

*fuelcell*energy



SUPPLY



RECOVERY



STORAGE

FuelCell Energy (NASDAQ: FCEL) delivers proprietary power solutions that enable economic prosperity with the clean and affordable **supply**, **recovery** and **storage** of energy. Serving utilities, industry and large municipal power users on three continents with solutions that include utility-scale and on-site power generation, carbon capture, local hydrogen production for transportation and industry, and energy storage, FuelCell Energy is a global leader with designing, manufacturing, installing, developing, operating and maintaining environmentally responsible fuel cell power solutions.

Energy **SUPPLY**

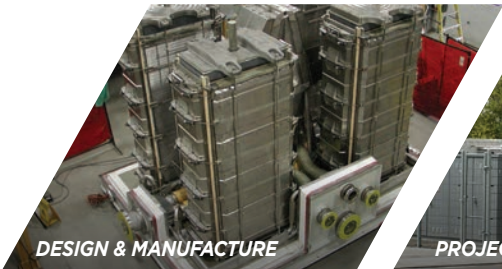


Energy **RECOVERY**



Energy **STORAGE**





>50 sites
operating on
3 continents

> 5 billion kWh's
ultra-clean
power
generated

Versatile
global
technology
platform

Robust
intellectual
property
portfolio

DEAR SHAREHOLDERS,

The world needs cleaner and affordable answers to meet our current and future energy needs; choices that are easy to site, support economic development, and provide savings to energy consumers. FuelCell Energy delivers proprietary power solutions that enable economic value with the clean and affordable **supply**, **recovery** and **storage** of energy.

Our innovative SureSource power plants are unique in their ability to generate predictable and clean energy where the power is used. We use chemistry instead of combustion to generate energy. Our solutions provide a comprehensive and complete energy generation solution with predictable clean power, located next to existing electrical substations or on-site applications. This minimizes or even avoids transmission, which is important to ratepayers and communities as transmission is costly, inefficient as power is lost in transmission and not always welcome in certain locations. The ability to install clean and affordable power generation near where the power is used addresses numerous issues and challenges facing utilities, government officials and communities. This **supply** of energy includes utility grid support as well as on-site installations supplying electricity and heat directly to the user.

Our solutions for **recovery** include carbon capture and pipeline applications. The carbonate fuel cell technology used in our SureSource solutions is distinctive and novel amongst different technologies in its ability to efficiently concentrate and capture CO₂ as a side reaction of the regular fuel cell power generation process. This is the novelty of our approach, efficiently capturing CO₂ while simultaneously producing power with our scalable SureSource Capture solution that generates a return on investment from the sale of electricity. For pipeline applications, one of our SureSource Recovery installations began commercial operations during fiscal 2016 at a utility owned natural gas let-down station generating very high electrical efficiency by harnessing energy from the gas let-down process.

Efficient and affordable long-duration energy **storage** would be welcome by utilities to smooth the interplay of intermittent power supply and demand. We are advancing our storage solution

Utility-owned on-site
Combined Heat & Power
(CHP) in Germany

Enhancing energy resiliency
for Pfizer with clean and
affordable on-site power



utilizing hydrogen as an energy carrier. Hydrogen is attractive for storage as it can be compressed, safely stored for long periods of time and duration can be extended for only negligible cost. Easy-to-site and economical energy storage is a large potential market opportunity that we believe our solution is well-suited to address.

We made progress on many fronts in 2016 ranging from closing and commissioning a two-plant project with global pharmaceutical leader, Pfizer, entering into a fuel cell carbon capture development agreement with ExxonMobil and announcing our first demonstration carbon capture plant at a Southern Company owned coal/gas-fired power plant. We also began the installation of our first SureSource 4000, a configuration with absolutely extraordinary electrical efficiency that exceeds combined cycle gas plants of much larger scale.

Delivering clean and affordable power where needed

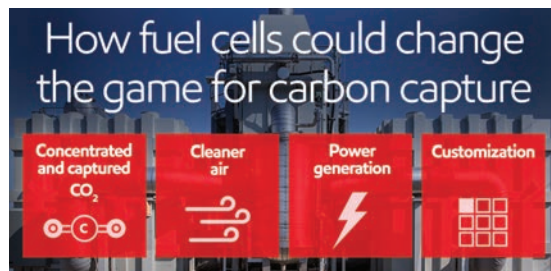
Innovation is a key driver of our efforts, including innovations to our core product offering, extending our breadth of offerings and expanding project financing alternatives. An example of product innovation is our recently introduced SureSource 4000 with a *delivered* electrical efficiency of approximately 60 percent. The most efficient combined cycle gas power plants can generate similar electrical efficiency though due to their

emissions, scale and noise, they are difficult to site near demand and homes, necessitating transmission lines. Transmission adds cost for ratepayers, siting challenges for utilities and results in line losses of 6-9 percent which is why our delivered electrical efficiency is so extraordinary. This 3.7 megawatt solution is scalable and can be easily sited next to or near existing electrical substations, adding power precisely where needed. This high level of electrical efficiency reduces the overall cost profile as we continue to enhance affordability in every manner that we can.

Our fuel cell projects provide a comprehensive solution. Generating predictable power near where it is used enhances resiliency, a key tenet of energy policy. Our price per kilowatt hour is grid competitive in the markets we are pursuing and minimizing or avoiding transmission entirely represents further savings to ratepayers. The high overall operating efficiency delivers significant greenhouse gas emission reductions compared to other forms of continuous power generation, and criteria pollutant emissions such as smog producing NOx, acid rain inducing SOx, and particulate matter are virtually non-existent, which supports environmental policy. Finally, fuel cell projects are uniquely positioned to provide local and State level economic development benefits to a much greater degree than other forms of clean distributed generation. Projects are often located within urban centers, including on brownfield sites, generating a host of local, state

Clean, affordable and continuous power for a city

Uses only 1.5 acres of land on a repurposed brownfield site, providing state and local taxes and urban re-development.



and Federal tax revenue that intermittent renewable power generation can't match. Evaluating fuel cell projects in their totality results in a compelling value proposition that addresses energy, environmental and economic policy goals.

Scalable Fuel Cell Carbon Capture

Our core carbonate fuel cell technology is very versatile and our innovative carbon capture solution is leveraging this versatility in a variety of novel and exciting ways. In 2016, we made significant progress with commercializing fuel cell carbon capture. This began with announcing an agreement with ExxonMobil to pursue fuel cell carbon capture together. As a global leader in carbon sequestration, ExxonMobil is an ideal partner to be working with to advance clean, scalable and affordable carbon capture to address global carbon emissions.

Our value proposition is that the flue gas from coal or gas-fired combustion plants can be routed into the fuel cells, where it is efficiently concentrated and captured. The CO₂ is then compressed and chilled outside the fuel cells and available for industrial use such as enhanced oil recovery or for sequestration. By *producing* power during the carbon capture process, as opposed to conventional capture technologies that *consume* power, the SureSource Capture is unique in that it provides a revenue stream from electricity generated. The fuel cells also destroy much of the smog producing NO_x in the coal/gas-fired flue gas, something conventional capture

technologies are not able to do. Scalable, efficient and affordable is what drove ExxonMobil's interest.

We also announced our first demonstration project at a 2.7 gigawatt mixed-use coal/gas fired power plant owned by Southern Company subsidiary Alabama Power. A leader in exploring carbon capture, Southern Company is well-suited to support our demonstration of fuel cell carbon capture, first on coal flue gas and then on gas-fired flue gas, using the same fuel cell power plant.

Carbon emissions are a global issue and our solution can address a large potential global market, including power generation as well as industrial applications. Illustrating cross-border interest and an example of an industrial application was our announcement in late 2016 of an engineering study for a consortium of leading oil and gas producers in the Canadian oil sands. This project could lead to a carbon capture fuel cell installation at a gas-fired heavy oil/bitumen processing plant at the oil sands.

Long-duration Energy Storage

Integrating intermittent resources into an ever more demanding and complex grid requires innovative approaches including efficient and affordable long-duration storage. We are continuing to advance our highly versatile solid oxide fuel cell (SOFC)

and solid oxide electrolysis cell (SOEC) for utility-scale energy storage applications. During periods of excess power supply, the SOEC acts in reverse and converts excess power into hydrogen, which is then compressed and stored on-site. As power is needed, the plant switches back to power generation mode and the SOFC uses the stored hydrogen to generate power. With very high round-trip efficiency, we believe the economics of our solution will be very attractive to utilities. Supporting these efforts is recognition from the U.S. Department of Energy with research contracts awarded in 2016.

Our Focus

We purposefully seek the world's industry leaders for strategic partnerships and customer relationships. While it can take longer to begin a relationship, it speaks volumes when we say customer names like Dominion, EON, NRG, ExxonMobil and Pfizer. We announced a new customer relationship with Pfizer in 2016 and began operating a two-power plant installation at their campus in only 10 months. The first megawatt-class fuel cell plant in Europe, owned by Germany-based utility EON, began operating in 2016. We also sold our second megawatt-class power plant to Pepperidge Farm Bakeries and this second plant began commercial operations in 2016 at one of their bakery operations.

We are continuing to enhance and expand our offerings as we strive to create even better value for our customers and pursue adjacent market opportunities and geographies. Expanding adoption is our key focus including existing and new customers in North American and Europe.

We offer flexible ownership structures and source project financing for our customers. We selectively retain some projects that are structured with a long term power purchase agreement (PPA), generating recurring and predictable energy sales. This PPA structure benefits the customer with

operating cost reductions, predictability of power pricing and avoidance of a capital investment.

Conclusion

Our innovative, clean and affordable fuel cell power plants meet and exceed clean energy objectives, drive economic development, create jobs and serve customers and ratepayers with a solution that is difficult for other forms of power generation to match.

We are advancing new solutions including the enhanced efficiency SureSource 4000 that enables clean distributed power generation where the power is used, at grid-competitive costs and with large-scale combined cycle efficiency levels.

We are advancing our novel fuel cell carbon capture solution with the global leader in sequestration, ExxonMobil, and launching a demonstration project at a utility-owned coal/gas-fired power plant.

The cornerstones of this company include the dedicated and talented associates who are making this happen and our investors for which we appreciate the continued patience and support. We are committed to continuing to strengthen and grow our business model to deliver value to all of our stakeholders over time.

Sincerely,



Arthur (Chip) Bottone

*President and Chief Executive Officer
FuelCell Energy, Inc.*



Arthur (Chip) Bottone



FINANCIAL INFORMATION

Selected Financial Data	7
Business Overview	8
Management's Discussion and Analysis of Financial Condition and Results of Operations	24
Management's Annual Report on Internal Control Over Financial Reporting	35
Report of Independent Registered Public Accounting Firm	36
Consolidated Balance Sheets	37
Consolidated Statements of Operations and Comprehensive (Loss)	38
Consolidated Statements of Changes In Equity (Deficit)	39
Consolidated Statements of Cash Flows	40
Notes To Consolidated Financial Statements	41
Forward-Looking Statement Disclaimer	59
Shareholder Information	60
Directors and Officers	Inside Back Cover

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, 2016 have been derived from our audited consolidated financial statements together with the notes thereto included elsewhere in this annual report. 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.

Consolidated Statement of Operations Data:

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

	2016	Years Ended October 31,			
		2015	2014	2013	2012
Revenues:					
Product sales	\$ 62,563	\$128,595	\$136,842	\$145,071	\$ 94,950
Service agreements and license revenues	32,758	21,012	25,956	28,141	18,183
Advanced technology contracts	12,931	13,470	17,495	14,446	7,470
Total revenues	108,252	163,077	180,293	187,658	120,603
Costs and expenses:					
Cost of product sales	63,474	118,530	126,866	136,989	93,876
Cost of service agreement and license revenues	33,256	18,301	23,037	29,683	19,045
Cost of advanced technology contracts	11,879	13,470	16,664	13,864	7,237
Total cost of revenues	108,609	150,301	166,567	180,536	120,158
Gross (loss) profit	(357)	12,776	13,726	7,122	445
Operating expenses:					
Administrative and selling expenses	25,150	24,226	22,797	21,218	18,220
Research and development costs	20,846	17,442	18,240	15,717	14,354
Total costs and expenses	45,996	41,668	41,037	36,935	32,574
Loss from operations	(46,353)	(28,892)	(27,311)	(29,813)	(32,129)
Interest expense	(4,958)	(2,960)	(3,561)	(3,973)	(2,304)
Income (loss) from equity investments	—	—	—	46	(645)
Impairment of equity investment	—	—	—	—	(3,602)
License fee and royalty income	—	—	—	—	1,599
Other income (expense), net	622	2,442	(7,523)	(1,208)	1,244
Provision for income tax	(519)	(274)	(488)	(371)	(69)
Net loss	(51,208)	(29,684)	(38,883)	(35,319)	(35,906)
Net loss attributable to noncontrolling interest	251	325	758	961	411
Net loss attributable to FuelCell Energy, Inc.	(50,957)	(29,359)	(38,125)	(34,358)	(35,495)
Preferred stock dividends	(3,200)	(3,200)	(3,200)	(3,200)	(3,201)
Net loss to common shareholders	\$ (54,157)	\$ (32,559)	\$ (41,325)	\$ (37,558)	\$ (38,696)
Net loss to common shareholders					
Basic	\$ (1.82)	\$ (1.33)	\$ (2.02)	\$ (2.42)	\$ (2.81)
Diluted	\$ (1.82)	\$ (1.33)	\$ (2.02)	\$ (2.42)	\$ (2.81)
Weighted-average shares outstanding					
Basic	29,774	24,514	20,474	15,544	13,789
Diluted	29,774	24,514	20,474	15,544	13,789

Consolidated Balance Sheet Data:

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

	2016	At October 31,			
		2015	2014	2013	2012
Cash and cash equivalents ⁽¹⁾	\$118,316	\$ 85,740	\$108,833	\$ 77,699	\$ 57,514
Working capital	150,206	129,010	141,970	83,066	55,729
Total current assets	202,469	203,898	217,031	189,329	140,626
Total assets	342,137	277,231	280,636	237,636	191,485
Total current liabilities	52,263	74,888	75,061	106,263	84,897
Total non-current liabilities	115,621	47,732	47,269	84,708	32,603
Redeemable preferred stock	59,857	59,857	59,857	59,857	59,857
Total equity (deficit)	114,396	94,754	98,449	(13,192)	14,128
Book value per share ⁽²⁾	\$ 3.25	\$ 3.65	\$ 4.11	\$ (0.81)	\$ 0.91

[1] Includes short-term and long-term restricted cash and cash equivalents.

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

BUSINESS OVERVIEW

Overview

We deliver proprietary fuel cell power solutions that enable economic value with the clean and affordable supply, recovery and storage of energy. We serve utilities, industry and municipal power users on three continents with megawatt-class scalable solutions that include utility-scale and on-site power generation, carbon capture, local hydrogen production for transportation and industry, and energy storage. With more than 5.6 million megawatt hours of ultra-clean power produced, FuelCell Energy is a global leader in designing, manufacturing, installing, operating and maintaining environmentally responsible fuel cell power solutions.

We provide comprehensive turn-key power generation solutions to our customers, including power plant installation, operations and maintenance under multi-year service agreements. We develop projects and also sell direct to customers, providing either a comprehensive turn-key solution of developing, installing and servicing the fuel cell power plant, or selling the power plant equipment only. For projects that we develop, the end user of the power typically enters into a Power Purchase Agreement (PPA), and we either identify a project investor to purchase the power plant and assume the PPA, or we retain the project and recognize electricity revenue ratably over the term of the PPA. We target large-scale power users with our megawatt-class installations. To provide a frame of reference, one megawatt is adequate to power approximately 1,000 average sized U.S. homes. Our customer base includes utility companies, municipalities, universities, government entities and a variety of industrial and commercial enterprises. Our leading geographic markets are the United States, Germany and through a technology license, South Korea. We are pursuing expanding opportunities in Asia, Europe, and Canada.

Our value proposition is to enable economic value with clean and affordable fuel cell power plants that supply power where consumed. Our products can also be configured for recovery and storage applications. Our solutions are easy-to-site in populated areas as they are very clean, operate quietly and without vibrations, and have only modest space requirements. Fuel cells use an electrochemical process to convert a fuel source into electricity and heat in a highly efficient process that emits virtually no pollutants as the fuel is not burned, generating power that is almost wholly absent of criteria pollutants such as nitrogen oxide (NOx) that causes smog, sulfur dioxide (SOx) that contributes to acid rain, and particulate matter that can aggravate asthma. Locating power generation near the point of use reduces reliance on the transmission grid, leading to enhanced energy security and power reliability. Utilities can minimize or even avoid the cost of transmission or other infrastructure by adopting distributed generation, which saves their ratepayers the cost of installing and maintaining transmission and also avoids the losses associated with transmitting electricity over great distances. 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 we believe will lead to wider adoption.

Utilizing our core Direct Fuel Cell (DFC) plants, we are commercializing a tri-generation distributed hydrogen configuration that generates electricity, heat and hydrogen for industrial and/or transportation uses, as well as a fuel cell carbon capture solution for coal or gas-fired power plants. We also are developing and commercializing Solid Oxide Fuel Cell (SOFC) plants for adjacent sub-megawatt applications to the markets for our megawatt-class DFC power plants as well as energy storage (Reversible Solid Oxide Fuel Cell (RSOFC)) applications utilizing hydrogen as an energy carrier. The market potential for these products is sizeable and these applications are complementary to our core products, as they leverage our existing customer base, project development, manufacturing, sales and service expertise.

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. Today we develop turn-key distributed power generation solutions, operate and provide comprehensive service for the life of the asset.

Markets

Vertical Markets

Access to clean, affordable, continuous and reliable power defines modern lifestyles. The ability to provide power cleanly and efficiently is taking on greater importance and urgency in many regions of the world. Central generation and its associated transmission and distribution grid are difficult to site, costly, and generally take many years to permit and 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 impact 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 that is affordable to consumers.

Our solutions are installed on both sides of the electric meter meaning that we serve on-site markets supplying power directly to the end user, as well as utility-scale projects that supply the power to the electric grid. We target seven distinct markets including:

- (1) Utilities and Independent Power Producers
- (2) Industrial and Process Applications
- (3) Education and Health Care
- (4) Data Centers and Communication
- (5) Wastewater Treatment
- (6) Government
- (7) Commercial and Hospitality

The Utilities and Independent Power Producers segment is our largest vertical market with customers that include utilities on the East and West coast of the United States such as Dominion (NYSE: D), one of the largest utilities in the United States; Avangrid Holdings (NYSE: AGR); and NRG Energy (NYSE: NRG), the largest Independent Power Producer ("IPP") in the United States. Our carbon capture demonstration installation will be located at a power plant owned by a subsidiary of Southern Company (NYSE: SO). In Europe, utility customers include E.ON Connecting Energies (DAX: EOAN), one of the largest utilities in the world, and Switzerland-based ewz. The greatest number of installed DFC plants is in South Korea primarily supplying that nation's electric grid, with the fuel cells' heat typically used in district heating systems to heat and cool nearby facilities. Our exclusive technology licensee 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.

Our DFC power plants are producing power for a variety of industrial, commercial, municipal and government customers including manufacturing, pharmaceutical processing, universities, healthcare facilities and wastewater treatment facilities. These institutions desire efficient, ultra-clean continuous power to reduce operating expenses, reduce greenhouse gas emissions and avoid pollutant emissions to meet their sustainability goals, while achieving secure and reliable on-site power. Combined heat and power fuel cell applications further support economic and sustainability initiatives by minimizing or avoiding use of combustion-based boilers for heat.

Our products are fuel flexible, utilizing clean natural gas and renewable biogas generated by the customer on-site or directed biogas, generated at a distant location and transported via the existing gas network. In addition, we have demonstrated other fuel sources including coal syngas and propane.

As renewable technologies such as wind and solar power are deployed more widely, the need for a clean, continuous power generation that complements and balances these intermittent sources becomes greater to maintain grid stability or consistent power supply for on-site applications. Our installed base includes a number of locations where our customers use DFC plants for meeting power needs that complements their intermittent wind and/or solar power generation.

Our fuel cell solutions are well suited for micro-grid applications, either as the sole source of power, or integrated with other forms of power generation. We can model, install and operate the micro-grid, which is a differentiator in the power industry. We have fuel cells operating and under construction as micro-grids at universities and municipalities. Under normal operation, the fuel cell will supply power to the grid. If the grid is disrupted, the fuel cell will automatically disconnect from the grid and power a number of critical buildings.

Wastewater treatment facilities, food and beverage processors, and agricultural operations produce 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 convert 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

is the largest biogas market for DFC power plants. 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.

