31, 2013 and 2012, respectively. Commercial customers accounts receivable (including Unbilled recoverable costs) are amounts due from POSCO Energy of $17.4 million and $18.1 million at October 31, 2013 and 2012, respectively.

Note 5. Property, Plant and Equipment

Property, plant and equipment at October 31, 2013 and 2012 consisted of the following:

	2013	2012	Estimated Useful Life
Land	$524	$524	—
Building and improvements	8,679	7,587	10-26 years
Machinery, equipment and software	73,051	68,265	3-8 years
Furniture and fixtures	2,899	2,786	10 years
Power plants for use under PPAs	8,216	10,866	3-10 years
Construction in progress	9,537	7,970	
	102,906	97,998	
Less: Accumulated depreciation	(78,681)	(74,740)	
Property, plant and equipment, net	$24,225	$23,258	

Depreciation expense was $4.1 million, $5.2 million and $6.4 million for the years ended October 31, 2013, 2012 and 2011, respectively.

Note 6. Goodwill and Intangible Assets

As of October 31, 2013, the Company had goodwill of $4.1 million and intangible assets of $9.6 million associated with the Versa acquisition. Versa’s fair value of goodwill resulted from the purchase price residual value method. All identifiable assets and liabilities were deducted from the total purchase price and the difference represents the implied fair value of goodwill. The intangible asset represents indefinite lived in-process research and development for which the fair value was determined utilizing the cost approach which estimated the costs to replicate cumulative research and development efforts associated with the development of SOFC stationary power generation and had a 10 percent obsolescence factor applied to account for improvements that could be made on the current technology.

The Company has completed a qualitative assessment as of July 31, 2013 and has determined that the goodwill and indefinite-lived intangible assets recorded as a result of the Versa acquisition and are included within the Versa reporting unit are not impaired.

Note 7. Other Current Assets

Other current assets at October 31, 2013 and 2012 consisted of the following:

	2013	2012
Advance payments to vendors [1]	$4,235	$2,261
Debt issuance costs [2]	494	—
Notes receivable [3]	478	475
Prepaid expenses and other [4]	6,072	1,991
Total	$11,279	$4,727

(1) Advance payments to vendors relate to inventory purchases.

(2) Represents the current portion of debt issuance costs capitalized relating to the convertible debt issuance and will be amortized over the term of the convertible notes which is five years.

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

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

Note 8. Other Assets, net

Other assets, net at October 31, 2013 and 2012 consisted of the following:

	2013	2012
Long-term stack residual value [1]	$2,898	$14,316
Debt issuance costs [2]	1,721	—
Other [3]	846	1,870
Other assets, net	$5,465	$16,186

(1) Relates to unplanned module exchanges performed under the Company’s SA's. In circumstances where the useful life of the module extends beyond the contractual term of the SA and the Company retains title for the module from the customer upon expiration or non-renewal of the SA, the cost of the unplanned module exchanges is recorded as a long term asset and is depreciated over its expected life. If the Company does not obtain rights to title from the customer, the cost of the module is expensed at the time of the module exchange. The reduction in the balance at October 31, 2013 is a result of costs of $8.4 million primarily related to the provision of fuel cell stacks to POSCO Energy upon execution of Master Service Agreement with POSCO Energy to service the installations under the ongoing service contract. Additions during the year ended October 31, 2013 and 2012 were $0.5 million and $4.4 million, respectively. Accumulated depreciation was $2.1 million and $7.6 million for the years ended October 31, 2013 and 2012 respectively.

(2) Represents the long-term portion of debt issuance costs capitalized relating to the convertible debt issuance and will be amortized over the term of the convertible notes, which is five years.

(3) Includes security deposits and notes receivable.

Note 9. Accrued Liabilities

Accrued liabilities at October 31, 2013 and 2012 consisted of the following:

	2013	2012
Accrued payroll and employee benefits [1]	$4,647	$3,907
Accrued contract and operating costs [2]	87	39
Reserve for product warranty costs [3]	860	2,317
Reserve for service agreement costs [4]	4,186	7,222
Reserve for B1200 repair and upgrade program and modules due POSCO Energy [5]	7,267	4,753
Accrued taxes, legal, professional and other [6]	4,865	2,027
	$21,912	$20,265

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(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.

(3) Activity in the reserve for product warranty costs during the year ended October 31, 2013 and 2012 included additions for estimates of potential future warranty obligations of $1.2 million and $3.1 million, respectively, on contracts in the warranty period and reserve reductions related to actual warranty spend and reversals to income of $0.3 million and $1.9 million, respectively, as contracts progress through the warranty period or are beyond the warranty period.

(4) The Company provides for reserves on all SA agreements when the estimated future stack replacement and service costs 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, 2013, our reserve on SA contracts totaled $3.7 million compared to $5.0 million as of October 31, 2012. If minimum output falls below the contract requirement, we may be subject to performance penalties and/ 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 a reserve for performance guarantees based on historical fleet performance which totaled $0.5 million and $2.2 million as of October 31, 2013 and 2012, respectively.

(5) During fiscal year 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. The program commenced in fiscal year 2011 and with the exception of providing replacement modules to POSCO Energy, was concluded during fiscal year 2012. The Company recorded an initial charge of approximately $8.8 million which was recorded as cost of product sales and revenues on the consolidated statements of operations. The increase in the reserve as of October 31, 2013 compared to the prior year is a result of an incremental charge due to the terms of the Master Service Agreement with POSCO Energy requiring us to provide three replacement modules due to POSCO Energy.

(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

Debt at October 31, 2013 and 2012, consisted of the following:

	2013	2012
Revolving credit facility	$6,500	$4,000
Senior Unsecured Convertible Notes	38,000	—
Connecticut Development Authority Note	3,246	3,466
Connecticut Clean Energy Fund Note	—	847
Connecticut Clean Energy and Finance Investment Authority Note	5,744	—
Capitalized lease obligations	497	234
Total debt	$53,987	$8,547
Less: Unamortized debt discount [(1)]	(3,106)	—
	50,881	8,547
Less: Current portion of long-term debt	(6,931)	(5,161)
Long-term debt	$43,950	$3,386

(1) The debt discount recorded in connection with the issuance of the Company's unsecured convertible notes relates to the fair value of the embedded derivatives at June 25, 2013 and is recorded on the consolidated balance sheets as a reduction to associated debt balance. The Company is amortizing the debt discount to interest expense over the term of the debt.

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, 2013 are as follows:

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Year 1	430
Year 2	381
Year 3	313
Year 4	256
Year 5	40,363
Thereafter	5,744
	$47,487

As of October 31, 2013, the Company has an $8.0 million revolving credit facility with JPMorgan Chase Bank, N.A. and the Export-Import Bank of the United States. The revolver was increased from $5.0 million on April 12, 2013. The credit facility is 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 and the current expiration date is April 2, 2014. 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, 2013, the outstanding amount owed under this facility was $6.5 million and is classified as Current portion of long-term debt on the consolidated balance sheets.

On June 25, 2013, the Company closed an offering of $38.0 million in aggregate principal amount of 8.0% Senior Unsecured Convertible Notes ("Notes"). Under the terms of the Notes, interest is payable semi-annually in arrears on December 15 and June 15 of each year, beginning December 15, 2013. The notes will mature on June 15, 2018, unless earlier redeemed, repurchased or converted. The Notes are convertible into shares of the Company's common stock at a conversion rate of 645.1613 shares of common stock per $1,000 principal amount of convertible notes, equivalent to a conversion price of approximately $1.55 per share of common stock plus a "make-whole" equivalent to the shorter of three years of interest payments or interest payments from the date of conversion through the maturity date. The net proceeds of the offering to the Company were approximately $35.5 million, after deducting underwriting discounts, commissions and offering expenses. Financing costs of $2.5 million associated with this debt offering are being amortized over the term of the debt. At October 31, 2013, these costs are capitalized in Other current assets for the current portion and Other assets, net for the long-term portion.

We evaluated the instrument for embedded derivatives and determined the change of control put redemption and an interest make-whole payment upon conversion feature embedded in the Notes require bifurcation from the Notes. The aggregate fair value of these derivatives at June 25, 2013 was $3.2 million. The aggregate fair value of these derivatives at October 31, 2013 is $4.7 million. The derivatives are included in Long term debt and other liabilities on the consolidated balance sheets and any change to the fair values are recorded in operations.