We estimate that the addressable distributed generation market and geographies in which we compete for the supply of energy, including distributed hydrogen production, is approximately a \$22 billion opportunity, with approximately 40-45 percent consisting of power plant sales and the remainder representing associated service agreements. We estimate that the addressable market for the recovery of energy, including our fuel cell carbon capture solution and our gas pipeline application is approximately \$28 billion, assuming only a 1% penetration rate of addressable coal and gas-fired central generation power plant facilities within the geographies where we do business, and only 25% carbon capture at these coal or gas-fired plants. The addressable energy storage market is still developing as different technologies are beginning to come to market with different approaches to storage and different durations for how long the energy can be stored. We estimate that the addressable market for long duration storage may be in the range of tens of billions of dollars.

Geographic Markets

We target geographic markets with high urban density that value clean distributed generation. We are pursuing a density strategy, targeting markets with the potential for recurring order flow that justifies investment in local service infrastructure. Our target markets currently have regulatory and legislative policy support such as clean air requirements and economic incentives to support the adoption of clean and renewable distributed power generation. Renewable Portfolio Standards ("RPS") is a mechanism designed to promote the adoption of renewable power generation and is one market enabler of demand for our power generation solutions. Fuel cells can help states meet RPS clean power mandates by generating highly efficient, clean electricity continuously and near the point of use.

North America: We have active business development activities primarily in the Northeast and on the West Coast where high population density, higher energy costs, the need for distributed generation solutions with a small footprint, and public policy support our product offerings. We can rapidly respond to market demands and construct utility scale plants in less than a year. Most of our installed base in the United States is located in California and Connecticut, both of which have enacted RPS programs. As states look to meet their RPS requirements and utilities further 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 to a distributed generation model are supportive of demand and our initiatives to continue to improve affordability are expected to lead to increased adoption. We continue to explore opportunities in Canada as two separate carbon capture engineering studies were announced in 2016 exploring the potential application of fuel cell carbon capture systems for oil sand applications in Alberta, Canada.

Europe: The European power generation market values distributed generation, efficiency and low emissions and represents opportunity for stationary fuel cell power plants. As we promote awareness and grow the adoption of our solutions, we are focusing on three specific geographies, including Germany, as it transitions away from nuclear power generation and works to integrate a significant amount of intermittent power generation capacity; the United Kingdom, as it evaluates how to achieve aggressive carbon reduction goals; and Italy with growing adoption of distributed generation. We are active in other West European countries as well.

We serve the European market from offices in Dresden, Germany and a manufacturing facility in Taufkirchen, Germany.

South Korea and the Broader Asia Market: Fuel cells are well-suited for South Korea due to the need to import fuel for power generation, ease of siting in populated areas, and high urban density that makes siting transmission more difficult. Intermittent renewable technologies such as solar and wind are not as well suited due to the geography (high urban densities limit available land for power generation) and climate/topography. The South Korean government has made clean distributed generation power sources a priority to support its 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 that are helping South Korea achieve its RPS and electricity generation goals.

The RPS in South Korea requires an increase of new and renewable power generation to 10% by 2024 from 2% in 2012. The program mandates the addition of 0.5% of renewable power generation per year through 2016, which equates to approximately 350 megawatts, increasing to 1% 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.

Select Asian markets with high urban densities, lack of domestic fuel sources, movement away from nuclear power, and a need for cleaner power to reduce smog represent market opportunities. Highly efficient fuel cells maximize power output from high cost imported fuel, and do so without the need to add costly transmission. The Asian market is addressed by our South Korean technology licensee, POSCO Energy, as explained in the following section.

Strategic Alliances

We leverage our core capabilities by forging strategic alliances with carefully selected business partners that bring power generation experience, financial resources, and market access. Our strategic allies typically have extensive experience in developing and selling power generation products. We believe our strength in the development of fuel cell products; coupled with our allies' understanding of broad range of markets and customers, products and services, enhances the sales and development of our products, as well as providing endorsement of our power generation solutions. Our global business allies include:

NRG Energy: In 2013, we entered into a teaming and co-marketing agreement with NRG Energy ("NRG"), encompassing both direct sales to NRG customers in North America as well as sales to NRG, to own the fuel cell power plants and sell the power and heat to the end user under power purchase agreements. NRG owns approximately 1.4 million shares of our common stock or approximately 4% of our outstanding shares, extends a \$40.0 million revolving construction and term financing facility to FuelCell Energy Finance, LLC ("FuelCell Finance") our wholly-owned subsidiary, and is represented on the FuelCell Energy Board of Directors by the CEO of NRG Yield (NYSE: NYLD). NRG is the largest IPP in the U.S. with approximately 50,000 megawatts of generation capacity and almost three million retail and commercial customers. We are actively marketing with NRG to its existing customer base.

POSCO Energy: We are allied with POSCO Energy, an IPP with 2015 annual revenues of approximately \$1.7 billion and a subsidiary of South Korean-based POSCO, one of the world's largest steel manufacturers (NYSE: PKX), with 2015 annual revenues of approximately \$51 billion. POSCO Energy owns 2.6 million of our common shares or approximately 7% of our outstanding shares. POSCO Energy has extensive experience in power plant project development, owning and operating power plants in multiple countries and is the largest independent power producer in South Korea.

Our relationship with POSCO Energy has evolved to support Korean market demand for clean distributed generation. The relationship began in 2003 with the sale of a single sub-megawatt demonstration plant and now South Korea has the largest installed fleet, including a 59 megawatt facility, the world's largest fuel cell park consisting of 21 DFC3000 power plants. POSCO Energy manufactures in South Korea and sells to the Asian market under a licensing and royalty agreement for DFC power plants and collaborates with the Company on many market and product development initiatives.

Fraunhofer IKTS: The Fraunhofer Institute for Ceramic Technologies and Systems 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 €2 billion (approximately \$2.1 billion) and approximately 23,000 staff, primarily scientists and engineers. Fraunhofer maintains more than 60 research centers and representative offices in Europe, the United States, Asia and the Middle East.

Our relationship with Fraunhofer IKTS began in 2012 and involves cooperating on research and development of our core fuel cell technology under research contracts. Fraunhofer IKTS contributes its expertise and extensive research and development capabilities with fuel cells and materials science as well as shares its industry and government relationships to support further adoption of fuel cells.

E.ON Connecting Energies GmbH ("E.ON"): E.ON Connecting Energies is a business unit of E.ON that offers integrated energy solutions for commercial and industrial customers as well as public-sector institutions internationally. During fiscal year 2015, we executed a Project Development Agreement with E.ON Connecting Energies to offer decentralized CHP solutions

with megawatt and multi-megawatt fuel cell power plants to E.ON's existing and prospective European customer base, via power purchase agreement financing or leasing structures. The first sale announced under this agreement was a CHP-configured megawatt-class fuel cell plant installation at a German manufacturing company that was commissioned in September 2016. E.ON Connecting Energies owns the power plant and FuelCell Energy Solutions installs, operates and maintains the plant under a long-term service agreement. With more than 45,000 megawatts of power generation assets, a presence in more than a dozen countries, and more than 56,000 employees, the E.ON Group is one of the world's largest utilities.

Business Strategy

Our business model consists of growing and expanding diverse revenue streams, selectively utilizing strategic partnerships for market development, financing and cost reductions, protecting and leveraging intellectual property to generate value, and identifying and developing new markets for our core technology. Revenue streams include power plant and component sales; engineering, procurement and construction ("EPC") revenue; royalty and license revenue; service revenue including long-term service agreements and the sale of power under PPAs; and revenue from public and private industry research contracts under Advanced Technologies.

Our Company vision is to provide ultra-clean, highly efficient, reliable distributed power generation at a cost per kilowatt hour that is less than the cost of grid-delivered electricity in our target markets. We believe we have a clear path to attaining this vision through increased *market adoption* and continued reduction in the *Levelized Cost of Energy (LCOE)* for our fuel cell projects.

Market Adoption

We target vertical markets and geographic regions that value clean distributed generation, are located where there is a premium to the cost of grid-delivered electricity, and are aligned with regulatory frameworks that harmonize energy, economic and environmental policies. Our business model addresses all three of these policy areas with highly efficient and affordable distributed generation that offers local job creation potential and delivers de-centralized 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, the Northeast the United States and California. We have also installed and are operating plants in the United Kingdom, Germany, and Switzerland and are pursuing further opportunities in Western Europe and certain other states in the United States. We selectively partner with some of the leading power generation companies in our target markets to facilitate demand and deploy our projects.

While the Company has made significant progress with reducing costs and creating markets since the commercialization of our products in 2003, we face two primary challenges in growing the adoption of our distributed power generation solutions, which are (1) the need to further reduce the total cost of ownership, and (2) the continued education and acknowledgment of the value that our solutions provide. The business model for the generation and delivery of electricity for over a century has been central generation,

which is large scale power generation in distant locations away from urban areas with transmission and distribution to the end users. Distributed generation enhances existing utility models and it is being embraced in an increasing number of markets to improve grid operations. An example is a 40 MW fuel cell-only request for proposal (RFP) issued by PSEG Long Island in late 2016 that seeks competitive fuel cell projects to address power generation shortfalls in specifically targeted regions of Long Island. We work with utilities and IPPs to demonstrate how our solutions complement central generation by incrementally adding clean power generation when and where needed. One example of this is our two fuel cell plant sales to European utility E.ON as they seek to operate on both sides of the electric meter and avoid losing customers to growing adoption of distributed generation. We believe that we have a strong business model and strategy, demonstrated project development execution and plant operating performance and strategic relationships with committed businesses which will enable the Company to overcome these challenges and grow into a sustainable business.

Fuel Cell Power Plant Ownership Structures

Historically, customers generally purchased our fuel cell power plants outright. As the size of our fuel cell projects has grown and availability of project capital improved, project structures have transitioned to predominantly PPAs. Under a PPA, the end-user of the power commits to purchase power as it is produced for an extended period of time, typically 10 to 20 years. End-users may be a university, pharmaceutical company, hospital or a utility. A primary advantage for the end-user is that it does not need to commit its own capital to own a power generating asset yet it enjoys the multiple benefits of fuel cell power generation.

Once the PPA is executed, construction of the fuel cell project can begin. At or around the commercial operating date (COD), the project may be sold to a project investor or retained by the Company. If the project is sold, revenue from the product sale is recognized. If the project is retained, electricity sales are recognized monthly over the term of the PPA.

Our business model is continuing to evolve to meet the needs and opportunities of the market and to best situate ourselves for success. In 2016, we began to retain ownership of certain projects through sale-leasebacks and retaining the PPA and thus keep them on our balance sheet instead of selling them to an end-user customer, investor, or utility. Our decision to retain certain projects is based in part on the strong cash flows these projects can offer to us, the proliferation of power purchase agreements in the industry and the potential access to capital. Retaining PPAs affords the Company with the full benefit of future cash flows under the PPA's, which is higher than if the projects were sold. Our operating portfolio of retained projects is currently 11.2 MW with an additional 2.8 MW under construction. The Company plans to continue to grow this portfolio in a balanced manner while also selling projects to investors when that presents the best opportunity.

Levelized Cost of Energy

Our fuel cell projects are delivering power at a rate comparable to pricing from the grid in our targeted markets. Federal and state-level programs that help to support adoption of clean distributed power generation lead to below-grid

pricing. We measure power costs by calculating the Levelized Cost of Energy (LCOE) over the life of the project. In order to broaden the appeal of our products, we need to further reduce our LCOE to be below the grid without incentives.

The Company is integrated across substantially the entire value chain for our projects. We innovate, design and own our proprietary fuel cell technology. We develop and execute comprehensive fuel cell turn-key projects or sell direct. We manufacture and install the fuel cell power plants and we then operate and maintain the plants for our customers under long-term service agreements. Given this level of integration, there are multiple areas and opportunities for cost reductions. There are four primary elements to LCOE for our fuel cell projects, including 1) Capital Cost, 2) Operations and Maintenance, 3) Fuel, and 4) Cost of Capital. We are actively managing and reducing costs in all four areas as follows:

- **Capital Cost**—Capital costs of our projects include cost to manufacture, install, interconnect, and to provide any on-site application requirements such as configuring for a micro-grid and/or heating and cooling applications. We have reduced the product cost of our megawatt-class power plants by more than 60% from the first commercial installation in 2003 through our ongoing product cost reduction program, which involves every aspect of our business including engineering, procurement and manufacturing. Further cost reductions will be primarily obtained from reducing the per-unit cost of materials purchasing from higher volumes, supported by continued actions with engineering and manufacturing cost reductions. We manage an integrated global supply chain with our Asian technology licensee, POSCO Energy, so as Asian production leads to increased levels of purchasing from the integrated global supply chain, both FuelCell Energy and POSCO Energy will benefit with reductions in LCOE by obtaining lower pricing tiers from suppliers from the greater combined purchasing volume. On-site, our experienced EPC team has substantial experience in working with contractors and local utilities to safely and efficiently execute our projects and we expect continued cost reduction in this area with experience and continued transition to multi-MW fuel cell parks. In addition to these cost reduction efforts, our technology roadmap includes plans to increase the output of our power plants which will add further value for our customers and reduce LCOE.
- **Operations and Maintenance**—We provide services to remotely monitor, operate, and maintain customer power plants to meet specified performance levels. Operations and maintenance (O&M) is a key driver for power plants to deliver on projected electrical output and revenues for our customers. Many of our service agreements include guarantees for system performance levels including electrical output. While the electrical and mechanical balance of plant (BOP) in our DFC power plants is designed to last over 25 years, the fuel cell modules are currently scheduled for replacement every five years, the price of which is included in our service agreements. Customers benefit from predictable savings and financial returns over the life of the contract and minimal risk. Our goal is to optimize our customers' power plants to meet expected operating parameters throughout the plant's operational life. We expect to continually drive down the cost of O&M with an

expanding fleet which will leverage our investments in this area. Additionally, we are actively developing fuel cells that have a longer life, which will reduce O&M costs by increasing our scheduled module replacement period to seven years.

- **Fuel**—Our fuel cells directly convert chemical energy (fuel) into electricity, heat, water and in certain configurations, other value streams such as high purity hydrogen. 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 ("CO₂") and only trace levels of pollutants compared to combustion-type power generation. Our power plants operate on a variety of existing and readily available fuels including natural gas, renewable biogas, directed biogas and propane. Our core DFC power plants deliver electrical efficiencies of 47% and hybrid applications and advanced configurations are capable of delivering electrical efficiencies of 60% or greater. In a Combined Heat & Power (CHP) configuration, our plants can deliver up to 90% total system efficiency, depending on the application. Increasing electrical efficiency and reducing fuel costs is a key element of our operating cost reduction efforts.
- **Cost of Capital**—Most of our MW-scale projects are financed either by the energy user/off-taker that owns the asset or a project investor that owns the asset and sells energy to the off-taker. We are witnessing greater interest in the pay-as-you-go PPA approach by end users that prefer to avoid the up-front investment in power generation assets. Our ability to provide the end-user with financing options or to retain projects that we develop helps to accelerate order flow. Our projects create predictable recurring revenue that is not dependent on weather or time of the day, investment tax credits, accelerated tax depreciation or other incentives. Credit risk is mitigated by contracting with customers with strong credit. In addition, we offer meaningful system-level output performance guarantees over the life of our projects. As a result, cost of capital for our projects has declined over time, partially due to our operating experience. With continued execution, we expect our ability to attract bank credit and financial and project performance credibility to continue to improve, which we expect will lead to further decreases in financing costs.

Our core fuel cell platform is versatile and part of our strategy is finding new applications for our power generation solution. Advanced Technology Programs, discussed in a following section, identifies and obtains private and government funding sources to commercialize new applications of the power plants, such as distributed hydrogen and carbon capture. Energy storage applications are also being pursued utilizing both carbonate and solid oxide fuel cell technology.

Products

Our core fuel cell products offer ultra-clean, highly efficient power generation for customers including the 2.8 MW DFC3000®, the 1.4 MW DFC1500® and the recently introduced 3.7 MW DFC4000, plus derivations of this core DFC product for specific applications. The plants are scalable for multi-megawatt utility scale applications or on-site CHP generation for a broad range of applications. We can provide a comprehensive and complete turn-key fuel cell project that includes project development, EPC services, O&M and project finance.

Our proprietary DFC carbonate fuel cell technology generates electricity directly from a fuel, such as natural gas or renewable biogas, by reforming the fuel inside the fuel cell to produce hydrogen. This internal “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 and is readily available in our existing and target markets compared to some types of fuel cells that require high purity hydrogen. The DFC operates at approximately 1,100° 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 PEM and phosphoric acid. As a result, we are able to use less expensive and readily available industrial metals as catalysts for our fuel cell components. In addition, our DFC fuel cell produces high quality byproduct heat (approximately 700°F) that can be utilized for CHP applications using hot water, steam or chiller water for facility heating and cooling.

The DFC product line is a global platform based on carbonate fuel cell technology. Utilizing a standard design globally enables volume-based cost reduction and optimal resource utilization. Our power plants utilize 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. Thus, our 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 standard configuration produces high quality heat, suitable for making steam or hot water for facility use as well as absorption cooling. System efficiencies can reach up to 90%, depending on the application, when configured for CHP.

We market different configurations of the DFC plants to meet specific market needs, including:

Energy Supply

- **On-Site Power (Behind the Meter):** Customers benefit from improved power reliability and energy security from on-site power that reduces reliance on the electric grid. Utilization of the high quality heat produced by the fuel cell in a CHP configuration support 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 CHP power projects generally range in size from a single 1.4 MW DFC1500 to combining multiple 2.8 MW DFC3000 power plants for larger on-site projects. For example, an installation at a pharmaceutical company uses two power plants for 5.6 MW of power and heat production.
- **Utility Grid Support:** The DFC power plants are scalable, which enables siting multiple fuel cell power plants together in a fuel cell park. Fuel cell parks enable utilities to add clean and continuous power generation when and where needed and enhance the resiliency of the electric grid by reducing reliance on large central generation plants and the associated transmission grid. Consolidating certain steps for multiple plants, such as fuel processing, reduces the cost per megawatt hour for fuel cell parks compared to individual fuel cell power plants. Fuel cell park examples

include a five plant, 14.9 MW fuel cell park in Bridgeport, Connecticut that is supplying the electric grid, and multiple fuel cell parks in South Korea in excess of 10 megawatts each that supply power to the electric grid and high quality heat to district heating systems, such as a 59 MW installation which consists of 21 power plants, the world’s largest fuel cell park. By producing power near the point of use, 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 organization. Thus, our solutions can avoid or 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. Our products can be part of a total on-site power generation solution with our high efficiency products providing continuous power, and 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.

- **Higher Electrical Efficiency—Multi-megawatt applications:** The DFC4000™ (High Efficiency Fuel Cell) system is configured with a series of three fuel cell modules that operate in sequence, yielding a higher electrical efficiency than the standard DFC3000 configuration of two fuel cell modules operating in parallel. The heat energy and unused hydrogen from two fuel cell modules is supplied to the third module, along with some natural gas to generate additional electricity. This high efficiency configuration is designed to extract more electrical power from each unit of fuel with electrical efficiency of approximately 60% and is targeted at applications with large load requirements and limited waste heat utilization such as utility/grid support or data centers.
- **Distributed Hydrogen:** The DFC fuel cells internally reform the fuel source (i.e. natural gas or biogas) to obtain hydrogen. DFC plants can be configured for tri-generation, supplying power, heat and high purity hydrogen. Power output is modestly reduced to support hydrogen generation that can then be used for industrial applications such as metal or glass processing, material handling applications or petrochemicals, or transportation applications. Siting the tri-generation fuel cell plant at a source of biogas such as wastewater treatment facilities, results in renewable hydrogen for transportation, an attractive proposition to regulatory and legislative officials and car companies. After operating two sub-megawatt systems—one for renewable vehicle fueling and one producing industrial hydrogen for our Torrington manufacturing facility—we are now evaluating a variety of possible sites for the first commercial MW-scale application of the technology.
- **Micro-grid:** The DFC plants can also be configured as a micro-grid, either independently or with other forms of power generation. We possess the capabilities to model, design and operate the micro grid and have multiple examples of our DFC plants operating within micro-grids, some individually and some with other forms of power generation.

Energy Recovery

- **Gas Pipeline Applications:** DFC-ERG® (Direct FuelCell Energy Recovery Generation™) power plants are used in natural gas pipeline applications, harnessing energy that is otherwise lost during the station's natural gas pressure-reduction ("letdown") process. Also, thermal energy produced as a byproduct of the fuel cell's operation supports the letdown process, improving the station's carbon footprint and enhancing the project's economics. Depending on the specific gas flows and application, the DFC-ERG configuration is capable of achieving electrical efficiencies up to 70%. A 3.4 megawatt DFC-ERG system was sold to Avangrid (formerly UIL Holdings) and began operating in Connecticut during 2016.
- **Carbon Capture:** The DFC carbon capture system separates CO₂ from the flue gases of natural gas or coal-fired power plants or industrial facilities while producing ultra-clean power. Exhaust flue gas from the coal/gas plant is supplied to the cathode side of the fuel cell, instead of ambient air. The CO₂ in the exhaust is transferred to the anode side of the fuel cell, where it is much more concentrated and easy to separate. The CO₂ from the anode exhaust stream is liquefied using common chilling equipment. The purified CO₂ is then available for enhanced oil recovery, industrial applications or sequestration. Carbon concentration and capture within the carbonate fuel cell is a side reaction of the natural gas-fueled power generation process. Carbon capture systems can be implemented in increments, starting with as little as 5% capture with no appreciable change in the cost of power and with minimum capital outlay. Our solution generates a return on capital resulting from the fuel cell's production of electricity rather than an increase in operating expense required by other carbon capture technologies, and can extend the life of existing coal-fired power plants, enabling low carbon utilization of domestic coal and gas resources. During 2016, we announced the site selection for the first installation of a carbon capture configured DFC3000 power plant, which will be located at a mixed coal/gas fired power plant owned by a subsidiary of Southern Co. (NYSE: SO). The project is partially funded by the U.S. Department of Energy and ExxonMobil is also participating in the project.

Energy Storage

- **Hydrogen Production:** Our DFC plants can be configured to produce both power and hydrogen from renewable fuels or natural gas. The hydrogen and power production can be traded off, producing less power and more hydrogen during periods of lower power demand. Hydrogen is an energy carrier that can be compressed and stored for long durations and either used on-site or transported for use elsewhere.
- **Electrolysis:** Our solid oxide fuel cell technology has electrolysis capabilities, which is the ability to operate "in reverse" compared to fuel cell mode. Instead of producing power from fuel and air, a solid oxide stack in electrolysis mode splits water into hydrogen and oxygen using supplied electricity. Many utilities are considering electrolysis as an approach to store or utilize excess power from intermittent renewable sources when grid demand is low, producing hydrogen that can be used for thermal purposes, vehicle fueling, or to then make power during peak demand periods.

- **Reversible Solid Oxide Energy Storage:** Our solid oxide stacks are capable of alternating between electrolysis and power generation mode. This allows us to configure efficient and cost-effective energy storage solutions where hydrogen is produced from electricity in electrolysis mode and stored until power is needed, at which point the stored hydrogen is used in the same stacks to produce electricity. Long durations of storage capacity can be achieved just by providing sufficient hydrogen storage capability, making this solution uniquely qualified for storage applications requiring many hours or days of storage capacity. The need for long duration energy storage behind the meter and on the utility grid will increase as the penetration of intermittent renewable sources on the grid increases. This solution can be sited adjacent to an electric substation, avoiding the need for transmission.

In summary, our solutions offer many advantages:

- **Distributed generation:** Generating power near the point of use improves power reliability and energy security and lessens the need for costly and difficult-to-site generation and transmission infrastructure, enhancing the resiliency of the grid.
- **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. 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 power generation option in their size class, providing the most power from a given unit of fuel, reducing fuel costs. This high electrical 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 CHP configurations, system efficiencies can reach up to 90%, 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 weather or time of day.
- **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 with scarce and expensive land. 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 high density areas with constrained land resources, and adjacent to the demand source thereby avoiding costly transmission construction.

- **Dispatchability:** We are offering a dispatchability option for utility-scale applications where some degree of power production cycling is valued on a pre-determined schedule to accommodate periods of lower power demand. Our power plants can also provide reactive power avoiding the need for separate static or dynamic VAR (volt-ampere reactive) compensation systems.

DFC 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 CO₂ and only trace levels of pollutants compared to combustion-type power generation. The following table illustrates the favorable emission profile of our DFC and high efficiency power plants:

	Emissions (Lbs. Per MWh)				
	NO _x	SO ₂	PM	CO ₂	CO ₂ with CHP
Average U.S. Fossil Fuel Plant	5.06	11.6	0.27	2,031	n/a
Microturbine (60 kW)	0.44	0.008	0.09	1,596	520 - 680
Small Natural Gas Turbine	1.15	0.008	0.08	1,494	520 - 680
DFC®—natural gas	0.01	0.0001	0.00002	940	520 - 680
DFC 4000 High Efficiency Plant	0.01	0.0001	0.00002	740	520 - 680
DFC—utility scale carbon capture	0.01	0.0001	0.00002	80	n/a
DFC—renewable biogas	0.01	0.0001	0.00002	<0	<0

For power plants operating on natural gas, higher fuel efficiency results in lower CO₂, and also results in less fuel needed per kWh of electricity generated and Btu of heat produced. The high efficiency of our products results in significantly less CO₂ 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, government agencies and regulatory bodies generally classify our power plants as carbon neutral due to the renewable nature of the fuel source.

High electrical efficiency reduces customers' exposure to volatile fuel costs, minimizes operating costs, and provides maximum electrical output from a finite fuel source. Our power plants achieve electrical efficiencies of 47% to 60% or higher depending on configuration, location, and application, and up to 90% total efficiency in a CHP configuration, depending on the application. The electric grid in the United States is only approximately 36% electrically efficient and typically does not support CHP configurations.

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 MW size 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 balance of plant (BOP). The mechanical BOP 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 an inverter. 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 then assembled with the fuel cell module into a complete power plant.

Cell Manufacturing and Capacity

Our strategy is to produce power for prices that are below typical grid prices. Higher purchasing volume reduces the per unit cost of raw materials and componentry. As explained below, the North American production facility has an annual capacity of 100 MW with an expansion underway, and the Asian manufacturing facility, owned and operated by our technology licensee, POSCO Energy, has 100 MW of annual capacity in a building that is sized for 200 MW annually. Our global cell manufacturing capabilities are described below:

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 conditioned at our facility in Danbury, Connecticut for the final step in the manufacturing process and shipped to customer sites. 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.

We are undertaking a multi-year project to reduce costs and position ourselves for future growth in two phases. The first phase is underway to add a 102,000 square foot addition to our North American manufacturing facility in Torrington, Connecticut. The building expansion will allow for consolidation of warehousing and service facilities enabling manufacturing efficiencies by providing the needed space to re-configure production. As demand supports, the second phase will be undertaken to add manufacturing equipment to increase annual capacity to at least 200 megawatts. The State of Connecticut is extending two low interest long-term loans to us for each of the two phases and up to \$10.0 million of tax credits. Each loan is \$10.0 million, with an interest rate of 2.0% and a term of 15 years. Up to 50% of the principal is forgivable if certain job creation and retention targets are met. We have received the proceeds of the first \$10 million loan to support the first phase of the expansion.

The Torrington production facility, the Danbury corporate headquarters and research and development, and Field Service are ISO 9001:2008 certified, reinforcing the tenets of the FuelCell Energy Quality Management System and our core values of continual improvement and commitment to quality.

South Korea: To meet Asian demand, POSCO Energy built a cell manufacturing facility in Pohang, Korea and the facility became operational in late 2015. Annual production capability is 100 MW and the building is sized to accommodate up to 200 MW of annual production to support future growth in the Asian market.

Europe: We have a 20,000 square-foot manufacturing facility in Taufkirchen, Germany that has the capability to perform final module assembly for up to 20 MW per year of sub-megawatt fuel cell power plants for the European market.

Raw Materials and Supplier Relationships

We use various commercially available raw materials and components to construct a fuel cell module, including nickel and stainless steel, which are key inputs to our manufacturing process. Our fuel cell stack raw materials are sourced from multiple vendors and are not considered precious metals. We have a global integrated supply chain that serves North American, European, and the POSCO-owned Asian production facilities. 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 and qualify new suppliers as we diversify our supplier base in our pursuit of lower costs and consistent quality. We purchase mechanical and electrical balance of plant componentry from third-party vendors, based on our own proprietary designs.

Product Cost Reduction

Our overall cost reduction strategy is based on the assumption that continued increases in production will result in further economies of scale, reducing the per-unit cost of the raw materials and componentry we purchase. In addition, our cost reduction strategy relies on implementation of further

advancements in our manufacturing process, global competitive sourcing integrated with POSCO sourcing volumes, engineering design and technology improvements (including modules with longer life and increased module power output). We have a broad range of initiatives to reduce costs and improve our overall project affordability.

Improvements in affordability, driven by product cost reductions, are critical for us to accelerate market adoption of our fuel cell products and attain Company 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.

We have reduced the product cost of our megawatt-class power plants by more than 60% from the first commercial installation in 2003 through engineering redesign, sourcing, and improved power output and module life. Higher purchasing volume reduces costs and strengthens the supply chain by enabling direct purchasing rather than through distributors and the ability to access stronger national and international suppliers rather than small local or regional fabricators. We manage a global integrated supply chain to ensure consistent pricing and leverage volume purchases whether by POSCO Energy or the Company, to ensure both parties benefit by obtaining lower pricing tiers from suppliers from the greater combined purchasing volume.

Engineering, Procurement and Construction

We provide customers with complete turn-key solutions including the development, engineering, procurement, construction, interconnection and operations for our fuel cell projects. From an EPC standpoint, FCE has an extensive history of safe and timely delivery of turnkey projects. We have developed relationships with many design firms and licensed general contractors and have a repeatable, safe, and efficient execution philosophy that has been successfully demonstrated multiple times in many different U.S. states and some European countries with an exemplary safety record. The ability to rapidly and safely execute installations minimizes high cost construction period financing and can assist customers in certain situations when the commercial operating date is time sensitive.

Services and Warranty Agreements

We offer a comprehensive portfolio of services including engineering, project management and installation, and long-term operating and maintenance programs 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. Virtually all of our customers purchase service agreements ranging up to 20 years. Pricing for service contracts is based upon the markets in which we compete and includes all future maintenance and fuel cell module exchanges. While the electrical and mechanical BOP in our DFC power plants is designed to last about 25 years, the current fuel cell modules must be replaced approximately every five years.

Under the typical provisions of the service agreements, we provide services to monitor, operate and maintain customer power plants to meet specified performance levels. Operations and maintenance is a key driver for power plants to deliver their projected revenue and cash flows. Many of our service agreements include guarantees for system performance, including electrical output and heat rate. Should the power plant not meet the minimum performance levels, we may be required to replace the fuel cell module with a new or used replacement and/or pay performance penalties. The service aspects of our business model provide a recurring and predictable revenue stream for the Company. We have committed future production for scheduled fuel cell module exchanges under service agreements through the year 2037. 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. Our goal is to optimize our customers' power plants to meet expected operating parameters throughout their contracted project term.

In addition to our service agreements, we provide a warranty for our products for a specific period of time against manufacturing or performance defects. The warranty term in the U.S. is typically 15 months after shipment or 12 months after acceptance of our products, except for fuel cell kits. We 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 accrue for estimated future warranty costs based on historical experience.

License Agreements and Royalty Income

We receive license fees and royalty income from POSCO Energy related to manufacturing and technology transfer agreements entered into in 2007, 2009 and 2012. The Cell Technology Transfer Agreement ("CTTA"), executed in October 2012, provides POSCO Energy with the technology to manufacture DFC power plants in South Korea and the market access to sell power plants throughout Asia. In October 2012, the Company and POSCO Energy extended the terms of the 2007 and 2009 license agreements to be consistent with the term of the CTTA which expires on October 31, 2027. The term of these agreements may be extended beyond 2027 through future extensions, each for a period of five (5) years, by mutual agreement of the Company and POSCO Energy. In conjunction with the CTTA, the Company receives a 3.0% royalty on POSCO Energy net product sales as well as a royalty on each scheduled fuel cell module replacement under service agreements for modules that were built by POSCO Energy and installed at any plant in Asia under terms of the Master Service Agreement between the Company and POSCO Energy.

As we expand into other vertical or geographic markets, we may pursue additional licensing and royalty opportunities.

Advanced Technology Programs (Third-Party Funded Research and Development)

We undertake 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 our expertise and 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, hydrogen suitable for vehicle fueling or industrial purposes as well as use of DFC power plants to concentrate CO₂ from coal and natural gas fired power plants. Our Advanced Technology Programs are focused on three strategic areas for commercialization within a reasonable timeframe: (1) distributed hydrogen production, compression, and recovery, (2) carbon capture for emissions reduction and power generation and (3) SOFC, Solid Oxide Electrolysis Cells (SOEC), and RSOFC for stationary power generation and energy storage. 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 8%, 6% and 6% of our revenue for each of the fiscal years ended 2016, 2015, and 2014, respectively.

Significant commercialization programs on which we are currently working include:

Carbon Capture—Coal and natural gas are abundant, low cost resources that are widely used to generate electricity in developed and developing countries, but burning these fuels results in the emission of criteria pollutants and CO₂. Cost effective and efficient carbon capture from coal-fired and gas-fired power plants potentially represents a large global market because it could enable clean use of these fuels. Our carbonate fuel cell technology separates and concentrates CO₂ 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 CO₂ from coal or natural gas power plant exhaust streams. Capturing CO₂ as a side reaction while generating additional valuable power is an approach that could be more cost effective than other systems which are being considered for carbon capture.

We announced an agreement with ExxonMobil (NYSE: XOM) in 2016 to pursue fuel cell carbon capture for central generation gas-fired power plants. We are working on the installation of a megawatt-class fuel cell power plant at a mixed coal/gas-fired power plant in Alabama that is owned by Alabama Power, a subsidiary of Southern Company, a large southeastern U.S. utility. This project is being supported by an award from the U.S. Department of Energy to design and build the first MW-scale carbon capture system for coal fired power, and by ExxonMobil through a joint development agreement for evaluating carbon capture from gas-fired power generation. Successful demonstration may then lead to additional fuel cell power plant installations at this site and/or other central generation coal or gas-fired sites globally. In addition, in 2016

we announced two engineering studies: one with Alberta Innovates, a consortium of Canadian oil sands producers, and one with Cenovus Energy, as lead partner of a Joint Industry Project, to evaluate the feasibility of fuel cell carbon capture for gas-fired boilers used in oil sands processing. These various oil & gas and power producers are interested in the fuel cell carbon capture value proposition, and these studies are evaluating the application of our carbon capture system at specific sites, which could be future MW-scale carbon capture project opportunities.

Distributed Hydrogen Production, Compression, and Recovery—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. Gas separation technology can 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 and transportation applications, further summarized as follows:

Industrial Applications: We operate a tri-generation DFC300-H2 power plant at our Torrington manufacturing facility, utilizing natural gas to supply (1) electricity for the facility, (2) heat for the building, and (3) hydrogen for the manufacturing process, replacing hydrogen that was delivered by diesel truck. The installation is a showcase for industrial users of hydrogen to visit. The project is supported by the DOE and the State of Connecticut.

Vehicle Fueling Applications: A tri-generation DFC300-H2 power plant completed a three year demonstration at the Orange County Wastewater Treatment Facility in Irvine, California, utilizing renewable biogas to supply hydrogen for use in fuel cell vehicle fueling and clean renewable electricity. The demonstration was performed under sub-contract to Air Products (NYSE: APD) with funding provided by the DOE, California Air Resources Board, South Coast Air Quality Management District, the Orange County Sanitation District, and Southern California Gas Company.

SOFC/SOEC/RSOFC Development and Commercialization:

We are working towards commercialization of solid oxide fuel cell technology to target sub-megawatt commercial applications including smaller wastewater treatment facilities that do not have enough gas production to support a multi-megawatt solution as well as storage applications utilizing hydrogen as an energy carrier and storage medium. The potential market opportunity for sub-megawatt applications is for customers that need on-site power generation in either combined heat and power or electric-only configurations. SOFC technology is complementary to our carbonate technology-based MW scale DFC product line and affords us the opportunity to leverage our field operating history, existing expertise in power plant design, fuel processing and high volume manufacturing capabilities, and our existing installation and service infrastructure.

We perform SOFC/SOEC/RSOFC research and development at our Danbury facility as well as at our dedicated SOFC facility in Calgary, Canada. We are working under a variety of awards from DOE for development and commercialization of both SOFC and SOEC.

We see significant market opportunities for distributed hydrogen production, carbon capture, solid oxide fuel cell solutions and energy storage. The demonstration projects described above are steps on the commercialization road map as we prudently leverage third-party resources and funding to accelerate the commercialization and realize the market potential for each of these solutions.

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 net 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.

In addition to output and life enhancements, we designed and are now introducing the 3.7 megawatt DFC4000 configuration with increased electrical efficiency, and we invest in cost reduction and improving the performance, quality and serviceability of our plants. These efforts continually improve our value proposition and affordability.

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,		
	2016	2015	2014
Cost of advanced technologies			
contract revenues	\$11,879	\$13,470	\$16,664
Research and development			
expenses	20,846	17,442	18,240
Total research and development	\$32,725	\$30,912	\$34,904

Backlog

The Company has a contract backlog totaling approximately \$432.3 million at October 31, 2016 compared to \$381.4 million at October 31, 2015. At October 31, 2016 and 2015, the backlog includes approximately \$347.3 million and \$254.1 million, respectively, of service and power purchase agreements. Service backlog at October 31, 2016 has an average term of

approximately 15 years weighted based on dollar backlog and utility service contracts up to 20 years in duration. At October 31, 2016, product sales backlog totaled approximately \$24.9 million compared to \$90.7 million at October 31, 2015. At October 31, 2016, Advanced technologies contracts backlog totaled \$60.1 million, of which \$39.6 million is funded compared to \$36.5 million at October 31, 2015, of which \$33.4 million was funded.

Our backlog amount outstanding is not indicative of amounts to be earned in the upcoming fiscal year. The specific elements of backlog may vary in terms of timing and revenue recognition from less than one year to up to 20 years. In addition, the Company may retain operating power plants on the balance sheet rather than selling them, thus creating variability in timing of revenue recognition. Accordingly, the timing and the nature of our business makes it difficult to predict what portion of our backlog will be filled in the next fiscal year although we are currently estimating revenues of at least \$75 million both from backlog and new contracts for our fiscal year 2017. In all events, we expect the majority of our backlog will remain unfilled in fiscal year 2017 given the nature of our business.

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.

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 enables the use of commodity metals rather than precious metals, and high-quality heat suitable for CHP applications. We are also actively developing SOFC technology, as discussed in the prior Advanced Technology section. Other fuel cell types that may be used for commercial applications include phosphoric acid and PEM.

The following table illustrates industry estimates of the electrical efficiency, expected capacity range and byproduct heat use of the four principal types of fuel cells as well as highlights of typical market applications:

	MW-Class	Sub-MW-Class		Micro CHP	Mobile
Technology	Carbonate (CFC)	Phosphoric Acid (PAFC)	Solid Oxide (SOFC)	PEM/SOFC	Polymer Electrolyte Membrane (PEM)
Plant Size	1.4 MW - 3.7 MW	400 kW	up to 200 kW	< 10 kW	5 - 100 kW
Typical Application	Utilities, universities, industrial, municipal	Commercial buildings, grocery stores	Commercial buildings	Residential and small commercial	Transportation
Fuel	Natural gas, On-site biogas, Directed biogas, others	Natural gas, Directed biogas	Natural gas, Directed biogas	Natural gas	Hydrogen
Advantages	Efficiency, lowest cost, fuel flexible & CHP	CHP	Efficiency	Load following & CHP	Load following
Electrical Efficiency	43% - 47% std. configuration; ~60% for specialized configurations	40% - 42%	50% - 60%	25% - 35%	25% - 35%
Combined Heat & Power (CHP)	Steam, hot water, chilling & hybrid electrical applications	Hot water	Depends on technology used	Suitable for facility heating	n/a

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 CFCs. Emerging fuel cell technologies (and the companies developing them) include stationary PEM fuel cells for pure hydrogen applications (Ballard Power Systems), small or portable PEM fuel cells (Ballard Power Systems, Plug Power, Intelligent Energy Holdings, and increasing activity by numerous automotive

companies including Toyota, Hyundai, Honda and GM), stationary phosphoric acid fuel cells (Doosan), stationary solid oxide fuel cells (LG/Rolls Royce partnership, General Electric, Bloom Energy and Ceres Power Holdings), and small residential solid oxide fuel cells (Parker Hannifin, Toyota/Kyocera and Ceramic Fuel Cells Ltd.). 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 the United Kingdom, AFC Energy is engaged in alkaline fuel cell development for commercial 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, Caterpillar Solar Turbines and Kawasaki.