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 Connecticut Development Authority loan was $3.2 million and $3.5 million for the periods ended October 31, 2013 and 2012, respectively.

On March 5, 2013 the Company closed on a new long-term loan agreement with the Connecticut Clean Energy and Finance Investment Authority (CEFIA) totaling $5.9 million in support of the Bridgeport project. The loan agreement carries an interest rate of 5.0% and principal repayments will commence on the eighth anniversary of the project's provisional acceptance date in forty eight equal monthly installments. Outstanding amounts are secured by future cash flows from the Bridgeport contracts. Advances of $4.8 million were made under the CEFIA loan during

fiscal year 2013. The Connecticut Clean Energy Fund Note in the amount outstanding of $0.9 million rolled into the new CEFIA Note. The outstanding balance on the CEFIA Note as of October 31, 2013 was $5.7 million.

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

Note 11. Shareholders' (Deficit) Equity

Common Stock

On December 20, 2012, the Company issued 3.5 million shares of common stock for the remaining 61 percent of outstanding Versa shares.

On March 27, 2012, the Company completed a public offering of 23 million shares of common stock, including 3.0 million shares sold pursuant to the full exercise of an over-allotment option previously granted to the underwriters. All shares were offered by the Company at a price of $1.50 per share. Total net proceeds to the Company were approximately $32.0 million.

On April 30, 2012, POSCO Energy purchased, and the Company issued, 20 million shares of common stock at a price of $1.50 per share for proceeds of $30.0 million. The cash payment was received on May 2, 2012.

The Company may sell common stock on the open market from time to time to raise funds in order to pay obligations related to the Company's outstanding Series I and Series B preferred shares and the 8.0% Senior Unsecured Convertible Notes. During fiscal year 2013 and 2012, the Company sold 4,295,800 and 2,012,506 shares, respectively of the Company's common stock at prevailing market prices through periodic trades on the open market and raised approximately $5.6 million and $2.0 million, respectively, net of fees.

Warrant Issuance

On September 4, 2013, the Company entered into a co-marketing agreement with NRG Energy ("NRG") for the marketing and sales of the Company's power plants. The terms of the agreement included the issuance of warrants to NRG that permit NRG to purchase up to 5.0 million shares of the Company's common stock at predetermined prices based on attaining minimum sales goals. There are three tranches of warrants with varying strike prices, varying minimum levels of qualifying orders, and different vesting and expiration dates. The weighted average strike price for all 5.0 million warrants is $2.18. The qualifying order vesting dates range from March 2014 through September 2015 and the expiration dates range from February 2017 through August 2018. Any costs associated with the warrants will be recorded as a reduction of potential future revenue recorded under the arrangement. No warrants were vested as of October 31, 2013.

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, 2013 and 2012, there were 64,020 shares of Series B Preferred Stock issued and outstanding, with a carrying value of $59.9 million. 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, 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.

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, 2013, 2012 and 2011. There were no cumulative unpaid dividends at October 31, 2013 and 2012.

- 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, 2013 and 2012, the Series B Preferred Stock had a Liquidation Preference of $64.0 million.

- 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 canceled.

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, 2013) 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 defined, 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 certain dilutive transactions with holders of 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, as defined.

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.

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 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 of Cdn. $750,000 annually 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.

The modified terms of the Series 1 Preferred Shares provides for payments of (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. 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.

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 of $9.0 million represents a return to the preferred stockholder and treated in a manner similar to the treatment of dividends paid on preferred stock. Accordingly, this amount was subtracted from net loss to arrive at loss to common stockholders in the calculation of earnings per share.

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 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 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 Cdn. $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 Company made its scheduled payments of Cdn. $1.3 million and Cdn. $4.4 million during fiscal year 2013 and 2012, respectively, under the terms of the modified agreement, including the recording of interest expense of approximately Cdn. $2.0 million. As of October 31, 2013 and 2012, the carrying value of the Series 1 Preferred shares was Cdn. $15.0 million ($14.3 million USD) and Cdn. $14.2 million ($14.2 million USD), respectively 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.
- 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.
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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;
- 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. 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 2020.

The variable dividend is valued using a Monte Carlo simulation model.

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, 2013 and 2012 was $0.7 million.

Note 13. Segment Information

We are engaged in the development, design, production, sale and servicing 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.