We also compete against the electric grid, which is readily available to prospective customers. The electric grid is supplied by traditional centralized 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 can complement solar and wind intermittency with the continuous power output of the fuel cells. Solar and wind require specific geographies and weather profiles and require transmission for utility-scale applications as well as a significant amount of land compared to our fuel cell power plants, making them difficult to site in urban areas, unlike our solutions.

We believe that only carbonate fuel cells are suitable for fuel cell carbon capture applications, so our fuel cell carbon capture solution does not compete against fuel cells from manufacturers utilizing other fuel cell technologies.

Our distributed hydrogen solution competes against traditional centralized hydrogen generation as well as electrolyzers used for distributed applications. Hydrogen is typically generated at a central location in large quantities by combustion-based steam reforming and then distributed to end users by diesel truck. Besides utilizing tri-generation DFC plants for distributed hydrogen, electrolyzers can be used that are in essence, reverse fuel cells. Electrolyzers take electricity and convert it to hydrogen. The hydrogen can be used as it is generated, compressed and stored, or injected into the natural gas pipeline. Companies using fuel cell-based electrolyzer technology for transportation applications include Proton Onsite, H2 Logic and Hydrogenics Corporation.

Hydrogen is an energy carrier and energy storage utilizing hydrogen is a growing market opportunity that we are pursuing with our SOFC/SOEC technology. Companies using PEM-based fuel cell electrolyzer technology for storage include Hydrogenics Corporation, ITM Power PLC, and McPhy Energy.

Regulatory and Legislative Support

Regulatory and legislative support encompasses policy, incentive programs, and defined sustainability initiatives such as Renewable Portfolio Standards (RPS).

Distributed generation solves different problems than central generation and regulatory policy can impact deployment of distributed generation. States and municipalities in the U.S. have adopted programs for which our products qualify. For example, there are strong programs in California supporting self-generation, clean air power generation and carbon reduction. Additional states have programs supporting on-site power production, combined heat and power applications, carbon reduction, grid resiliency/micro-grids and utility ownership of fuel cell projects.

Sometimes policy may be dated and inadvertently slows adoption of distributed generation. When this occurs, industry may work with regulatory and legislative bodies to revise and update policy. An example of this from 2016 was the State of California approval of a five megawatt departing load charge exemption cap for fuel cells, which improves project economics due to the operating characteristics of the continual power generation profile of fuel cells. This represented an increase from what was previously a one megawatt cap for utility departing load charges.

The U.S. Federal Government extends an investment tax credit (ITC) that allows a taxpayer to claim a credit of 30% of qualified expenditures (up to a tax credit limit of \$3,000/kW) for eligible power generation technologies. In December 2015, the United States Congress extended the ITC for 5 years, beginning January 1, 2017. The intention, as publicly stated by Congressional leaders, was to extend the ITC to all eligible technologies; however, the actual approved language only extended the ITC for solar energy technologies. As of January 1, 2017, fuel cells and a number of other power generation technologies are no longer eligible for the ITC.

Based on numerous public comments by leaders and members of Congress in the media and in the Congressional Record that the omission was an oversight that should be corrected, the fuel cell industry is continuing outreach to ensure parity of domestically designed and manufactured fuel cells with solar technologies. American designed and manufactured fuel cells provide value to the U.S. economy and stakeholders in numerous ways that justify their inclusion in the ITC, including:

- Fuel cells utilize domestic sources of natural gas to create electricity cleaner and more efficiently than traditional resources and improve power reliability by siting continual power where it is used
- The ITC is currently only supporting solar panels that are generally designed and manufactured overseas while U.S. designed and manufactured fuel cells with their strong domestic supply chain and export opportunities are excluded.

- Fuel cell carbon capture can help stabilize the U.S. coal industry and drive demand for U.S. natural gas by affordably reducing CO₂ emissions from coal and gas-fired power plants and industrial facilities. Additionally, there is a global export market potential for this American manufactured innovation.

While the ITC is a driver of fuel cell projects in the U.S., the ITC is not relevant for our European presence or for sales in Asia. We anticipate retaining ownership over more fuel cell projects, which we believe will make us less dependent on support from the ITC. Further, we believe that our products will achieve efficiencies that will permit them to compete without ITC support. For example, we are launching the DFC4000, which enhances fuel cell project economies for utility and data center applications by increasing the electrical efficiency. This product was designed to address decreasing incentives over time at both the federal and state level.

The majority of states in the U.S. have enacted legislation adopting Clean Energy Standards ("CES") or Renewable Portfolio Standards ("RPS") mechanisms. Under these standards, regulated utilities and other load serving entities are required to procure a specified percentage of their total electricity sales to end-user customers from eligible resources, by a specified date. CES and RPS legislation and implementing regulations vary significantly from state to state, particularly with respect to the percentage of renewable energy required to achieve the state's mandate, the definition of eligible clean and renewable energy resources, and the extent to which renewable energy credits (certificates representing the generation of renewable energy) qualify for CES or RPS compliance. Fuel cells using biogas qualify as renewable power generation technology in all of the CES and RPS states in the U.S., and eight states (including Connecticut, Delaware, Indiana, New York, Ohio, Oklahoma, Pennsylvania and Maine) specify that fuel cells operating on natural gas are also eligible for these initiatives in recognition of the high efficiency and near-zero pollutants of fuel cells.

Internationally, South Korea has an RPS to promote clean energy, reduce carbon emissions, and develop local manufacturing of clean energy generation products to accelerate economic growth. The RPS is designed to increase new and renewable power generation to ten percent of total power generation by 2023 from two percent in 2012 by requiring an additional one half of one percent of new and renewable power added annually from 2012 to 2017, increasing to one percent per annum through 2023. This equates to an estimated 370 MW market annually from 2016 to 2023. Electric utilities and independent power producers that have in excess of 500 MW of power generation capacity are required to comply with the RPS.

In Europe, there are a number of renewable energy programs and several environmental initiatives that contribute to growth in our markets. In addition, there are a variety of research and development funding programs for fuel cells and hydrogen at the European Union level as well as state level within specific countries. Hydrogen Europe, an industrial

association with more than 100 members, is supporting the expansion of the hydrogen and fuel cell industry by focusing on market deployment and financing models. In Italy, there are financial incentives for CHP configurations with high efficiency, including our products whether operating on natural gas or renewable biogas. Germany uses the National Innovation Program for Fuel Cells and Hydrogen led by National Organization for Hydrogen and Fuel Cell Technology as the tool to differentiate and support fuel cells versus combustion-based technology. There is also a technology deployment program in Germany for stationary fuel cells operating on either natural gas or renewable biogas.

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 SO_x and NO_x 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 CO₂ in per kW hour amounts that are much less than conventional fossil fuel central generation power plants due to the high efficiency of fuel cells. Due to the high temperature of the flue gas emissions, we are required to site or configure our power plants in a manner that allows the flue 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.

We are also subject to federal, state, provincial and/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 international markets.

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

Proprietary Rights and Licensed Technology

Our intellectual property consists of patents, trade secrets and institutional knowledge that we feel is a competitive advantage and represents a significant barrier to entry for potential competitors. Our Company was founded in 1969 as an applied research company and began focusing on carbonate fuel cells in the 1980s with our first fully commercialized DFC power plant sold in 2003. Over this period of time, we have gained extensive experience in designing, manufacturing, operating and maintaining fuel cell power plants. This experience cannot be easily or quickly replicated and combined with our trade secrets, proprietary processes and patents, safeguards our intellectual property rights.

At October 31, 2016, the Company, excluding its subsidiaries, has 90 patents in the U.S. and 88 patents in other jurisdictions covering our fuel cell technology (in certain cases covering the same technology in multiple jurisdictions), with patents directed to various aspects of our Direct FuelCell technology, SOFC technology, PEM fuel cell technology, and applications thereof. We also have 40 patent applications pending in the U.S. and 62 pending in other jurisdictions. Our U.S. patents will expire between 2016 and 2034, and the current average remaining life of our U.S. patents is approximately 9.9 years.

Our subsidiary, Versa Power Systems, Inc., has 33 current U.S. patents and 70 international patents covering the SOFC technology (in certain cases covering the same technology in multiple jurisdictions), with an average remaining U.S. patent life of approximately 7.3 years. Versa Power Systems, Inc. also has 3 pending U.S. patent applications and 16 patent applications pending in other jurisdictions. In addition, our subsidiary FuelCell Energy Solutions, GmbH has license rights to use FuelCell Energy's carbonate fuel cell technology as well as 2 U.S. and 27 patents outside the U.S. for carbonate fuel cell technology licensed from Fraunhofer IKTS.

No patents have expired that would have any material impact on our current or anticipated operations. As has historically been the case, we are continually innovating, and have a significant number of invention disclosures that we are reviewing that may result in additional patent applications.

Many of our U.S. patents are the result of government-funded research and development programs, including our Department of Energy (DOE) programs. U.S. patents we own that resulted from government-funded research are subject to the government exercising "march-in" rights. We believe that the likelihood of the U.S. government exercising these rights is remote and would only occur if we ceased our commercialization efforts and there was a compelling national need to use the patents.

Significant Customers and Information about Geographic Areas

We contract with a concentrated number of customers for the sale of our products and for research and development contracts. For the years ended October 31, 2016, 2015 and 2014, our top customers, POSCO Energy (which is a related party and owns approximately 7% of the outstanding common shares of the Company), the Department of Energy, the United

Illuminating Company, Dominion Bridgeport Fuel Cell, LLC, and BioFuels Energy, LLC accounted for an aggregate of 78%, 89% and 85%, 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,		
	2016	2015	2014
POSCO Energy	48%	67%	69%
The United Illuminating Company	10%	14%	9%
Department of Energy	8%	5%	4%
Dominion Bridgeport Fuel Cell, LLC	6%	3%	3%
BioFuels Energy, LLC	6%	—%	—%
Total	78%	89%	85%

We have marketing and manufacturing operations both within and outside the United States. We source raw materials and balance of plant components from a diverse global supply chain. In 2016, the foreign country with the greatest concentration risk was South Korea, accounting for 48% of our consolidated net sales. A multi-year fuel cell component order from our South Korean partner, POSCO Energy, concluded at the end of 2016. The Company receives royalties from POSCO Energy on the sale and module replacements related to service of fuel cell power plants in Asia, so accordingly, the concentration of sales to POSCO Energy may be lower in future years compared to 2016. As part of our Strategic Plan, we are in the process of diversifying our sales mix from both a customer specific and geographic perspective.

The international nature of our operations subjects us to a number of risks, including fluctuations in exchange rates, adverse changes in foreign laws or regulatory requirements and tariffs, taxes, and other trade restrictions.

Sustainability

FuelCell Energy's ultra-clean, efficient and reliable fuel cell power plants help our customers achieve their sustainability goals. These highly efficient and environmentally friendly products support the "Triple Bottom Line" concept of sustainability, consisting of environmental, social and economic considerations.

Product efficiency

The electrical efficiency of our fuel cell solutions ranges from approximately 47 percent to 60 percent depending on the configuration. This compares favorably to the average U.S. electrical grid of about 33 percent. Our solutions deliver this high electrical efficiency where the power is used, avoiding transmission. Transmission line losses average about six percent to nine percent for the U.S. grid, which is a hidden cost to ratepayers. In a combined heat and power configuration, total thermal efficiency of our fuel cell solutions can be up to 90 percent depending on the application.

Energy management

We utilize our fuel cells to provide a portion of the electricity used at our corporate office and at our North American manufacturing facility. We have installed a tri-generation fuel cell at our manufacturing facility that meets a portion of the power and heating needs, as well as generating high purity hydrogen used in the fuel cell manufacturing process. Generating multiple value streams on-site from the same unit of fuel avoids electrical transmission line losses, avoids the fuel cost and emissions of a combustion-based boiler typically used for heating, and cleanly generating hydrogen on-site avoids the carbon emissions and criteria pollutants emitted by standard hydrogen production at a distant location and transported via diesel truck.

Other examples of energy management include routing excess heat from production processes throughout the manufacturing facility to reduce both heating costs and associated emissions, utilizing the power produced by fuel cells undergoing R&D at our corporate office for a portion of the power needs of the facility, and installation of high efficiency lighting at our North American manufacturing facility and corporate office. We recognize that there is more to be done and utilize cross-functional teams to identify and evaluate additional areas for improvement.

While we continue to enhance and adopt sustainable business practices, we recognize this is an ongoing effort with more to be accomplished; such as further reducing the direct and indirect aspects of our carbon footprint. Our manufacturing process has a very low carbon footprint, utilizing an assembly oriented production strategy.

Product end-of-life management

We value sustainability just as seriously as our customers. We continue to incorporate sustainability best practices into our corporate culture and into the design, manufacture, installation and servicing of our fuel cell power plants. For example, at the end-of-life of our power plants, we refurbish and re-use certain parts of the power plant and we are able to recycle most of what we cannot re-use, supporting the sustainability concept of "cradle-to-grave". Some of the parts in the fuel cell module can be re-furbished, such as end plates, while the individual fuel cell components are sent to a smelter for recycling. The balance of plant has an operating life of twenty to twenty-five years, at which time metals such as steel and copper are reclaimed for scrap value. By weight, approximately 93% of the entire power plant can either be re-used or recycled.

We have a designated Sustainability Officer who promotes sustainable business practices in our manufacturing and administrative functions. For example, on the production floor, we reuse scrap from the manufacturing process, minimizing production waste. We are working to measure our carbon footprint in relation to production levels and actively working to reduce this carbon footprint.

Workforce health & safety

We work to continually improve what we feel is a robust safety program. This is demonstrated by an improving safety trend over each of the past 3 years. We have never had a workplace fatality at any of our facilities or power plant installations.

Sustainability also incorporates social risks and human rights and we will not knowingly support or do business with suppliers that treat workers improperly or unlawfully, including, without limitation, those that engage in human trafficking, child labor, slavery or other unlawful or morally reprehensible employment practices. We are continuing to implement comprehensive monitoring of our global supply chain to eliminate social risks and ensure respect for human rights. We contractually ensure that all qualified suppliers in our supply chain comply with the Fair Labor Standards Act (FLSA) of 1938, as amended. Our employees with supply chain responsibilities are trained on sustainability, social risks and human rights, and utilize this knowledge to evaluate existing suppliers and new potential suppliers on social and sustainability metrics to ensure compliance with our requirements and congruence with our Company values.

Materials sourcing

Assuring the absence of conflict minerals in our power plants is a continuing initiative. Our fuel cells, including the fuel cell components and completed fuel cell module, do not utilize any 3TG minerals (tin, tungsten, tantalum and gold) that are classified as conflict minerals. We do utilize componentry in the balance of plant such as computer circuit boards that utilize trace amounts of 3TG minerals. For perspective, total shipments in fiscal year 2015 weighed approximately 7.1 million pounds of which less than 2 pounds, or 0.00024%, represented 3TG minerals, so the presence of these minerals is minimal. Our conflict mineral disclosure filed with the Securities and Exchange Commission on Form SD contains specifics on the actions we are taking to avoid the use of conflict minerals.

Associates

At October 31, 2016, we had 580 full-time associates, of whom 246 were located at the Torrington, Connecticut manufacturing plant, 292 were located at the Danbury, Connecticut facility or various field offices, and 42 were located at our foreign locations. In addition, at October 31, 2016, the Company had 19 temporary workers. None of our associates is represented by a labor union or covered by a collective bargaining agreement. We believe our relations with our associates are good.

On December 1, 2016, we announced a decrease in the production level and a reduction in force that impacted 96 associates or approximately 17 percent of the global workforce.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

We are an integrated fuel cell company with an expanding global presence on three continents. We design, manufacture, sell, install, operate and service ultra-clean, highly efficient stationary fuel cell power plants for distributed power generation. Our power plants provide megawatt-class scalable on-site power and utility grid support, helping customers solve their energy, environmental and business challenges. Our plants are operating in more than 50 locations on three continents and have generated more than 5.6 million megawatt hours (MWh) of electricity, which is equivalent to powering more than 509,000 average size U.S. homes for one year.

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

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 in populated areas as they are virtually pollutant free, operate quietly and without vibrations, and have only modest space requirements. Locating the power generation near the point of use provides many advantages including less reliance on 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.

We are developing Advanced Technologies which leverage our commercial platform and expertise. Our Direct FuelCell® (DFC®) power plants utilize carbonate fuel cell technology, which is a very versatile type of fuel cell technology. Utilizing our core DFC plants, we have developed and are commercializing both a tri-generation distributed hydrogen configuration that generates electricity, heat and hydrogen for industrial or transportation uses, and a carbon capture application for coal or gas-fired power plants. We also are developing and working to commercialize solid oxide fuel cells (SOFC) for adjacent sub-megawatt applications to the markets for our megawatt-class DFC power plants as well as energy storage applications. These applications are complementary to our core products, leverage our existing customer base, project development, sales and service expertise, and are large markets.

RECENT DEVELOPMENTS

Restructuring

The Company completed a business restructuring on November 30, 2016 to reduce costs and align production levels with current levels of demand in a manner that is consistent with the Company's long-term strategic plan.

The Company is reducing materials spend as well as implementing various cost control initiatives. The workforce was reduced at both the North American production facility in Torrington, Connecticut, as well as at corporate offices in Danbury and remote locations. A total of 96 positions, or approximately 17 percent of the global workforce, was impacted. The Company expects that Operating expenses (Administrative and selling, Research and development expenses) will be approximately \$6.0 million lower on an annualized basis as a result of personnel reductions and related benefits, as well as lower overhead spending. The production rate has been reduced to 25 megawatts annually, from the prior rate of 50 megawatts annually, in order to position for delays in anticipated order flow. A personnel-related restructuring charge of approximately \$3.0 million will be incurred in fiscal year 2017, with approximately one half of the charge composed of cash severance costs and the remainder representing non-cash charges. This production level is anticipated to be temporary and will be reevaluated as order flow dictates, with any future increases being undertaken from what is now a lower cost basis.

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 reduction 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").

COMPARISON OF THE YEARS ENDED OCTOBER 31, 2016 AND 2015

Revenues and Costs of Revenues

Our revenues and cost of revenues for the years ended October 31, 2016 and 2015 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2016	2015	\$	%
Total revenues	\$ 108,252	\$ 163,077	\$(54,825)	(34)
Total costs of revenues	108,609	150,301	(41,692)	(28)
Gross (loss) profit	\$ (357)	\$ 12,776	\$(13,133)	(103)
Gross margin	(0.3)%	7.8%		

Total revenues for the year ended October 31, 2016 decreased \$54.8 million, or 34%, to \$108.3 million from \$163.1 million during the same period last year, due primarily to decreased product sales as discussed below. Total cost of revenues for the year ended October 31, 2016 decreased by \$41.7 million, or 28%, to \$108.6 million from \$150.3 million during the same period last year. The Company's gross margin was a loss of 0.3% in fiscal year 2016, as compared to the prior year margin of 7.8%. A discussion of the changes in product sales, service agreement and license revenues, and advanced technologies contract revenues follows.

Product Sales

Our product sales, cost of product sales and gross profit for the years ended October 31, 2016 and 2015 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2016	2015	\$	%
Product sales	\$ 62,563	\$ 128,595	\$(66,032)	(51)
Cost of product sales	63,474	118,530	(55,056)	(46)
Gross (loss) profit from product sales	\$ (911)	\$ 10,065	\$(10,976)	(109)
Product sales gross margin	(1.5)%	7.8%		

Product sales for the year ended October 31, 2016 included \$11.7 million of power plant revenue, \$41.8 million from sales of fuel cell kits and \$9.1 million of revenue primarily related to power plant component sales and engineering, procurement and construction services (EPC services). This is compared to product sales for the year ended October 31, 2015 which included \$19.6 million of power plant revenue, \$84.5 million fuel cell kits and module revenue and \$24.5 million of revenue primarily from power plant component sales and EPC services. Product sales decreased \$66.0 million, or 51%, for the year ended October 31, 2016 to \$62.6 million from \$128.6 million for the prior year period.

The decline in revenue during the period as compared to the prior year period is due primarily to lower revenue from POSCO Energy due to the transition of the kit and module sales to POSCO Energy to a royalty-based model. POSCO Energy has completed building its manufacturing facility and is manufacturing cell components and modules in South Korea. The Company's multi-year kit order with POSCO Energy concluded in the fourth fiscal quarter in 2016 and as a result, the Company does not expect to recognize product sales revenue at the levels previously recognized from POSCO Energy. The Company will receive (under Service agreements) license revenues from a 3.0% royalty on POSCO Energy net product sales manufactured in South Korea. We believe that this revenue stream will grow over time as POSCO Energy increases production.