Revenues, by geographic location (based on the customer’s ordering location) for the years ended October 31, 2013, 2012 and 2011 was as follows:

	2013	2012	2011
United States	$80,199	$26,929	$66,531
South Korea	101,928	92,163	53,256
England	2,036	1,061	1,639
Indonesia	—	147	675
Germany	1,503	128	290
Canada	1,912	175	156
Spain	80	—	—
Japan	—	—	23
Total	$187,658	$120,603	$122,570

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 ("RSUs"), 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 4 years and expire 10 years from the date of grant. During the second quarter of fiscal year 2013, the Company established an international award program to provide RSUs for the benefit of certain employees outside the United States. As of October 31, 2013, there were 1,014,989 shares available for grant. As of October 31, 2013, equity awards outstanding consisted of incentive stock options, nonstatutory stock options, RSAs and RSUs. The 1998 Equity Incentive Plan remains in effect only to the extent of awards outstanding under the plan as of October 31, 2013.

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:

	2013	2012	2011
Expected life (in years)	7.0	7.0	7.0
Risk free interest rate	1.2 %	1.6 %	3.0 %
Volatility	76.5 %	75.5 %	73.0 %
Dividends yield	— %	— %	— %

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:

	2013	2012	2011
Cost of revenues	$584	$587	$841
General and administrative expense	1,325	1,182	1,275
Research and development expense	308	280	457
Total share-based compensation	$2,217	$2,049	$2,573

The following table summarizes our stock option activity for the year ended October 31, 2013:

Options	Shares	Weighted-Average Option Price
Outstanding at October 31, 2012	3,120,456	$6.96
Granted	279,746	$0.94
Cancelled	(218,738)	$7.05
Outstanding at October 31, 2013	3,181,464	$6.42

The weighted average grant-date fair value per share for options granted during the years ended October 31, 2013, 2012 and 2011 was $0.66, $0.89 and $1.38, respectively. There were no options exercised in fiscal 2013, 2012 or 2011.

The following table summarizes information about stock options outstanding and exercisable at October 31, 2013:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number exercisable	Weighted Average Exercise Price
$0.26 — $5.10	1,221,787	7.7	$1.83	1,081,913	$1.95
$5.11 — $9.92	1,274,779	3.4	$8.09	1,274,779	$8.09
$9.93 — $14.74	675,398	1.8	$11.46	675,398	$11.46
$14.75 — $19.56	9,500	0.1	$16.30	9,500	$16.30
	3,181,464	4.7	$6.43	3,041,590	$6.68

There was no intrinsic value for options outstanding and exercisable at October 31, 2013.

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During fiscal year 2013, we granted 2,934,860 RSAs and RSUs to employees. RSA and RSU expense is based on the fair value of the award at the date of grant and is amortized over the vesting period, which is generally four years. The weighted average grant-date fair value of RSAs and RSUs were $0.94 per share. During the year, 970,917 RSA's and RSU's vested and 53,192 RSAs and RSUs were cancelled. At October 31, 2013, there were 5,036,104 outstanding RSAs and RSUs with an average remaining life of 2.7 years and an aggregate intrinsic value of $6.2 million.

As of October 31, 2013, total compensation cost related to nonvested stock options and RSAs not yet recognized was $0.1 million and $4.8 million, respectively, which is expected to be recognized over the next 0.4 and 2.7 years, respectively, on a weighted-average basis.

Stock may be issued to employees as part of the annual incentive bonus. During fiscal year 2012 and 2011, we issued 550,355 and 353,543 shares of common stock, respectively, in lieu of cash bonuses, with values of $0.6 million and $0.7 million, respectively, to fulfill the accrued obligation from each of the prior fiscal years. During fiscal 2013, the bonus was paid in cash to fulfill the accrued obligation from fiscal 2012.

Employee Stock Purchase Plan

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, 2013, there were 549,584 shares of common stock available for issuance under the ESPP.