Also contributing to the decline in revenue over the comparable period is certain power plants that are being recognized as Project assets on the balance sheet and accordingly, product and engineering, procurement and construction revenue is not recognized when sales are made. As the Company's development business expands, it is installing power plants for customers that have executed power purchase agreements (PPAs). These assets generally are the subject of sale-leaseback transactions with PNC, which are recorded under the financing method of accounting for a sale-leaseback. Under the finance method, the Company does not recognize the proceeds received from the lessor as a sale of such assets. The power plants are recognized as Project assets on the balance sheet and revenue will be recognized as electricity revenue is earned over the life of the power purchase agreement or when a definitive sales agreement is executed.

With the transition of manufacturing to South Korea in POSCO Energy's manufacturing facility for POSCO Energy's demand, we expect that production in the Company's Torrington, CT manufacturing facility will be largely dictated by the demand of the U.S. market. As a result, quarterly revenue will vary depending on the timing and level of demand in the U.S. and the project revenue recognition method.

Cost of product sales decreased \$55.1 million for the year ended October 31, 2016, to \$63.5 million compared to \$118.5 million in the prior year period. The decrease in cost of sales in fiscal 2016 was driven by lower overall product volume during

the fiscal year and retention of project assets on balance sheet versus a sale to end customer or investor. 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 assembly and conditioning equipment sold to POSCO Energy, warranty expense and inventory excess and obsolescence charges.

At October 31, 2016, product sales backlog totaled approximately \$24.9 million compared to \$90.7 million at October 31, 2015.

Service Agreements and License Revenues and Cost of Revenues

Our service agreements and license revenues and associated cost of revenues for the years ended October 31, 2016 and 2015 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2016	2015	\$	%
Service agreements and license revenues	\$32,758	\$21,012	\$11,746	56
Cost of service agreements and license revenues	33,256	18,301	14,955	82
Gross (loss) profit from service agreements and license revenues	\$ (498)	\$ 2,711	\$ (3,209)	118
Service agreements and license revenues gross margin	(1.5)%	12.9%		

Revenues for the year ended October 31, 2016 from service agreements and license fee and royalty agreements totaled \$32.8 million, compared to \$21.0 million for the prior year. The increase relates primarily to more module exchanges performed in 2016, some of which resulted from service contract extensions for certain projects. Revenue for license fee and royalty agreements totaled \$6.2 million and \$4.7 million for the years ended October 31, 2016 and 2015, respectively.

Service agreements and license cost of revenues increased to \$33.3 million for fiscal year 2016 from \$18.3 million for the prior year, resulting in a decrease in gross margin to a loss of 1.5% from a profit of 12.9% during the year-ago period. The decrease in gross margin over the prior year relates to an increase in

performance guarantee accruals due to plant performance at certain sites, contract loss accruals recorded in connection with the extension of certain legacy contracts as well as due to changes in estimated costs for certain legacy contracts, and charges incurred in connection with termination of service agreements at certain sites.

At October 31, 2016, service backlog totaled approximately \$347.3 million compared to \$254.1 million at October 31, 2015. Service backlog does not include future royalties or license revenues. This backlog is for service agreements of up to twenty years and is expected to generate positive margins and cash flows based on current estimates.

Advanced Technologies Contracts

Advanced technologies contracts revenue and related costs for the years ended October 31, 2016 and 2015 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2016	2015	\$	%
Advanced technologies contracts	\$12,931	\$13,470	\$ (539)	(4)
Cost of advanced technologies contracts	11,879	13,470	(1,591)	(12)
Gross profit	\$ 1,052	\$ —	\$ 1,052	
Advanced technologies contracts gross margin	8.1%	—%		

Advanced technologies contracts revenue for the year ended October 31, 2016 was \$12.9 million, representing a decrease of \$0.5 million when compared to \$13.5 million of revenue for the year ended October 31, 2015. Cost of advanced technologies contracts decreased \$1.6 million to \$11.9 million for the year ended October 31, 2016, compared to \$13.5 million for the prior year. Gross profit from advanced technologies contracts for the year ended October 31, 2016 was \$1.1 million compared

to breakeven for the year ended October 31, 2015, and gross margin was 8.1% compared to breakeven during the prior year period. The increase in gross margin is related to timing and mix of contracts currently being performed, particularly the transition to a larger mix of private industry contracts.

At October 31, 2016, advanced technology contract backlog totaled approximately \$60.1 million compared to \$36.5 million at October 31, 2015.

Administrative and selling expenses

Administrative and selling expenses were \$25.2 million for the year ended October 31, 2016 compared to \$24.2 million for the year ended October 31, 2015. The increase results primarily from higher business development costs incurred early in the year. Business development costs may vary from period to period depending on the nature of customer and state-level requests for proposals.

Research and development expenses

Research and development expenses increased \$3.4 million to \$20.8 million for the year ended October 31, 2016, compared to \$17.4 million during the year ended October 31, 2015. The increase in research and development expenses reflects increased research and development activity related to near-term product introductions, including the HEFC. This configuration has an overall electrical efficiency of approximately sixty percent and is designed for utility scale applications and data centers. The first power plant is currently being installed and is expected to be fully operational in fiscal year 2017.

Loss from operations

Loss from operations for the year ended October 31, 2016 was \$46.4 million compared to a loss of \$28.9 million for the year ended October 31, 2015, primarily as a result of lower gross margins in fiscal year 2016.

Interest expense

Interest expense for the years ended October 31, 2016 and 2015 was \$5.0 million and \$3.0 million, respectively. The increase results from borrowings under the Company's new Hercules Loan and Security Agreement, the \$10.0 million low-cost loan granted by the State of Connecticut in early 2016, and interest expense related to sales-leaseback transactions recorded under the finance method. The interest expense for both periods includes interest for the amortization of the redeemable preferred stock of a subsidiary fair value discount of \$1.8 million.

Other income (expense), net

Other income (expense), net, was other income, net of \$0.6 million for the year ended October 31, 2016 compared to other income, net of \$2.4 million for the year ended October 31, 2015. Unrealized foreign exchange gains aggregated to \$0.1 million and \$1.7 million in fiscal year 2016 and 2015, respectively, which primarily related to the preferred stock obligation of our Canadian subsidiary, FCE Ltd. FCE Ltd.'s functional currency

is U.S. dollars, while the preferred stock obligation is payable in Canadian dollars. Refundable research and development tax credits for the years ended October 31, 2016 and 2015 were \$0.4 million and \$0.6 million, respectively.

Provision for income taxes

We have not paid federal or state income taxes in several years due to our history of net operating losses (NOLs), although we have paid income taxes in South Korea. For the year ended October 31, 2016, our provision for income taxes was \$0.5 million, compared to \$0.3 million in the prior year. 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.

At October 31, 2016, we had \$748.6 million of federal NOL carryforwards that expire in the years 2020 through 2035 and \$405.8 million in state NOL carryforwards that expire in the years 2015 through 2035. Additionally, we had \$11.1 million of state tax credits available, of which \$0.7 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 each of the years ended October 31, 2016 and 2015 was \$0.3 million. During October 2016, the Company purchased the noncontrolling interest in FuelCell Energy Services, GmbH, from Fraunhofer IKTS, giving the Company sole ownership and eliminating future noncontrolling interest in earnings.

Preferred Stock dividends

Dividends recorded and paid on the Series B Preferred Stock were \$3.2 million in each of the years ended October 31, 2016 and 2015.

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 years ended October 31, 2016 and 2015, net loss attributable to common shareholders was \$54.2 million and \$32.6 million, respectively, and basic and diluted loss per common share was \$1.82 and \$1.33, respectively.

COMPARISON OF THE YEARS ENDED OCTOBER 31, 2015 AND 2014

Revenues and Costs of Revenues

Our revenues and cost of revenues for the years ended October 31, 2015 and 2014 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2015	2014	\$	%
Total revenues	\$163,077	\$180,293	\$(17,216)	(10)
Total costs of revenues	150,301	166,567	(16,266)	(10)
Gross profit	\$ 12,776	\$ 13,726	\$ (950)	(7)
Gross margin	7.8%	7.6%		

Total revenues for the year ended October 31, 2015 decreased \$17.2 million, or 10%, to \$163.1 million from \$180.3 million during the same period last year. Total cost of revenues for the year ended October 31, 2015 decreased by \$16.3 million, or 10%, to \$150.3 million from \$166.6 million during the same period last year. The Company generated a 7.8% gross margin percentage in fiscal year 2015, which is improved from the prior year margin of 7.6% despite lower revenue. A discussion of the changes in product sales, service agreement and license revenues, and advanced technologies contract revenues follows.

Product Sales

Our product sales, cost of product sales and gross profit for the years ended October 31, 2015 and 2014 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2015	2014	\$	%
Product sales	\$128,595	\$136,842	\$(8,247)	(6)
Cost of product sales	118,530	126,866	(8,336)	(7)
Gross profit from product sales	\$ 10,065	\$ 9,976	\$ 89	1
Product sales gross margin	7.8%	7.3%		

Product sales for the year ended October 31, 2015 included \$19.6 million of power plant revenue, \$84.5 million from sales of fuel cell kits and modules and \$24.5 million of revenue primarily related to power plant component sales and engineering, procurement and construction services (EPC services). This is compared to product sales for the year ended October 31, 2014 which included \$22.2 million of power plant revenue, \$95.7 million fuel cell kits and module revenue and \$18.9 million of revenue primarily from power plant component sales and EPC services. Product sales decreased \$8.2 million, or 6%, for the year ended October 31, 2015 to \$128.6 million from \$136.8 million for the prior year period. The decline in revenue during the period is due to decreased sales of fuel cell kits to POSCO and power plant revenue partly offset by an increase in engineering and construction services.

Cost of product sales decreased \$8.3 million for the year ended October 31, 2015, to \$118.5 million compared to \$126.9 million in the same prior year period. Gross profit increased slightly despite the lower sales volume primarily due to lower warranty and quality expenses. 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 assembly and conditioning equipment sold to POSCO Energy, warranty expense and inventory excess and obsolescence charges.

At October 31, 2015, product sales backlog totaled approximately \$90.7 million compared to \$113.1 million at October 31, 2014.

Service Agreements and License Revenues and Cost of Revenues

Our service agreements and license revenues and associated cost of revenues for the years ended October 31, 2015 and 2014 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2015	2014	\$	%
Service agreements and license revenues	\$21,012	\$25,956	\$(4,944)	(19)
Cost of service agreements and license revenues	18,301	23,037	(4,736)	(21)
Gross profit from service agreements and license revenues	\$ 2,711	\$ 2,919	\$ (208)	(7)
Service agreements and license revenues gross margin	12.9%	11.2%		

Revenues for the year ended October 31, 2015 from service agreements and license fee and royalty agreements totaled \$21.0 million, compared to \$26.0 million for the prior year. The decrease was due to the timing of module exchanges during the year ended October 31, 2015 compared to the prior year period. Revenue for license fee and royalty agreements totaled \$4.7 million and \$4.3 million for the years ended October 31, 2015 and 2014, respectively.

Service agreements and license cost of revenues decreased to \$18.3 million for fiscal year 2015 from \$23.0 million for the prior year, resulting in an increase in gross margin to 12.9%

from 11.2% during the year-ago period. The increase in gross margin reflects higher margins recognized on new service agreements related to the growing fleet. 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 continue to increase.

At October 31, 2015, service backlog totaled approximately \$254.1 million compared to \$196.8 million at October 31, 2014. Service backlog does not include future royalties, license or electricity revenues.

Advanced Technologies Contracts

Advanced technologies contracts revenue and related costs for the years ended October 31, 2015 and 2014 were as follows:

<i>(dollars in thousands)</i>	Years Ended October 31,		Change	
	2015	2014	\$	%
Advanced technologies contracts	\$13,470	\$17,495	\$(4,025)	(23)
Costs of advanced technologies contracts	13,470	16,664	(3,194)	(19)
Gross profit	\$ —	\$ 831	\$ (831)	(100)
Advanced technologies contracts gross margin	—%	4.7%		

Advanced technologies contracts revenue for the year ended October 31, 2015 was \$13.5 million, representing a decrease of \$4.0 million when compared to \$17.5 million of revenue for the year ended October 31, 2014. The decrease is primarily attributable to the completion of a data center fuel cell power plant research project. Cost of advanced technologies contracts decreased \$3.2 million to \$13.5 million for the year ended October 31, 2015, compared to \$16.7 million for the prior year. Gross profit from advanced technologies contracts for the year ended October 31, 2015 was breakeven compared to \$0.8 million for the year ended October 31, 2014, and gross margin was breakeven compared to 4.7% during the prior year period. The decrease in gross margin is related to the mix of contracts currently being performed which include cost share obligations.

At October 31, 2015, advanced technology contract backlog totaled approximately \$36.5 million compared to \$24.0 million at October 31, 2014.

Administrative and selling expenses

Administrative and selling expenses were \$24.2 million for the year ended October 31, 2015 compared to \$22.8 million for the year ended October 31, 2014. The increase results primarily from increased marketing activity and project proposal expenses for multiple power plant installations and advanced technology contracts.

Research and development expenses

Research and development expenses decreased \$0.8 million to \$17.4 million for the year ended October 31, 2015, compared to \$18.2 million during the year ended October 31, 2014. The decrease in research and development expenses resulted from completion of prior year initiatives in enhancing the cost profile of multi-megawatt installations. Decreases were partially offset by increased investment in product development of the high efficiency fuel cell. The Company's internal research and development is focused on initiatives that have near-term product introduction potential and product cost reduction opportunities, all of which are expected to expand market opportunities.

Loss from operations

Loss from operations for the year ended October 31, 2015 was \$28.9 million compared to a loss of \$27.3 million in for the year ended October 31, 2014.

Interest expense

Interest expense for the years ended October 31, 2015 and 2014 was \$3.0 million and \$3.6 million, respectively. Interest expense for fiscal year 2014 includes interest of \$0.4 million associated with 8.0% Unsecured Convertible Notes which were converted to common stock during fiscal year 2014. Interest expense for both periods includes interest for the amortization of the redeemable

preferred stock of a subsidiary fair value discount of \$1.8 million and \$2.0 million, respectively.

Other income (expense), net

Other income (expense), net, was net income of \$2.4 million for the year ended October 31, 2015 compared to net expense of \$7.5 million for the year ended October 31, 2014. The fiscal year 2015 income includes unrealized foreign exchange gains of \$1.7 million which primarily related to the preferred stock obligation of our Canadian subsidiary, FCE Ltd for which the functional currency is U.S. dollars, which is payable in Canadian dollars and refundable research and development tax credits of \$0.6 million. The fiscal year 2014 expense includes a charge of \$8.4 million related to the make-whole payment upon conversion of \$38.0 million of principal of then-existing 8.0% Convertible Notes. The Company primarily used common stock to settle this make-whole obligation.

Provision for income taxes

We have not paid federal or state income taxes in several years due to our history of net operating losses (NOLs), although we have paid income taxes in South Korea. For the year ended October 31, 2015, our provision for income taxes was \$0.3 million. 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.

At October 31, 2015, we had \$721.0 million of federal NOL carryforwards that expire in the years 2020 through 2036 and \$406 million in state NOL carryforwards that expire in the years 2015 through 2035. Additionally, we had \$11.0 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 years ended October 31, 2015 and 2014 was \$0.3 million and \$0.8 million, respectively.

Preferred Stock dividends

Dividends recorded and paid on the Series B Preferred Stock were \$3.2 million in each of the years ended October 31, 2015 and 2014.

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 years ended October 31,

2015 and 2014, net loss attributable to common shareholders was \$32.6 million and \$41.3 million, respectively, and basic and diluted loss per common share was \$1.33 and \$2.02, respectively.

Customer Concentrations

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 expand, diversifying our revenue streams, 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.

LIQUIDITY AND CAPITAL RESOURCES

At October 31, 2016, we believe that our cash, cash equivalents on hand, cash flows from operating activities, availability under our loan facilities and access to the capital markets will be sufficient to meet our working capital and capital expenditure needs for at least the next twelve months.

Cash and cash equivalents including restricted cash totaled \$118.3 million at October 31, 2016 compared to \$85.7 million at October 31, 2015. At October 31, 2016, restricted cash and cash equivalents was \$34.1 million, of which \$9.4 million was classified as current and \$24.7 million was classified as non-current, compared to \$26.9 million total restricted cash and cash equivalents at October 31, 2015, of which \$6.3 million was classified as current and \$20.6 million was classified as non-current. In addition, the Company has \$38.2 million of availability under its project finance loan agreement with NRG Energy through its finance subsidiary, which can be used for project asset development. We also have an effective shelf registration statement on file with the SEC for issuance of debt and equity securities.

On November 30, 2016 the Company completed a business restructuring to reduce costs and align production levels with current levels of demand in a manner that is consistent with the Company's long-term strategic plan.

The Company is reducing materials spend as well as implementing various cost control initiatives. The workforce was reduced at both the North American production facility in Torrington, Connecticut, as well as at corporate offices in Danbury and remote locations. A total of ninety-six positions, or approximately seventeen percent of the global workforce, was impacted. In conjunction with the personnel reduction, the Company is implementing other measures to reduce operating costs by at least \$6 million on an annualized basis. The production rate has been reduced to twenty-five megawatts annually, from the prior rate of fifty megawatts annually, in order to position for delays in anticipated order flow. A personnel-related restructuring charge of approximately \$3.0 million will

be incurred in fiscal year 2017, with approximately one half of the charge composed of cash severance costs and the remainder representing non-cash charges. This production level is anticipated to be temporary and will be reevaluated as order flow dictates, with any future increases being undertaken from what is now a lower cost basis.

Project development activities are continuing with proposals being submitted for a utility-scale fuel cell only request for proposal process in New York with decisions expected in the first half of 2017. The Company also hopes to continue to develop and complete utility-scale fuel cell projects in Connecticut under future processes to further the State's stated critical energy goals. Favorable legislative and regulatory developments in New York and California are expected to be supportive of projects in the Company's pipeline and the European market is expanding as illustrated by the second utility order for E.ON Connecting Energies GMBH which was recently announced by the Company. Fuel cell carbon capture opportunities are advancing with a demonstration project at a utility-owned coal/gas-fired power plant and developing interest from Canadian oil sands operators as demonstrated by a recently announced engineering study.

The Company's future liquidity will be dependent on obtaining a combination of increasing order and contract volumes, increasing cash flows from our power purchase agreement and service portfolios and cost reductions necessary to achieve profitable operations. Management currently estimates that the Company could be net income positive in the range of 60-70 MW of annual production volume. This estimate assumes a sales mix of turn-key projects in the U.S. and Europe, royalties from the Asia market and growing service, power purchase agreement and advanced technologies revenues and margins.

Our business model continues to evolve. As a result of the strong, predictable and recurring cash flows of our projects, proliferation of power purchase agreements in the industry and access to capital, the Company has been retaining projects on the balance sheet versus sale to an end customer, investor, utility or YieldCo. This provides the Company with the full benefit of future cash flows under the PPA's. Our operating portfolio (currently 11.2 MW) contributes higher long-term cash flows to the Company than if these projects had been sold. The Company plans to continue to grow this portfolio while also selling projects to investors. Retaining long-term cash flow positive PPAs combined with our service fleet reduces reliance on new project sales to achieve cash flow positive operations.

The Company has a contract backlog totaling approximately \$432.3 million at October 31, 2016. This backlog includes approximately \$347.3 million of service and power purchase agreements, with an average term of approximately 15 years weighted based on dollar backlog and utility service contracts up to twenty years in duration, providing a committed source of revenue to the year 2036. The Company also has a strong sales and service pipeline of potential projects in various stages of development in both North America and Europe. This pipeline includes projects for on-site "behind-the-meter" applications and for grid support multi-megawatt fuel cell parks. Behind-the-meter applications provide end users with predictable long-term economics, on-site power including micro-grid capabilities and reduced carbon emissions. On-site projects being developed are for project sizes ranging from 1.4MW-14.0 MW for end users such as pharmaceuticals companies, hospitals, and universities.

In addition, a number of multi-megawatt utility grid support projects are being developed for utilities and independent power producers to support the grid where power is needed. Utility scale projects in our pipeline range in size from 5.6 MW up to 63 MW. These projects help both utilities and states meet their renewable portfolio standards.