ESPP activity for the fiscal year ended October 31, 2013 was as follows:

Options	Number of Shares
Balance at October 31, 2012	774,373
Issued @ $0.79	(224,789)
Outstanding at October 31, 2013	549,584

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:

	2013		2012		2011	
Expected life (in years)	0.5		0.5		0.5	
Risk free interest rate	15.0	%	7.0	%	0.2	%
Volatility	75.0	%	92.0	%	90.5	%
Dividends yield	—	%	—	%	—	%

The weighted-average fair value of shares issued under the ESPP during fiscal year 2013 was $0.79 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. 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. After suspending our matching contribution in February 2009, we commenced matching contributions of 1 percent in January 2012 and increased the amount to 2 percent in January 2013. Matching contributions under the Plan were $0.3 million and $0.1 million for the fiscal years ended October 31, 2013 and 2012, respectively.

Note 15. Income Taxes

The components of loss from continuing operations before income taxes for the fiscal years ended October 31, 2013, 2012, and 2011 were as follows:

	2013	2012	2011
U.S.	$(31,044)	$(35,535)	$(46,365)
Foreign	(3,904)	(302)	408
Loss before income taxes	$(34,948)	$(35,837)	$(45,957)

There was current income tax expense of $0.4 million, $0.07 million and $0.02 million related to foreign withholding taxes and income taxes in South Korea and no deferred federal income tax expense (benefit) for each of the years ended October 31, 2013, 2012 and 2011. Franchise tax expense, which is included in administrative and selling expenses, was $0.2 million, $0.2 million and $0.1 million for the years ended October 31, 2013, 2012and 2011, respectively.

The reconciliation of the federal statutory income tax rate to our effective income tax rate for the years ended October 31, 2013, 2012 and 2011 was as follows:

	2013	2012	2011
Statutory federal income tax rate	(34.0)%	(34.0)%	(34.0)%
Increase (decrease) in income taxes resulting from:			
State taxes net of Federal benefits	(1.7)%	(2.6)%	(2.3)%
Foreign withholding tax	0.9 %	0.2 %	0.3 %
Net operating loss adjustment and true-ups	0.1 %	(34.9)%	1.7 %
Nondeductible expenditures	0.8 %	1.2 %	1.9 %
Change in state tax rate	10.5 %	(6.8)%	(2.4)%
Other, net	4.1 %	(0.1)%	0.3 %
Valuation allowance	20.3 %	77.2 %	34.8 %
Effective income tax rate	1.0 %	0.2 %	0.3 %

Our deferred tax assets and liabilities consisted of the following at October 31, 2013 and 2012:

	2013	2012
Deferred tax assets:		
Compensation and benefit accruals	$6,452	$5,745
Bad debt and other reserves	1,841	2,938
Capital loss and tax credit carry-forwards	13,582	14,396
Investment in Versa	—	4,068
Net operating losses (domestic and foreign)	228,154	219,496
Deferred license revenue	8,033	2,533
Lower of cost or market inventory reserves	509	857
Investment in partnerships	419	—
Accumulated depreciation	625	257
Gross deferred tax assets:	259,615	250,290
Valuation allowance	(259,615)	(249,294)
Deferred tax assets after valuation allowance	—	996
Deferred tax liability:		
Investment in partnerships	—	(996)
In process research and development	(3,377)	—
Gross deferred tax liability	(3,377)	(996)
Net deferred tax liability	$(3,377)	$—

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 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.

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In connection with our acquisition of Versa we recorded a deferred tax liability for IPR&D, which has an indefinite life. Accordingly, we do not consider it to be a source of taxable income in evaluating the recoverability of our deferred tax assets.

At October 31, 2013, we had federal and state NOL carryforwards of $631.0 million and $372.0 million, respectively, for which a portion of the NOL has not been recognized in connection with share-based compensation. The Federal NOL carryforwards expire in varying amounts from 2020 through 2033 while state NOL carryforwards expire in varying amounts from 2013 through 2033. Additionally, we had $9.9 million of state tax credits available, of which $1.0 million expires in 2018. The remaining credits do not expire.

Certain transactions involving the Company's beneficial ownership occurred in fiscal 2013 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 2013 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 fiscal year 2013 under Section 382. The acquisition of VERSA triggered a Section 382 ownership change which will limit the future usage of some of the Federal and state NOLs. The Federal and state NOLs that are non 382-limited are included in the NOL deferred tax assets as disclosed.

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, 2013 and 2012 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.

We file income tax returns in the U.S. and various states, primarily Connecticut and California, as well as income tax returns required internationally for Korea and Germany. 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, 2013, 2012 and 2011 was as follows:

	2013	2012	2011
Numerator			
Net loss	$(35,319)	$(35,906)	$(45,974)
Net loss attributable to noncontrolling interest	961	411	261
Adjustment for modification of redeemable preferred stock of subsidiary	—	—	(8,987)
Preferred stock dividend	(3,200)	(3,201)	(3,200)
Net loss to common shareholders	$(37,558)	$(38,696)	$(57,900)
Denominator			
Weighted average basic common shares	186,525,001	165,471,261	124,498,073
Effect of dilutive securities (1)	—	—	—
Weighted average diluted common shares	186,525,001	165,471,261	124,498,073
Basic loss per share	(0.20)	(0.23)	(0.47)
Diluted loss per share (1)	(0.20)	(0.23)	(0.47)

(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, convertible preferred stock and convertible notes. At October 31, 2013, 2012 and 2011, there were options to purchase 3.2 million, 3.1 million and 3.3 million shares of common stock, respectively. On September 4, 2013, the Company entered into a co-marketing agreement with NRG for the marketing and sales of the

Company's power plants which include the issuance of warrants to purchase up to 5.0 million shares of the Company's common stock. On January 13, 2011 we issued 10.2 million warrants in connection with a registered direct offering. Each warrant was exercisable for 1 share of common stock. The warrants had an exercise price of $2.29 per share and were exercisable beginning six months and one day after the initial closing date and expired in the fourth quarter of 2012.

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, 2013 and 2012, we had capital lease obligations of $0.5 million and $0.2 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 $1.6 million, $1.6 million and $1.5 million for the fiscal years ended October 2013, 2012 and 2011, respectively.

Non-cancelable minimum payments applicable to operating and capital leases as of October 31, 2013 were as follows:

	Operating Leases	Capital Leases
2014	$1,997	$218
2015	1,421	164
2016	715	85
2017	379	16
2018	238	14
Thereafter	—	—
Total	$4,750	$497

Service and warranty agreements

Under the provisions of our SAs, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Under the terms of our SA, 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 and/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, based on actual historical fleet performance, which totaled $0.5 million and $2.2 million as of October 31, 2013 and 2012, respectively, and is recorded in Accrued Liabilities.

Our reserves on service agreement contracts, excluding the reserve for performance guarantees, totaled $3.7 million and $5.0 million as of October 31, 2013 and 2012, 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.

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:

	Year Ended October 31,		
	2013	2012	2011
Cash interest paid	$280	$302	$182
Income taxes paid	17	—	17
Noncash financing and investing activity:			
Common stock issued for employee annual incentive bonus	—	550	707
Common stock issued for Employee Stock Purchase Plan in settlement of prior year accrued employee contributions	85	84	58
Common stock issued for acquisition of Versa	3,562	—	—
Adjustment for modification of redeemable preferred stock of subsidiary	—	—	8,987
Accrued sale of common stock, cash received in a subsequent period	509	$—	$—

Note 19. Quarterly Information (Unaudited)

Selected unaudited financial data for each quarter of fiscal year 2013 and 2012 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.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Year ended October 31, 2013					
Revenues	$36,358	$42,436	$53,707	$55,157	$187,658
Gross (loss) profit	(2,311)	2,314	4,522	2,597	7,122
Loss on operations	(11,070)	(7,197)	(4,594)	(6,952)	(29,813)
Net loss	(11,879)	(7,629)	(5,814)	(9,997)	(35,319)
Preferred stock dividends	(800)	(800)	(800)	(800)	(3,200)
Net loss to common shareholders	(12,481)	(8,165)	(6,412)	(10,500)	(37,558)
Net loss to common shareholders per basic and diluted common share [1]	$(0.07)	$(0.04)	$(0.03)	$(0.06)	$(0.20)
Year ended October 31, 2012					
Revenues	$31,337	$24,153	$29,693	$35,420	$120,603
Gross profit (loss)	2,104	201	(2,738)	878	445
Loss on operations	(5,443)	(7,757)	(10,511)	(8,418)	(32,129)
Net loss	(6,014)	(8,363)	(10,010)	(11,519)	(35,906)
Preferred stock dividends	(800)	(801)	(800)	(800)	(3,201)
Net loss to common shareholders	(6,743)	(9,093)	(10,722)	(12,138)	(38,696)
Net loss to common shareholders per basic and diluted common share [1]	$(0.05)	$(0.06)	$(0.06)	$(0.07)	(0.23)

(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.