The Company produced approximately 62 MW during fiscal year 2016 at its production facility in Torrington, Connecticut. This facility is currently producing at an annual rate of 25MW and has an annual manufacturing capacity of 100 MW under its current configuration. At October 31, 2016, our backlog of future production for existing product sales, service and power purchase agreements is approximately 102.8 MW for the U.S. and European markets. We expect approximately 13 MW to be delivered over the next twelve months. The Company is targeting converting at least 70 MW of our sales pipeline into incremental backlog in 2017 in order to deploy inventory and project assets as well as utilize our available capacity. Based on the timing of new contracts, the Company will evaluate increases to the production schedule. Based on hiring and adjustments to the supply chain, we estimate that it takes approximately six to nine months to incrementally ramp to an additional 25 MW of annualized production volume.

Factors that may impact our liquidity in 2017 and beyond include:

- Our expanding development of large scale turn-key projects in the United States requires liquidity and is expected to continue to have liquidity requirements in the future. Our business model includes the development of turn-key projects and we may commence construction upon the execution of a multi-year power purchase agreement with an end-user that has a strong credit profile. We may choose to substantially complete the construction of a project before it is sold to a project investor. Alternatively, we may choose to retain ownership of one or more of these projects after they become operational if we determine it would be of economic and strategic benefit to do so. If, for example, we cannot sell a project at economics that are attractive to us, we may instead elect to own and operate such projects, generally until such time that we can sell a project on economically attractive terms. In markets where there is a compelling value proposition, we may also build one or more power plants on an uncontracted "merchant" basis in advance of securing long-term contracts for the project attributes (including energy, renewable energy credits and capacity). Delays in construction progress or in completing the sale of our projects which we are self-financing may impact our liquidity. At October 31, 2016, we had \$40.0 million of committed construction period and term project financing, of which \$38.2 million was available, to enable this strategy though we may seek to use our cash balances or other forms of financing as necessary. We have partnered with financial institutions to secure long-term debt and leases for our PPA portfolio. In fiscal year 2016, we financed approximately \$41.5 million of projects and expect that activity to continue in 2017.
- As project sizes evolve, project cycle times may increase. We may need to make significant up-front investments of resources in advance of the receipt of any cash from the sale of our projects. These amounts include development costs, interconnection costs, posting of letters of credit or other forms of security, and incurring engineering, permitting, legal, and other expenses.
- The amount of accounts receivable at October 31, 2016 and 2015 was \$38.7 million (\$14.1 million classified as Other assets, net) and \$60.8 million, respectively. Included in accounts receivable at October 31, 2016 and 2015 was \$22.4 million and \$41.0 million, respectively, of unbilled accounts receivable. Unbilled accounts receivable represents revenue that has been recognized in advance of billing the customer under the terms of the underlying contracts. Such costs have been funded with working capital and the unbilled amounts are expected to be billed and collected from customers once we meet the billing criteria under the contracts. At this time, we bill our customers according to the contract terms. Our accounts receivable balances may fluctuate as of any balance sheet date depending on the timing of individual contract milestones and progress on completion of our projects.
- The amount of total inventory at October 31, 2016 and 2015 was \$73.8 million and \$65.8 million, respectively, which includes work in process inventory totaling \$48.5 million and \$36.7 million, respectively. As we continue to execute on our business plan we must produce fuel cell modules and procure balance of plant components in required volumes to support our planned construction schedules and potential customer contractual requirements. As a result, we may manufacture modules or acquire balance of plant in advance of receiving payment for such activities. This may result in fluctuations of inventory and use of cash as of any balance sheet date.
- Cash and cash equivalents at October 31, 2016 included \$5.3 million of cash advanced by POSCO Energy for raw material purchases made on its behalf by FuelCell Energy. Under an inventory procurement agreement that ensures coordinated purchasing from the global supply chain, FuelCell Energy provides procurement services for POSCO Energy and receives compensation for services rendered. While POSCO Energy makes payments to us in advance of supplier requirements, quarterly receipts may not match disbursements.
- The amount of total project assets including current and long-term at October 31, 2016 and October 31, 2015 was \$47.1 million and \$12.2 million, respectively. Project assets consist of capitalized costs for fuel cell projects in various stages of development, whereby we have entered into power purchase agreements prior to entering into a definitive sales or long-term financing agreement for the project, or of capitalized costs for fuel cell projects which are the subject of a sale-leaseback transaction with PNC or projects in development for which we expect to secure long-term contracts. There were no short-term project assets as of October 31, 2016. The long-term portion of project assets of \$29.3 million represents completed installations for which there is a PPA and which are the subject of our sale-leaseback program and \$17.8 million of project assets represent projects in development. At October 31, 2016, we had 8.4 MW of our operating project assets that we estimate will generate approximately \$6.0 million a year of revenue for the Company. We expect this portfolio to continue to grow in fiscal year 2017.
- Under the terms of certain contracts, the Company will provide performance security for future contractual obligations. At October 31, 2016, we have pledged approximately \$34.1 million of our cash and cash equivalents as collateral for performance security and for letters of credit for certain banking requirements and contracts. This balance may increase with a growing backlog and installed fleet.

- For fiscal year 2017, we forecast capital expenditures in the range of \$9.0 - \$12.0 million compared to \$7.7 million in fiscal year 2016. We have commenced the first phase of our project to expand our existing 65,000 square foot manufacturing facility in Torrington, Connecticut by approximately 102,000 square feet for a total size of 167,000 square feet. Initially, this additional space will be used to enhance and streamline logistics functions through consolidation of satellite warehouse locations and will provide the space needed to reconfigure the existing production process to improve manufacturing efficiencies and realize cost savings. On November 9, 2015, the Company closed on a definitive Assistance Agreement with the State of Connecticut and received a disbursement of \$10 million to be used for the first phase. Pursuant to the terms of the loan, payment of principal is deferred for the first four years of this 15 year loan. Interest at a fixed rate of 2% is payable beginning December 2015. Up to 50 percent of the principal balance is forgivable if certain job creation and retention targets are met.

In addition to cash flows from operations, we may also pursue raising capital through a combination of: (i) sales of equity to public markets or strategic investors, (ii) debt financing (with improving operating results as the business grows, the Company expects to have increased access to the debt markets to finance working capital and capital expenditures), (iii) project level debt and equity financing and (iv) potential local or state Government loans or grants in return for manufacturing job creation and retention. 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.

Cash Flows

Cash and cash equivalents and restricted cash and cash equivalents totaled \$118.3 million at October 31, 2016 compared to \$85.7 million at October 31, 2015. At October 31, 2016, restricted cash and cash equivalents was \$34.1 million, of which \$9.4 million was classified as current and \$24.7 million was classified as non-current, compared to \$26.9 million total restricted cash and cash equivalents at October 31, 2015, of which \$6.3 million was classified as current and \$20.6 million was classified as non-current.

The following table summarizes our consolidated cash flows:

	2016	2015	2014
Consolidated Cash Flow Data:			
Net cash used in			
operating activities	\$(46,595)	\$(44,274)	\$(57,468)
Net cash used in			
investing activities	(41,452)	(6,930)	(7,079)
Net cash provided by			
financing activities	120,658	28,219	95,941
Effects on cash from changes			
in foreign currency rates	(35)	(108)	(260)
Net increase (decrease)			
in cash, cash			
equivalents, and			
restricted cash	\$ 32,576	\$(23,093)	\$ 31,134

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

Operating Activities—Cash used in operating activities was \$46.6 million during fiscal year 2016 compared to \$44.3 million used in operating activities during fiscal year 2015. Net cash used in operating activities during fiscal year 2016 is primarily the result of a net loss of \$51.2 million and a \$26.6 million decrease in deferred revenue. Cash used by operating activities also included a \$3.0 million reduction in accounts payable, and an \$8.1 million increase in inventories. As we continue to execute on our business plan we must produce fuel cell modules and procure balance of plant components in required volumes to support our planned construction schedules and potential customer contractual requirements. Cash used by operating activities was partially offset by a \$30.2 million decrease in accounts receivable.

Net cash used in operating activities during fiscal year 2015 is primarily a result of increases in current project assets and inventory of \$11.4 million and \$10.1 million, respectively, due to an increase in power purchase agreements in backlog and projects under development versus direct sales in the comparable prior year period. Decreases in fiscal year 2015 accounts payable and deferred revenue of \$7.2 million and \$3.9 million, respectively, also contributed to cash used in operating activities. These changes were partially offset by a decrease in accounts receivable of \$3.2 million and an increase in accrued liabilities of \$6.4 million.

Investing Activities—Cash used in investing activities was \$41.5 million during fiscal year 2016 compared to net cash used in investing activities of \$6.9 million during fiscal year 2015. Net cash used during fiscal year 2016 consists of a \$33.7 million investment in project assets as a result of expanding our business model to retain operating PPAs with contract durations of up to twenty years. At October 31, 2016, we had 8.4 MW of operating assets expected to generate revenues of approximately \$6.0 million per year on an annualized basis. Capital expenditures totaled \$7.7 million primarily related to the expansion of our Torrington facility.

Net cash used during fiscal year 2015 pertains to capital expenditures including expenditures for upgrades to existing machinery, equipment and investments in automation equipment that improved the efficiency and cost profile of our operations and facilitated our Torrington facility expansion which commenced in early 2016.

Financing Activities—Net cash provided by financing activities was \$120.7 million during fiscal year 2016 compared to \$28.2 million in the prior year period. Net cash provided by financing activities during the year ended October 31, 2016 includes net proceeds from open market sales of common stock of \$36.2 million and proceeds from a registered direct offering of common stock and warrants to a single institutional investor totaling \$34.7 million. The Company also had net debt proceeds of \$55.5 million consisting of long-term debt from the State of Connecticut for our facility expansion, Hercules Capital Inc. to support working capital and NRG Energy and PNC Energy Capital to support long-term project financing. Proceeds of financing activities were partially offset primarily by the payment of preferred dividends and return of capital payments of \$4.2 million and the payment of deferred finance costs of \$1.8 million.

Net cash provided by financing activities during the fiscal year ended October 31, 2015 includes proceeds from open market sales of common stock of \$27.1 million and net debt proceeds of \$5.2 million, partially offset by the payment of preferred dividends and return of capital payments of \$4.2 million.

Commitments and Significant Contractual Obligations

A summary of our significant future commitments and contractual obligations at October 31, 2016 and the related payments by fiscal year is summarized as follows:

<i>(dollars in thousands)</i>	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Contractual Obligations					
Purchase commitments ⁽¹⁾	\$ 61,677	\$52,141	\$ 9,455	\$ 81	\$ —
Series 1 Preferred obligation ⁽²⁾	7,221	956	1,911	4,354	—
Term loans (principal and interest)	49,315	4,553	26,208	2,571	15,983
Capital and operating lease commitments ⁽³⁾	8,209	1,695	2,066	697	3,751
Sale-leaseback financing obligation ⁽⁴⁾	24,940	2,906	6,809	6,098	9,127
Option fee ⁽⁵⁾	1,450	500	650	300	—
Series B Preferred dividends payable ⁽⁶⁾	—	—	—	—	—
Total	\$152,812	\$62,751	\$47,099	\$14,101	\$28,861

(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 percent quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends at a rate of 1.25 percent 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) Future minimum lease payments on capital and operating leases.

(4) The amount represents payments due on sale-leaseback transactions of our wholly-owned subsidiary, under its financing agreement with PNC. Projects financed under this facility are generally payable in fixed quarterly installments over a ten-year period.

(5) The Company entered into an agreement with one of its customers on June 29, 2016 which includes a fee for the purchase of the plants at the end of the term of the agreement. The option fee is payable in installments over the term of the agreement.

(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 (\$141) for 20 trading days during any consecutive 30 trading day period.

In April 2016, the Company entered into a loan and security agreement (the "Agreement") with Hercules Capital, Inc. ("Hercules") for an aggregate principal amount of up to \$25.0 million, subject to certain terms and conditions. The Company received an initial term loan advance on the date of closing of \$15.0 million and an additional \$5.0 million in September 2016. As of October 31, 2016, drawdowns and accrued amortization of the end of term charge on the facility aggregated \$20.5 million. The Company may take an additional loan advance of \$5.0 million beginning on the later of January 1, 2017 or the date certain milestones are met, and June 15, 2017. The loan is a 30 month secured facility and the term loan interest is currently 9.5%. Interest is paid on a monthly basis. As of October 31, 2016, interest only payments are required through November 1, 2017. If certain additional performance milestones are achieved, the interest only period would be extended to May 1, 2018. Upon completion of interest only payments, the loan balance and all accrued and unpaid interest is due and payable in equal monthly installments by October 1, 2018. Per the terms of the Agreement, there is an end of term charge of \$1.7 million which is being accreted by the effective interest rate method which would increase to \$2.1 million if the Company receives an additional \$5.0 million advance as discussed above.

On November 9, 2015, the Company closed on a definitive Assistance Agreement with the State of Connecticut and received a disbursement of \$10.0 million to be used for the first phase of the expansion of our Torrington, Connecticut manufacturing facility. In conjunction with this financing, the Company entered into a \$10.0 million Promissory Note and related security agreements securing the loan with equipment liens and a mortgage on its Danbury, Connecticut location. Pursuant to the terms of the loan, payment of principal is deferred for the first four years. Interest at a fixed rate of 2 percent is payable beginning December 2015. The financing is payable over 15 years, and is predicated on certain terms and conditions, including the forgiveness of up to 50 percent of the loan principal if certain job retention and job creation targets are reached. In addition, the Company may receive up to \$10.0 million of non-refundable transferable tax credits if certain terms and conditions are met.

The second phase of our manufacturing expansion, for which we will be eligible to receive an additional \$10.0 million in low-cost financing from the State of Connecticut, will commence as demand supports. This includes adding manufacturing equipment to increase annual capacity from the current 100 megawatts to

at least 200 megawatts. Plans for this phase also include the installation of a megawatt scale tri-generation fuel cell plant to power and heat the facility as well as provide hydrogen for the manufacturing process of the fuel cell components, and the creation of an Advanced Technology Center for technology testing and prototype manufacturing. In addition, the final stage of the fuel cell module manufacturing will be relocated to the Torrington facility from its current location at the Danbury, Connecticut headquarters, which will reduce logistics costs. The total cost of both phases of the expansion could be up to \$65.0 million over a five-year period, including the proposed Advanced Technology Center and tri-generation fuel cell power plant.

On July 30, 2014, the Company's subsidiary, FuelCell Energy Finance, LLC ("FuelCell Finance") entered into a Loan Agreement with NRG. Pursuant to the Loan Agreement, NRG has extended a \$40.0 million revolving construction and term financing facility to FuelCell Finance for the purpose of accelerating project development by the Company and its subsidiaries. FuelCell Finance and its subsidiaries may draw on the facility to finance the construction of projects through the commercial operating date of the power plants. FuelCell Finance has the option to continue the financing term for each project after the commercial operating date for a maximum term of five years per project. The interest rate is 8.5 percent per annum for construction-period financing and 8.0 percent thereafter. At October 31, 2016, drawdowns on the facility aggregated \$1.8 million.

In March 2013, we closed on a long-term loan agreement with the Connecticut Clean Energy and Finance Investment Authority (CEFIA, now known as the CT Green Bank) totaling \$5.9 million in support of the Bridgeport Fuel Cell Project. The loan agreement carries an interest rate of 5.0 percent and principal repayments will commence on the eighth anniversary of the project's provisional acceptance date which is in December 2021. Outstanding amounts are secured by future cash flows from the Bridgeport contracts. The outstanding balance on the CEFIA Note as of October 31, 2016 was \$6.1 million.

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, 2016, we had an outstanding balance of \$2.6 million on this loan. The interest rate is 5 percent. Interest only payments commenced in January 2014 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.

We have pledged approximately \$34.1 million of our cash and cash equivalents as performance security and for letters of credit for certain banking requirements and contracts. At October 31, 2016, outstanding letters of credit totaled \$7.9 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. The restricted cash balance as of July 31, 2016 includes \$15.0 million which was placed in a Grantor's Trust account to secure certain FCE obligations under the 15-year service agreement for the Bridgeport Fuel Cell Park Project and is reflected as long-term restricted cash. The restrictions on the \$15.0 million will be removed upon completion of the final module exchange at the Bridgeport Fuel Cell Park Project

under the terms of the services agreement. The restricted cash balance as of October 31, 2016 also includes \$8.5 million to support obligations of the power purchase and service agreements related to the PNC sale-leaseback transaction.

At October 31, 2016, 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 addition to the commitments listed in the table above, we have the following outstanding obligations:

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. 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 typically not required to produce minimum amounts of power under our PPA agreements and we typically have the right to terminate PPA agreements by giving written notice to the customer, subject to certain exit costs. As of October 31, 2016, our operating portfolio is 11.2 MW.

Service and warranty agreements

We warranty our products for a specific period of time against manufacturing or performance defects. Our standard U.S. warranty period is generally fifteen months after shipment or twelve months after acceptance of the product. We have agreed to warranty kits and components for twenty-one 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 up to twenty years. Pricing for service contracts is based upon estimates of future costs, which could be materially different from actual expenses.

Advanced technologies contracts (Research and development contracts)

We have contracted with various government agencies and certain companies from private industry 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. At October 31, 2016, Advanced technologies contracts backlog totaled \$60.1 million, of which \$39.6 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.

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, 2016, based on criteria for effective internal control over financial reporting established in the *Internal Control—Integrated Framework 2013*, 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, 2016 based on the specified criteria.



Arthur A. Bottone
President and Chief Executive Officer



Michael S. Bishop
Senior Vice President, Chief Financial Officer, Corporate Secretary and Treasurer

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, 2016 and 2015, and the related consolidated statements of operations and comprehensive loss, changes in equity (deficit), and cash flows for each of the years in the three-year period ended October 31, 2016. We also have audited FuelCell Energy, Inc.'s internal control over financial reporting as of October 31, 2016, based on criteria established in *Internal Control—Integrated Framework (2013)* 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, 2016 and 2015, and the results of its operations and its cash flows for each of the years in the three-year period ended October 31, 2016, 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, 2016, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

KPMG LLP

Hartford, Connecticut

January 12, 2017

CONSOLIDATED BALANCE SHEETS

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

October 31,

2016 2015

ASSETS

Current assets:

Cash and cash equivalents	\$ 84,187	\$ 58,852
Restricted cash and cash equivalents—short-term	9,437	6,288
Accounts receivable, net of allowance for doubtful accounts of \$193 and \$544 at October 31, 2016 and 2015, respectively	24,593	60,790
Inventories	73,806	65,754
Project assets current	—	5,260
Other current assets	10,466	6,954
Total current assets	202,469	203,898
Restricted cash and cash equivalents—long-term	24,692	20,600
Project assets noncurrent	47,111	6,922
Property, plant and equipment, net	36,640	29,002
Goodwill	4,075	4,075
Intangible assets	9,592	9,592
Other assets, net	17,558	3,142
Total assets	\$ 342,137	\$ 277,231

LIABILITIES AND EQUITY

Current liabilities:

Current portion of long-term debt	\$ 5,275	\$ 7,358
Accounts payable	18,475	15,745
Accrued liabilities	20,900	19,175
Deferred revenue	6,811	31,787
Preferred stock obligation of subsidiary	802	823
Total current liabilities	52,263	74,888
Long-term deferred revenue	20,974	22,646
Long-term preferred stock obligation of subsidiary	12,649	12,088
Long-term debt and other liabilities	81,998	12,998
Total liabilities	167,884	122,620

Redeemable preferred stock (liquidation preference of \$64,020 at October 31, 2016 and October 31, 2015)	59,857	59,857
--	--------	--------

Total equity:

Shareholders' equity		
Common stock (\$.0001 par value; 75,000,000 and 39,583,333 shares authorized at October 31, 2016 and 2015, respectively; 35,174,424 and 25,964,710 shares issued and outstanding at October 31, 2016 and 2015, respectively)	4	3
Additional paid-in capital	1,004,566	934,488
Accumulated deficit	(889,630)	(838,673)
Accumulated other comprehensive loss	(544)	(509)
Treasury stock, Common, at cost (21,527 and 5,845 shares at October 31, 2016 and 2015, respectively)	(179)	(78)
Deferred compensation	179	78
Total shareholders' equity	114,396	95,309
Noncontrolling interest in subsidiaries	—	(555)
Total equity	114,396	94,754
Total liabilities and equity	\$ 342,137	\$ 277,231

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

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

For the Years Ended October 31,

	2016	2015	2014
Revenues:			
Product sales (including \$43.6 million, \$100.5 million and \$115.0 million of related party revenue)	\$ 62,563	\$ 128,595	\$ 136,842
Service agreements and license revenues (including \$8.5 million, \$11.4 million and \$14.9 million of related party revenue)	32,758	21,012	25,956
Advanced technologies contract revenues (including \$0 million, \$0.6 million and \$0.4 million of related party revenue)	12,931	13,470	17,495
Total revenues	108,252	163,077	180,293
Costs of revenues:			
Cost of product sales	63,474	118,530	126,866
Cost of service agreements and license revenues	33,256	18,301	23,037
Cost of advanced technologies contract revenues	11,879	13,470	16,664
Total cost of revenues	108,609	150,301	166,567
Gross (loss) profit	(357)	12,776	13,726
Operating expenses:			
Administrative and selling expenses	25,150	24,226	22,797
Research and development expenses	20,846	17,442	18,240
Total operating expenses	45,996	41,668	41,037
Loss from operations	(46,353)	(28,892)	(27,311)
Interest expense	(4,958)	(2,960)	(3,561)
Other income (expense), net	622	2,442	(7,523)
Loss before provision for income taxes	(50,689)	(29,410)	(38,395)
Provision for income taxes	(519)	(274)	(488)
Net loss	(51,208)	(29,684)	(38,883)
Net loss attributable to noncontrolling interest	251	325	758
Net loss attributable to FuelCell Energy, Inc.	(50,957)	(29,359)	(38,125)
Preferred stock dividends	(3,200)	(3,200)	(3,200)
Net loss to common shareholders	\$ (54,157)	\$ (32,559)	\$ (41,325)
Net loss to common shareholders per share			
Basic	\$ (1.82)	\$ (1.33)	\$ (2.02)
Diluted	\$ (1.82)	\$ (1.33)	\$ (2.02)
Weighted-average shares outstanding			
Basic	29,773,700	24,513,731	20,473,915
Diluted	29,773,700	24,513,731	20,473,915

For the Years Ended October 31,

	2016	2015	2014
Net loss	\$ (51,208)	\$ (29,684)	\$ (38,883)
Other comprehensive loss:			
Foreign currency translation adjustments	(35)	(350)	(260)
Comprehensive loss	\$ (51,243)	\$ (30,034)	\$ (39,143)

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (DEFICIT)

For the Years Ended October 31, 2016, 2015 and 2014

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

	Common Stock		Additional	Accumulated	Accumulated	Treasury	Deferred	Noncontrolling	Total Equity
	Shares	Amount	Paid-in Capital	Deficit	Other Comprehensive Income (Loss)	Stock	Compensation	Interest in Subsidiaries	(Deficit)
Balance, October 31, 2013	16,359,200	\$2	\$ 758,674	\$ (771,189)	\$ 101	\$ (53)	\$ 53	\$ (780)	\$ (13,192)
Sale of common stock	4,973,604	—	105,966	—	—	—	—	—	105,966
Common stock issued for convertible note conversions including interest	2,063,896	—	33,306	—	—	—	—	—	33,306
Common stock issued to settle make-whole obligation	459,523	—	12,883	—	—	—	—	—	12,883
Share-based compensation	—	—	2,908	—	—	—	—	—	2,908
Taxes paid upon vesting of restricted stock awards, net of stock issued under benefit plans	76,136	—	(1,079)	—	—	—	—	—	(1,079)
Noncontrolling interest in subsidiaries	—	—	—	—	—	—	—	(758)	(758)
Preferred dividends — Series B	—	—	(3,200)	—	—	—	—	—	(3,200)
Adjustment for deferred compensation	(2,359)	—	—	—	—	(42)	42	—	—
Effect of foreign currency translation	—	—	—	—	(260)	—	—	—	(260)
Net loss attributable to FuelCell Energy, Inc.	—	—	—	(38,125)	—	—	—	—	(38,125)
Balance, October 31, 2014	23,930,000	\$2	\$ 909,458	\$ (809,314)	\$ (159)	\$ (95)	\$ 95	\$ (1,538)	\$ 98,449
Sale of common stock	1,845,166	1	26,920	—	—	—	—	—	26,921
Share-based compensation	—	—	3,157	—	—	—	—	—	3,157
Taxes paid upon vesting of restricted stock awards, net of stock issued under benefit plans	191,593	—	(539)	—	—	—	—	—	(539)
Reclassification of noncontrolling interest due to liquidation of subsidiary	—	—	(1,308)	—	—	—	—	1,308	—
Noncontrolling interest in subsidiaries	—	—	—	—	—	—	—	(325)	(325)
Preferred dividends — Series B	—	—	(3,200)	—	—	—	—	—	(3,200)
Adjustment for deferred compensation	(2,049)	—	—	—	—	17	(17)	—	—
Effect of foreign currency translation	—	—	—	—	(350)	—	—	—	(350)
Net loss attributable to FuelCell Energy, Inc.	—	—	—	(29,359)	—	—	—	—	(29,359)
Balance, October 31, 2015	25,964,710	\$3	\$ 934,488	\$ (838,673)	\$ (509)	\$ (78)	\$ 78	\$ (555)	\$ 94,754
Sale of common stock, prepaid warrants and warrants, public offering	1,474,000	—	34,736	—	—	—	—	—	34,736
Exercise of prepaid warrants	1,100,000	—	—	—	—	—	—	—	—
Sale of common stock	6,023,372	1	36,055	—	—	—	—	—	36,056
Common stock issued, non-employee compensation	24,379	—	157	—	—	—	—	—	157
Share-based compensation	—	—	3,425	—	—	—	—	—	3,425
Taxes paid upon vesting of restricted stock awards, net of stock issued under benefit plans	587,963	—	(286)	—	—	—	—	—	(286)
Preferred dividends — Series B	—	—	(3,200)	—	—	—	—	—	(3,200)
Noncontrolling interest in subsidiary	—	—	—	—	—	—	—	(251)	(251)
Purchase of noncontrolling shares of subsidiary	—	—	(809)	—	—	—	—	806	(3)
Effect of foreign currency translation	—	—	—	—	(35)	—	—	—	(35)
Adjustment for deferred compensation	—	—	—	—	—	(101)	101	—	—
Net loss attributable to FuelCell Energy, Inc.	—	—	—	(50,957)	—	—	—	—	(50,957)
Balance, October 31, 2016	35,174,424	\$4	\$ 1,004,566	\$ (889,630)	\$ (544)	\$ (179)	\$ 179	\$ —	\$ 114,396

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

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

For the Years Ended October 31,

	2016	2015	2014
Cash flows from operating activities:			
Net loss	\$ (51,208)	\$(29,684)	\$ (38,883)
Adjustments to reconcile net loss to net cash used in operating activities:			
Share-based compensation	3,425	3,157	2,908
Gain from change in fair value of embedded derivatives	(14)	(23)	(126)
Make whole derivative expense	—	—	8,347
Depreciation	4,949	4,099	4,384
Amortization of convertible note discount and non-cash interest expense	3,207	1,830	2,140
Foreign currency transaction gains	(324)	(2,075)	(571)
Other non-cash transactions	451	412	146
Decrease (increase) in operating assets:			
Accounts receivable	30,235	3,173	(15,378)
Inventories	(8,052)	(10,100)	1,059
Project assets	—	(11,398)	—
Other assets	(837)	1,022	3,417
(Decrease) increase in operating liabilities:			
Accounts payable	(3,019)	(7,224)	(1,566)
Accrued liabilities	1,240	6,435	(11,056)
Deferred revenue	(26,648)	(3,898)	(12,289)
Net cash used in operating activities	(46,595)	(44,274)	(57,468)
Cash flows from investing activities:			
Capital expenditures	(7,726)	(6,930)	(6,295)
Expenditures for long-term project assets	(33,726)	—	(784)
Net cash used in investing activities	(41,452)	(6,930)	(7,079)
Cash flows from financing activities:			
Repayment of debt	(30,452)	(1,535)	(5,971)
Proceeds from debt	85,935	6,763	250
Payments of deferred finance costs	(1,758)	—	—
Purchase of non-controlling shares of subsidiary	(3)	—	—
Proceeds from sale of common stock, net of registration fees	70,929	27,060	105,844
Payment of preferred dividends and return of capital	(4,170)	(4,202)	(4,343)
Common stock issued for stock plans and related expenses	177	133	161
Net cash provided by financing activities	120,658	28,219	95,941
Effects on cash from changes in foreign currency rates	(35)	(108)	(260)
Net increase in cash, cash equivalents, and restricted cash	32,576	(23,093)	31,134
Cash, cash equivalents, and restricted cash—beginning of year	85,740	108,833	77,699
Cash, cash equivalents, and restricted cash—end of year	\$ 118,316	\$ 85,740	\$ 108,833

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended October 31, 2016, 2015 and 2014 (Tabular amounts in thousands, except share and per share amounts)

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

Nature of Business and Basis of Presentation

FuelCell Energy, Inc. and its subsidiaries (the "Company," "FuelCell Energy," "we," "us," or "our") is 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 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 cells and other fuel cell technologies. Our operations are funded primarily through sales of equity instruments to strategic investors or in public markets, debt financing and local or state government loans or grants. In order to produce positive cash flow from operations, we need to be successful at increasing annual order volume and production and in our cost reduction efforts.

The consolidated financial statements include our accounts and those of our wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated. In October 2016, the Company purchased the noncontrolling interest in FuelCell Energy Services, GmbH.

On December 3, 2015, we effected a 1-for-12 reverse stock split, reducing the number of our common shares outstanding on that date from 314.5 million shares to approximately 26.2 million shares. Concurrently with the reverse stock split the number of authorized shares of our common stock was reduced proportionately from 475 million shares to 39.6 million shares. Additionally, the conversion price of our Series B Preferred Stock, and the exchange price of our Series 1 Preferred Shares, the exercise price of all outstanding options and warrants, and the number of shares reserved for future issuance pursuant to our equity compensation plans were all adjusted proportionately to the reverse stock split. All such amounts presented herein have been adjusted retroactively to reflect these changes.

Certain reclassifications have been made to conform to the current year presentation. Expenditures for long-term project assets for the year ended October 31, 2014 has been reclassified on the Consolidated Statement of Cash Flows from capital expenditures and foreign currency transaction gains for the year ended October 31, 2014 has been reclassified on the Consolidated Statement of Cash Flows from Other non-cash transactions to Foreign currency transaction gains. The Company also has early adopted Accounting Standards Update ("ASU") 2016-18, "Statement of Cash Flows (Topic 230) Restricted Cash," and has applied a retrospective transition method for each period presented. Accordingly, Restricted Cash and Cash Equivalents has been reclassified as a component of Cash, Cash Equivalents, and Restricted Cash in the Consolidated Statement of Cash Flows for all periods presented.

Significant Accounting Policies

Cash and Cash Equivalents and Restricted Cash

All cash equivalents consist of investments in money market funds with original maturities of three months or less at date of acquisition. We place our temporary cash investments with high credit quality financial institutions. At October 31, 2016, \$34.1 million of cash and cash equivalents was pledged as collateral for letters of credit and for certain banking requirements and contractual commitments, compared to \$26.9 million pledged at October 31, 2015. The restricted cash balance includes \$15.0 million as of October 31, 2016 and 2015, which has been placed in a Grantor's Trust account to secure certain FCE obligations under a 15-year service agreement for the Bridgeport Fuel Cell Park project and has been classified as Restricted cash and cash equivalents—long-term. At October 31, 2016 and 2015, we had outstanding letters of credit of \$7.9 million and \$8.7 million, respectively, which expire on various dates through April 2019. Cash and cash equivalents at October 31, 2016 and 2015 also included \$5.3 million and \$9.6 million, respectively, of cash advanced by POSCO Energy for raw material purchases made on its behalf by FuelCell Energy. Under an inventory procurement agreement that ensures coordinated purchasing from the global supply chain, FuelCell Energy provides procurement services for POSCO Energy and receives compensation for services rendered. While POSCO Energy makes payments to us in advance of supplier requirements, quarterly receipts may not match disbursements.

Inventories and Advance Payments to Vendors

Inventories consist principally of raw materials and work-in-process. Cost is determined using the first-in, first-out cost method. 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 allowances 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.

Project Assets

Project assets consist of capitalized costs for fuel cell projects in various stages of development, whereby we have entered into power purchase agreements prior to entering into a definitive sales or long-term financing agreement for the project, or of capitalized costs for fuel cell projects which are the subject of a sale-leaseback transaction with PNC or projects in development for which we expect to secure long-term contracts. These projects are actively being marketed and intended to be sold, although we may choose to retain ownership of one or more of these projects after they become operational if we determine it would be of economic and strategic benefit. Additionally, Project assets include capitalized costs for fuel cell projects which are the subject of a sale-leaseback transaction (see "Sale-Leaseback Accounting")

below). Project asset costs include costs for developing and constructing a complete turn-key fuel cell project. Development costs can include legal, consulting, permitting, interconnect, and other similar costs. Once we enter into a definitive sales agreement we expense project assets to cost of sales after the respective project asset is sold to a customer and all revenue recognition criteria have been met. We classify project assets as current if the expected commercial operation date is less than twelve months and long-term if it is greater than twelve months from the balance sheet date. The current portion of project assets is currently held for sale, however, should the Company elect to retain a project asset, or elect to enter into a sale-leaseback transaction with respect to it, it will be classified as long-term upon such election. There were no short-term project assets as of October 31, 2016. We review project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

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.

The Company completed its annual impairment analysis of goodwill and intangible assets with indefinite lives at July 31, 2016. The goodwill and intangible assets all relate to the Company's Versa reporting unit. 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 any of the years presented.

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. No impairment charges were recorded during any of the years presented.

Revenue Recognition

We earn revenue from (i) the sale and installation of fuel cell power plants, (ii) the sale of fuel cell modules, component part kits and spare parts, to customers, (iii) site engineering and construction services, (iv) performance under long-term service agreements, (v) the sale of electricity under power purchase agreements ("PPA"), (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., Asia and Europe and from agencies of the U.S. Government. Revenue from power plant construction, module and module kit sales, construction services and component part revenue is recorded as product sales in the consolidated statements of operations. Construction services includes engineering, procurement and construction (EPC) services of the overall fuel cell project. The installation of a power plant at a customer site includes significant site preparation which is included in the EPC component and is required to be completed before integration of the fuel cell power plant. Revenue from service agreements, PPAs and license and royalty 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, 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. When changes in estimated contract costs are identified, such revisions may result in current period adjustments to revenue. Revenues are recognized based on the proportion of costs incurred to date relative to total estimated costs at completion as compared to the contract value. 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. Actual results could vary from initial estimates and the estimates will be updated as conditions change.

Revenue from the sale of fuel cell modules, component part kits and spare parts 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 not ready 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 agreements is generally recorded ratably over the term of the service agreement, as our performance of routine monitoring and maintenance under these service agreements are generally expected to be incurred on a straight-line basis. For service agreements where we expect to have a module exchange at some point during the term (generally service agreements 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 contract value related to the module exchange is deferred and is recognized upon such module replacement event.

Revenue from funded advanced technology contracts is recognized as direct costs are incurred plus allowable overhead less cost share requirements, if any. 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.

Sale-Leaseback Accounting

From time to time, the Company, through an indirect wholly-owned subsidiary, enters into sale-leaseback transactions for commissioned projects where we have entered into a PPA with a customer who is both the site host and end user of the power (the "Customer"). Due to the Company's continuing involvement with the project and because the leased property being considered integral equipment, sale accounting is precluded by Accounting Standard Codification Topic 840-40, "Sale-Leaseback Transactions." Accordingly, the Company uses the financing method to account for these transactions.

Under the financing method of accounting for a sale-leaseback, the Company does not recognize as income any of the sale proceeds received from the lessor that contractually constitutes payment to acquire the assets subject to these arrangements. Instead, the sale proceeds received are accounted for as financing obligations and leaseback payments made by the

Company are allocated between interest expense and a reduction to the financing obligation. Interest on the financing obligation is calculated using the Company's incremental borrowing rate at the inception of the arrangement on the outstanding financing obligation. Judgment is required to determine the appropriate borrowing rate for the arrangement and in determining any gain or loss on the transaction that would be recorded at the end of the lease term. While we receive financing for the full value of the related power plant asset, we have not recognized revenue on the sale-leaseback transaction. Instead, revenue is recognized through the sale of electricity and energy credits which are generated as energy is produced.

Warranty and Service Expense Recognition

We warranty our products for a specific period of time against manufacturing or performance defects. Our U.S. 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 accrue for estimated future warranty costs based on historical experience. We also provide for a specific accrual if there is a known issue requiring repair during the warranty period. Estimates used to record warranty accruals are updated as we gain further operating experience. At October 31, 2016 and 2015, the warranty accrual, which is classified in accrued liabilities on the consolidated balance sheet, totaled \$0.5 million and \$1.0 million, respectively.

In addition to the standard product warranty, we have entered into service agreements with certain customers to provide monitoring, maintenance and repair services for fuel cell power plants. Under the terms of these service agreements, 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 module. The Company has accrued for performance guarantees of \$3.3 million and \$2.6 million at October 31, 2016 and 2015, respectively.

The Company provides for loss accruals for all service agreements when the estimated cost of future module exchanges and maintenance and monitoring activities exceeds the remaining contract value. Estimates for future costs on service agreements are determined by a number of factors including the estimated remaining life of the module, used replacement modules available, our limit of liability on service agreements and future operating plans for the power plant. Our 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. At October 31, 2016, our loss accruals on service agreements totaled \$2.7 million compared to \$0.8 million at October 31, 2015.

At the end of our service agreements, customers are expected to either renew the service agreement or, based on the Company's rights to title of the module, the module will be returned to the Company as the plant is no longer being monitored or having routine service performed. At October 31, 2016, the Company did not have an asset related to the residual value of replacement modules in power plants under service agreements compared to \$2.5 million at October 31, 2015.

License Agreements and Royalty Income

We generally recognize license fees and other revenue over the term of the associated agreement. License fees and royalty income have been included within revenues on the consolidated statement of operations.

The Company receives license fees and royalty income from POSCO Energy as a result of certain manufacturing and technology transfer agreements. In October 2016, these agreements were extended until October 31, 2027, after which they may be extended in five-year increments by mutual agreement of the parties.

The Cell Technology Transfer Agreement (“CTTA”) provides POSCO Energy with the technology to manufacture Direct FuelCell power plants in South Korea and the exclusive market access to sell power plants throughout Asia. The CTTA contains multiple elements, including the license of technology and market access rights, fuel cell module kit product deliverables, as well as professional service deliverables. We identified these three items as deliverables under the multiple-element arrangement guidance and evaluated the estimated selling prices to allocate the relative fair value 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 cost of 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 recognizing the consideration allocated to the license of technology and market access rights as revenue over the fifteen-year license term on a straight-line basis, and have recognized the amounts allocated to the module kit deliverables and professional service deliverables when such items were 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. In connection with the CTTA, fees totaling \$18.0 million were paid between fiscal year 2012 and 2015.

The Company also receives royalties from POSCO Energy under the 2007 Technology Transfer, Distribution and Licensing Agreement (“TTA”) and the 2009 Stack Technology Transfer and License Agreement (“STTA”) at the rate of 3.0% of POSCO Energy net sales. Additionally, under the STTA certain license fee income aggregating \$7.0 million is being recognized ratably over fifteen years beginning November 1, 2012. Under the terms of the TTA, POSCO Energy manufactures balance of plant (“BOP”) in South Korea using its design, procurement and manufacturing expertise. The 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.

The Company has a Master Service Agreement with POSCO Energy, whereby POSCO Energy has more responsibility for servicing installations in Asia that utilize power plants manufactured by POSCO Energy. The Company performs engineering and support services for each unit in the installed fleet and receives quarterly fees as well as a 3.0% royalty on each fuel cell module replacement under service agreements

that were built by POSCO Energy and installed at any plant in Asia.

In April 2014, the Company entered into an Integrated Global Supply Chain Plan Agreement (“IGSCP”) with POSCO Energy. FuelCell Energy provides procurement services for POSCO Energy and receives compensation as recognized revenue for services rendered.

The Company recorded revenue of \$6.2 million, \$3.9 million and \$4.3 million for the years ended October 31, 2016, 2015 and 2014, respectively, relating to the above agreements. Future license and royalty income will consist of amortization of the license payments discussed above as well as a 3.0% royalty on POSCO Energy net product sales related to FCE’s technology and each scheduled fuel cell module replacement under terms of our Master Service Agreement.

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.

Concentrations

We contract with a concentrated number of customers for the sale of our products, for service agreement contracts and for advanced technologies contracts. For the years ended October 31, 2016, 2015 and 2014, our top customers accounted for 78%, 89% and 85%, respectively, of our total annual consolidated revenue.