Note 20. Subsequent Events

In December 2013, certain investors elected to convert a total of $8.0 million principal of $38.0 million in aggregate principal the 8.0% Senior Unsecured Convertible Notes. Under the terms of the Notes they are convertible into shares of the Company's common

stock at a conversion rate of 645.1613 shares of common stock per $1,000 principal amount of convertible notes, equivalent to a conversion price of approximately $1.55 per share of common stock plus a "make-whole" payment in regard to interest. As a result of these conversions, the Company retired $8.0 million of outstanding principal and issued 6,283,385 shares of common stock.

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, 2013, 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, 2013 based on the specified criteria.

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

The information requires by this Item 10, with respect to our executive officers, is included in Part I of the Annual Report on Form 10-K. The other information required by this Item 10 is incorporated by reference to the Company's 2013 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 2013 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 2013 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 2013 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 2013 Proxy Statement to be filed with the SEC within 120 days from fiscal year end.

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.

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EXHIBITS TO THE 10-K

Exhibit No.	Description
3.1	Certificate of Incorporation of the Registrant, as amended, July 12, 1999 (incorporated by reference to exhibit of the same number contained in the Company's Form 8-K dated September 21, 1999)
3.2	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)
3.3	Certificate of Amendment of the Certificate of Incorporation of the Registrant (incorporated by reference to exhibit 3.3 of the Company's Form 10-K dated January 14, 2013).
3.4	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).
4.4	Senior Indenture by and between the Company, as Issuer, and U.S. Bank National Association, as Trustee, dated as of June 25, 2013 (incorporated by reference to Exhibit 4.1 of the Company's Form 8-K, dated June 25, 2013).
4.5	First Supplemental Indenture, dated as of June 25, 2013, between the Company and U.S. Bank National Association, as Trustee, with respect to the 8% Senior Convertible Notes Due 2018 (incorporated by reference to Exhibit 4.2 of the Company's Form 8-K, dated June 25, 2013).
4.6	Form of 8% Senior Convertible Notes Due 2018 of the Company (incorporated by reference to Exhibit 4.3 of the Company's Form 8-K, dated June 25, 2013).
10.1	** Alliance Agreement between FuelCell Energy, Inc. and POSCO Energy, 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 Energy, 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).

10.3	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).

Exhibit No.	Description
10.4	**Stack Technology Transfer and License Agreement dated as of October 27, 2009, by and between FuelCell Energy, Inc. and POSCO Energy (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 Energy (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	*Amended and Restated 2010 Equity Incentive Plan (incorporated by reference to the exhibit of the same number contained in the Company's Form 8-K dated March 21, 2012).
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)

Exhibit No.	Description
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 March 21, 2012 and effective as of January 1, 2012 between FuelCell Energy, Inc. and Anthony Rauseo, Chief Operating Officer (incorporated by reference to the exhibit of the same number contained in the Company’s Form 8-K, dated March 31, 2012).
10.68	*Employment Agreement, dated March 21, 2012 and effective as of January 1, 2012 between FuelCell Energy, Inc. and Michael Bishop, Chief Financial Officer (incorporated by reference to the exhibit of the same number contained in the Company's Form 8-K, dated March 21, 2012).
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, 2012, between the Company and JPMorgan Chase Bank, N.A. (incorporated by reference to the exhibit of the same number contained in the Company's 10-K for the year ended October 31, 2011).
10.71	Securities Exchange Agreement dated December 20, 2012 by and among the Company and Versa Power Systems Inc., and the stockholders of Versa Power Systems Inc., (incorporated by reference to the Company's Form 8-K dated December 20, 2012).
10.72	Purchase and Sale Contract dated October 31, 2012 by and between POSCO Energy Co., LTD. and the Company (incorporated by reference to the Company's Form 8-K dated as of October 31, 2012).
10.73	Cell Technology Transfer and License Agreement dated October 31, 2012 by and between the Company and POSCO Energy, Co., LTD (incorporated by reference to the Company's Form 8-K dated as of October 31, 2012 and the Company's Form 8-K/A dated as of January 7, 2013).

Exhibit No.	Description
10.74	Amendment to Technology Transfer Distribution and Licensing Agreement dated as of February 7, 2007 and the Stack Technology Transfer License Agreement dated as of October 27, 2009, each by and between the Company and POSCO Energy, Co., LTD (incorporated by reference to the Company's Form 8-K dated as of October 31, 2012).
10.75	Underwriting Agreement, dated as of March 22, 2012, among the Company, Lazard Capital Markets LLC, Stifel, Nicolaus & Company, Incorporated and FBR Capital Markets & Co. (incorporated by reference to exhibit 1.1 of the Company's Form 8-K dated March 22, 2012).
10.76	Securities Purchase Agreement, dated April 30, 2012, by and between the Company and POSCO Energy Co., Ltd, dated April 30, 2012 (incorporated by reference to exhibit 10.1 of the Company's Form 8-K dated April 30, 2012).
10.77	Underwriting Agreement, dated as of June 19, 2013, between the Company and Lazard Capital Markets LLC as representative of the several underwriters named therein (incorporated by reference to Exhibit 10.1 of the Company’s Form 8-K, dated June 20, 2013).
10.78	Export Loan Agreement, dated as of April 3, 2013, between the Company and JPMorgan Chase Bank, N.A. (incorporated by reference to Exhibit 10.61 of the Company’s Form 8-K, dated April 12, 2013).
10.79	Promissory Note of the Company, dated April 3, 2013, to JPMorgan Chase Bank, N.A. (incorporated by reference to Exhibit 10.64 of the Company’s Form 8-K, dated June 25, 2013).
10.80	Loan Agreement, dated as of March 5, 2013, between Clean Energy Finance and Investment Authority, as Lender, and the Company, as Borrower (incorporated by reference to Exhibit 10.69 of the Company’s Form 8-K, dated March 12, 2013).
10.81	Security Agreement, dated March 5, 2013, by the Company in favor of the Clean Energy Finance and Investment Authority (incorporated by reference to Exhibit 10.70 of the Company’s Form 8-K, dated March 12, 2013).
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

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Exhibit No.	Description
101.SCH#	XBRL Schema Document
101.INS#	XBRL Instance Document
101.CAL#	XBRL Calculation Linkbase Document
101.LAB#	XBRL Labels Linkbase Document
101.PRE#	XBRL Presentation Linkbase Document
101.DEF#	XBRL Definition Linkebase Document

The exhibits marked with the section symbol (#) are interactive data files. Pursuant to Rule 406T of Regulation S-T, these interactive data files (i) are not deemed filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, are not deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, irrespective of any general incorporation language included in any such filings, and otherwise are not subject to liability under these sections; and (ii) are deemed to have complied with Rule 405 of Regulation S-T ("Rule 405") and are not subject to liability under the anti-fraud provisions of the Section 17(a)(1) of the Securities Act of 1933, Section 10(b) of the Securities Exchange Act of 1934 or under any other liability provision if we have made a good faith attempt to comply with Rule 405 and, after we become aware that the interactive data files fail to comply with Rule 405, we promptly amend the interactive data files.

* 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 6, 2014.

FUELCELL ENERGY, INC.

/s/ Arthur A. Bottone
Arthur A. Bottone
President, Chief Executive Officer and Director

Dated: January 6, 2014

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

Signature	Capacity	Date
/s/ Arthur A. Bottone Arthur A. Bottone	President, Chief Executive Officer and Director (Principal Executive Officer)	January 6, 2014
/s/ Michael S. Bishop Michael S. Bishop	Senior Vice President, Chief Financial Officer, Treasurer and Corporate Secretary (Principal Accounting and Financial Officer)	January 6, 2014
/s/ Richard A. Bromley Richard A. Bromley	Director	January 4, 2014
/s/ James H. England James H. England	Director	January 1, 2014
/s/ James D. Gerson James D. Gerson	Director	January 1, 2014
/s/ William A. Lawson William A. Lawson	Director	January 4, 2014
/s/ John A. Rolls John A. Rolls	Director — Chairman of the Board	January 2, 2014
/s/ Togo Dennis West Jr. Togo Dennis West Jr.	Director	January 2, 2014

INDEX OF EXHIBITS

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