The percent of consolidated revenues from each customer for the years ended October 31, 2016, 2015 and 2014, respectively, are presented below.

	2016	2015	2014
POSCO Energy	48%	67%	69%
The United Illuminating Company	10%	14%	9%
Department of Energy	8%	5%	4%
Dominion Bridgeport Fuel Cell, LLC	6%	3%	3%
BioFuels Energy, LLC	6%	—%	—%
Total	78%	89%	85%

POSCO Energy is a related party and owns approximately 7% of the outstanding common shares of the Company. Additionally, NRG Energy is a related party, which owns approximately 4% of the outstanding common shares of the Company. Revenues from NRG aggregated less than 3% of consolidated revenues during each of the years presented.

Derivatives

We do not use derivatives for speculative purposes and through fiscal year end 2016, have not used derivatives for hedging or trading purposes. Our derivative instruments consist of embedded derivatives in our Series 1 Preferred Shares. We account for these derivatives using the fair-value method with changes in fair value recorded to operations. Refer to Note 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, service agreement loss accruals, allowance for uncollectable receivables, depreciation and amortization, impairment of goodwill, intangible and long-lived assets, income taxes, and contingencies. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary.

Foreign Currency Translation

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

Our Canadian subsidiary, FCE Ltd., is financially and operationally integrated and the functional currency is U.S. dollars. We are subject to foreign currency transaction gains and losses as certain transactions are denominated in foreign currencies. We recognized gains of \$0.3 million, \$1.7 million and \$0.6 million for the years ended October 31, 2016, 2015 and 2014, respectively. These amounts have been classified as other income (expense), net in the consolidated statements of operations.

Recently Adopted Accounting Guidance

In October 2016, the FASB issued Accounting Standards Update (ASU) 2016-18, "Statement of Cash Flows (Topic 230) Restricted Cash." The amendments require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The Company

has early-adopted ASU 2016-18 using a retrospective transition method for each period presented in this ASU. Accordingly, Restricted Cash and Cash Equivalents has been reclassified as a component of Cash, Cash Equivalents, and Restricted Cash in the Consolidated Statement of Cash Flows for all periods presented.

Recent Accounting Guidance Not Yet Effective

In February 2016, the FASB issued ASU 2016-02, "Leases," which, for operating leases, requires a lessee to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The standard also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, on a generally straight-line basis. The ASU is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years (first quarter of fiscal 2020 for the Company). Early adoption is permitted. The Company has both operating and capital leases (Refer to Note 17. Commitments and Contingences) as well as sale leasebacks accounted for under the finance method and may have other arrangements that contain embedded leases as characterized in this ASU. We expect this will result in the recognition of right-of-use assets and lease liabilities not currently recorded on our consolidated financial statements under existing accounting guidance, but we are still evaluating all of the Company's contractual arrangements and the impact that adoption of ASU 2016-02 will have on the Company's consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, "Interest – Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs." This ASU simplifies the presentation of debt issuance costs by requiring that such costs be presented in the balance sheet as a direct deduction from the carrying value of the associated debt instrument, consistent with debt discounts. The amendments in this ASU are effective for fiscal years beginning after December 15, 2015 and for interim periods therein. Adoption of this ASU is not expected to have a material impact on the Company's consolidated financial position.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)." This topic provides for five principles which should be followed to determine the appropriate amount and timing of revenue recognition for the transfer of goods and services to customers. The principles in this ASU should be applied to all contracts with customers regardless of industry. The amendments in this ASU are effective for fiscal years, and interim periods within those years beginning after December 15, 2016, with two transition methods of adoption allowed. Early adoption for reporting periods prior to December 15, 2016 is not permitted. In March 2015, the FASB voted to defer the effective date by one year to fiscal year, and interim periods within those fiscal years beginning after December 15, 2017 (first quarter of fiscal 2019 for the Company), but allow adoption as of the original adoption date. The Company has numerous different revenue sources including from the sale and installation of fuel cell power plants, site engineering and construction services, sale of modules and spare parts, providing service under service agreements, sale of electricity under power purchase agreements, license fees and royalty income from manufacturing and technology transfer agreements and customer-sponsored advanced technology projects. This requires application of various revenue recognition methods under current accounting guidance. Although we

anticipate that upon adoption of this new ASU the timing of revenue recognition for certain of our revenue sources might change, we are still evaluating the financial statement impacts of the guidance in this ASU and determining which transition method we will utilize. In May 2016, the FASB issued ASU 2016-12, "Revenue from Contracts with Customers (Topic 606)." This topic provides narrow-scope improvements and practical expedient regarding collectability, presentation of sales tax collected from customers, non-cash consideration, contract modifications at transition, completed contracts at transition and other technical corrections

Note 2. Accounts Receivable

Accounts receivable at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Advanced Technology (including U.S. Government ⁽¹⁾):		
Amount billed	\$ 2,463	\$ 433
Unbilled recoverable costs	3,068	3,077
	5,531	3,510
Commercial customers:		
Amount billed	5,411	19,331
Unbilled recoverable costs	13,651	37,949
	19,062	57,280
Accounts receivable	\$24,593	\$60,790

(1) Total U.S. Government accounts receivable outstanding at October 31, 2016 and 2015 is \$2.2 million and \$2.6 million, respectively.

We bill customers for power plant and module kit sales based on certain contractual milestones being reached. We bill service agreements based on the contract price and billing terms of the contracts. Generally, our advanced technology contracts are billed based on actual recoverable costs incurred, typically in the month subsequent to incurring costs. Some advanced technology contracts are billed based on contractual milestones or costs incurred. Unbilled recoverable costs relate to revenue recognized on customer contracts that has not been billed. Accounts receivable are presented net of an allowance for doubtful accounts of \$0.2 million and \$0.5 million at October 31, 2016 and 2015, respectively. Uncollectible accounts receivable are charged against the allowance for doubtful accounts when all collection efforts have failed and it is deemed unlikely that the amount will be recovered.

Accounts receivable from commercial customers (including unbilled recoverable costs) include amounts due from POSCO Energy of \$5.0 million and \$34.4 million, and amounts due from NRG of \$0.1 million and \$0.02 million at October 31, 2016 and 2015, respectively.

Note 3. Inventories

Inventories at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Raw materials	\$25,286	\$29,103
Work-in-process ⁽¹⁾	48,520	36,651
Inventories	\$73,806	\$65,754

(1) Work-in-process includes the standard components of inventory used to build the typical modules or module components that are intended to be used in future power plant orders or to service our service agreements. Included in Work-in-process at October 31, 2016 and 2015 is \$40.6 million and \$13.3 million, respectively, of completed standard components.

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 and modules, which are subcomponents of a power plant.

Raw materials and work in process are net of a valuation allowance of approximately \$0.8 million and \$0.2 million at October 31, 2016 and 2015, respectively.

Note 4. Project Assets

Project assets at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Current project assets	\$ —	\$ 5,260
Long-term project assets	47,111	6,922
Project assets	\$ 47,111	\$12,182

Project assets at October 31, 2016 include \$29.3 million which represents three completed, commissioned installations where we have a PPA with the end-user of power and site host. These assets are the subject of sales-leaseback arrangements with PNC, which are recorded under the financing method of accounting for a sale-leaseback. Under the finance method, the Company does not recognize the proceeds received from the lessor as a sale of such assets. This balance also includes assets aggregating \$17.8 million which are being constructed by the Company under PPAs which have been executed or are expected to be executed in 2017.

The long-term portion of project assets has been partially offset by project-related grant awards. Project construction costs incurred after classification as long-term project assets are reported as investing activities in the Consolidated Statement of Cash Flows. The proceeds received for the sale and subsequent leaseback of project assets are classified as cash flows from financing activities within the Consolidated Statement of Cash Flows and are classified as a financing obligation within Long-term debt and other liabilities on the Consolidated Balance Sheets (refer to Note 10 for more information).

Note 5. Property, Plant and Equipment

Property, plant and equipment at October 31, 2016 and 2015 consisted of the following:

	2016	2015	Estimated Useful Life
Land	\$ 524	\$ 524	—
Building and improvements	9,218	9,263	10-26 years
Machinery, equipment and software	87,350	83,578	3-8 years
Furniture and fixtures	3,509	3,137	10 years
Construction in progress	16,388	9,948	—
	116,989	106,450	
Accumulated depreciation	(80,349)	(77,448)	
Property, plant and equipment, net	\$ 36,640	\$ 29,002	

In December 2015, the Company commenced the first phase of its project to expand the existing 65,000 square foot manufacturing facility in Torrington, Connecticut by approximately 102,000 square feet for a total size of 167,000 square feet.

Depreciation expense was \$4.9 million, \$4.1 million and \$4.4 million for the years ended October 31, 2016, 2015 and 2014, respectively.

Note 6. Goodwill and Intangible Assets

At October 31, 2016, the Company had goodwill of \$4.1 million and intangible assets of \$9.6 million associated with the 2012 Versa acquisition. The intangible asset represents indefinite lived in-process research and development.

The Company completed its annual impairment analysis of goodwill and in-process research and development asset at July 31, 2016. To determine the fair value of the reporting unit that holds goodwill and to determine the fair value of the in-process research and development asset, the Company used a discounted cash flow model and a multi-period excess earnings model, respectively. The estimated fair value of the reporting unit and in-process research and development intangible asset substantially exceeds the respective carrying values and therefore no impairments have been recognized at October 31, 2016.

Note 7. Other Current Assets

Other current assets at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Advance payments to vendors ⁽¹⁾	\$ 1,247	\$ 2,281
Deferred finance costs ⁽²⁾	417	198
Notes receivable	1,007	585
Prepaid expenses and other ⁽³⁾	7,775	3,890
Other current assets	\$ 10,446	\$ 6,954

(1) Advance payments to vendors relate to inventory purchases ahead of receipt.

(2) Primarily represents the current portion of direct deferred finance costs relating to securing a \$40.0 million loan facility with NRG which is being amortized over the five-year life of the facility, and direct deferred finance costs relating to the Hercules loan and security agreement entered into in April 2016 which is being amortized over the 2.5 years life of the loan.

(3) Primarily relates to other prepaid vendor expenses including insurance, rent and lease payments.

Note 8. Other Assets, net

Other assets, net at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Long-term accounts receivable ⁽¹⁾	\$ 8,353	\$ —
Long-term unbilled recoverable costs ⁽²⁾	5,714	—
Deferred finance costs ⁽³⁾	1,368	354
Long-term stack residual value ⁽⁴⁾	—	2,509
Other ⁽⁵⁾	2,123	279
Other assets, net	\$ 17,558	\$ 3,142

(1) Represents receivables related to project and stack replacement reserve accounts pertaining to a sale-leaseback transaction and upon receipt, the funds will be recorded as long-term restricted cash.

(2) Represents unbilled recoverable costs that relate to revenue recognized on customer contracts that will be billed in future periods in excess of twelve months from October 31, 2016.

(3) Represents the long-term portion of direct deferred finance costs, including those relating to: a) the Company's loan facility with NRG which is being amortized over the five-year life of the facility; b) sale-leaseback transactions entered into with PNC Energy Capital, LLC which are being amortized over the ten-year term and c) the Hercules loan and security agreement which is being amortized over the 30 month life of the loan.

(4) Relates to estimated residual value for module exchanges performed under the Company's service agreements where the useful life extends beyond the contractual term of the service agreement and the Company obtains title for the module from the customer upon expiration or non-renewal of the service agreement. If the Company does not obtain rights to title from the customer, the full cost of the module is expensed at the time of the module exchange. The decrease from October 31, 2015 represents the residual value being recognized as cost of service agreements due to contract term extensions.

(5) The Company entered into an agreement with one of its customers on June 29, 2016 which includes a fee for the purchase of the plants at the end of the term agreement. The fee is payable in installments over the term agreement and the total paid at October 31, 2016 is \$0.9 million. The increase at October 31, 2016 also includes deposits for projects in development.

Note 9. Accrued Liabilities

Accrued liabilities at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Accrued payroll and employee benefits	\$ 4,183	\$ 3,914
Accrued product warranty costs ⁽¹⁾	516	964
Accrued material purchases ⁽²⁾	6,908	7,568
Accrued service agreement costs ⁽³⁾	6,030	3,437
Accrued taxes, legal, professional and other	3,263	3,292
Accrued liabilities	\$ 20,900	\$ 19,175

(1) Activity in the accrued product warranty costs during the fiscal year ended October 31, 2016 and 2015 included additions for estimates of potential future warranty obligations of \$0.3 million and \$0.6 million, respectively, on contracts in the warranty period and reductions related to actual warranty spend of \$0.7 million and \$0.8 million, respectively, as contracts progress through the warranty period or are beyond the warranty period.

(2) The Company acts as a procurement agent for POSCO under the Integrated Global Supply Chain Plan ("IGSCP") whereby the Company procures materials on POSCO's behalf for its production facility. The liability represents amounts received for the purchase of materials on behalf of POSCO. Amounts due to vendors is recorded as Accounts Payable.

(3) Activity in service agreement costs represents an increase in loss accruals on service contracts of \$1.9 million from \$0.8 million as of October 31, 2015 to \$2.7 million as of October 31, 2016. The increase primarily relates to renewals of legacy service contracts. The accruals for performance guarantees also increased from \$2.6 million as of October 31, 2015 to \$3.3 million as of October 31, 2016 based on the minimum output falling below the contract requirements for certain contracts offset by guarantee payments to customers.

Note 10. Debt

Debt at October 31, 2016 and 2015 consisted of the following:

	2016	2015
Hercules Loan and Security Agreement	\$20,521	\$ —
State of Connecticut Loan	10,000	—
PNC obligation of Company's finance subsidiary	41,603	—
NRG loan agreement	1,755	3,763
Connecticut Clean Energy and Finance Investment Authority Note	6,050	6,052
Connecticut Development Authority Note	2,589	2,817
Revolving credit facility	—	2,945
Capitalized lease obligations	660	726
Total debt	\$83,178	\$16,303
Current portion of long-term debt	(5,275)	(7,358)
Long-term debt	\$77,903	\$ 8,945

Aggregate annual principal payments under our loan agreements and capital lease obligations for the years subsequent to October 31, 2016 are as follows:

Year 1	\$ 5,275
Year 2	26,530
Year 3	3,426
Year 4	3,954
Year 5	3,743
Thereafter	40,250
	<u>\$83,178</u>

In April 2016, the Company entered into a loan and security agreement (the "Agreement") with Hercules Capital, Inc. ("Hercules") for an aggregate principal amount of up to \$25.0 million, subject to certain terms and conditions. The Company received an initial term loan advance on the date of closing of \$15.0 million. The Company took an additional loan advance of \$5.0 million in September 2016 due to certain milestones being met ("Tranche II"). We may also have available a loan advance of \$5.0 million beginning on the later of January 1, 2017 or the date certain milestones are met and June 15, 2017 ("Tranche III"). The loan is a 30-month secured facility and the term loan interest is currently 9.5%. Interest is paid on a monthly basis. As of October 31, 2016, interest only payments are required through November 1, 2017. If certain additional performance milestones are achieved, the interest only period would be extended to May 1, 2018. Upon completion of interest only payments, the loan balance and all accrued and unpaid interest is due and payable in equal monthly installments by October 1, 2018. Per the terms of the Agreement, there is an end of term charge of \$1.7 million, which is being accreted over the thirty-month term using the effective interest rate method, which would increase to \$2.1 million if the Company receives an additional \$5.0 million advanced as discussed above.

As collateral for obligations under the Agreement, the Company granted Hercules a security interest in its existing and hereafter-acquired assets except for intellectual property and certain

other excluded assets. Collateral does not include assets held by the Company's finance subsidiary or any project subsidiary thereof. The Company may continue to collateralize and finance its project subsidiaries through other lenders and partners. The loan contains a financial covenant whereby the Company is required to maintain an unrestricted cash balance of at least (a) 75% of the outstanding Loan balance plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the date payment was issued.

In November 2015, the Company closed on a definitive Assistance Agreement with the State of Connecticut and received a disbursement of \$10.0 million to be used for the first phase of the expansion project to expand the existing 65,000 square foot manufacturing facility in Torrington, Connecticut by approximately 102,000 square feet for a total size of 167,000 square feet. In conjunction with this financing, the Company entered into a \$10.0 million Promissory Note and related security agreement, securing the loan with equipment liens and a mortgage on its Danbury, Connecticut location. Pursuant to the terms of the Note, payment of principal is deferred for the first four years. Interest at a fixed rate of 2.0% became payable beginning December 2015. The principal is payable over 15 years, and is predicated on certain terms and conditions, including the forgiveness of up to half of the loan principal if certain job retention and job creation targets are reached.

In 2015, the Company entered into an agreement with PNC, whereby the Company's project finance subsidiaries may enter into sale-leaseback agreements for commissioned projects where we have entered into a PPA with the end-user of power and site host. Under the financing method of accounting for a sale-leaseback, the Company does not recognize as income any of the sale proceeds received from the lessor that contractually constitutes payment to acquire the assets subject to these arrangements. Instead, the sale proceeds received are accounted for as financing obligations. During 2016, three sales-leaseback transactions were completed under the PNC agreement, generating financing aggregating \$41.6 million as of October 31, 2016.

In July 2014, the Company, through its wholly-owned subsidiary, entered into a Loan Agreement with NRG (the "Loan Agreement"). Pursuant to the Loan Agreement, NRG extended a \$40.0 million revolving construction and term financing facility for the purpose of accelerating project development by the Company and its subsidiaries. We may draw on the facility to finance the construction of projects through the commercial operating date of the power plants. The interest rate is 8.5% per annum for construction-period financing and 8.0% thereafter. Fees that were paid to NRG for making the loan facility available and related legal fees incurred were capitalized and are being amortized straight-line over the life of the related loan agreement, which is five years. Borrowings under the Loan Agreement are secured by the related project assets. The loans may be repaid early should the projects be sold or refinanced at the option of the Company.

The Company has a long-term loan agreement with the Connecticut Clean Energy and Finance Investment Authority (CEFIA, now known as the CT Green Bank) totaling \$5.9 million in support of the 2013 Bridgeport Fuel Cell Park project. The loan agreement carries an interest rate of 5.0%. Interest only payments commenced in January 2014 and principal payments will commence on the eighth anniversary of the project's provisional acceptance date, which is December 20, 2021, payable in forty-eight equal monthly installments. Outstanding

amounts are secured by cash flows from the Bridgeport Fuel Cell Park service agreement.

We have a loan agreement with the Connecticut Development Authority to finance equipment purchases associated with manufacturing capacity expansion allowing for a maximum amount borrowed of \$4.0 million. The interest rate is 5.0% 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.

During 2015, the Company had a revolving credit facility with JPMorgan Chase Bank, N.A. (the "Bank") for financing export receivables and was supported by the U.S. Import Export Bank. The credit facility expired on November 28, 2015 and the outstanding balance was paid back on November 24, 2015.

We lease computer equipment under master lease agreements. Lease payment terms are generally 36 months from the date of acceptance for leased equipment.

Note 11. Shareholders' Equity

Authorized Common Stock

In April 2016, the number of authorized shares of the Company's common stock was increased from 39,583,333 to 75,000,000, by vote of a majority of the Company's security holders.

July 2016 Securities Offering

On July 12, 2016 Company closed on a registered public offering of securities to a single institutional investor pursuant to a placement agent agreement with J.P. Morgan Securities LLC. The Company received net proceeds from the transaction of \$34.7 million, after deducting underwriter discounts and offering expenses of \$2.6 million. The transaction consisted of 1,474,000 shares of common stock, 7,680,000 Series A Warrants and 4,926,000 pre-funded Series B Warrants (the "Series B Warrants"). The Series A warrants have an exercise price of \$5.83 per share. They are initially exercisable beginning on the date that is six months and one day after the issue date and will expire on the fifth anniversary of the initial exercisability date. The Series B Warrants are fully pre-funded warrants and are immediately exercisable. They have an exercise price of \$0.0001 per share and will expire on the fifth anniversary of the issue date. The Series B Warrants were offered to the investor, whose purchase of shares of common stock in this offering would otherwise result in the investor, together with its affiliates and certain related parties, beneficially owning more than 4.99% of FuelCell Energy's outstanding common stock following the consummation of this offering. In lieu of purchasing shares of common stock that would result in its ownership of the Company in excess of 4.99%, the investor purchased the Series B Warrants. Such Series B Warrants grant the investor the right to acquire additional shares of FuelCell Energy common stock at a point in time of its choosing within five years of the issue date of the Series B Warrants. The following table outlines the warrant activity during the year ended October 31, 2016:

	Series A Warrants	Series B Warrants
Balance at July 12, 2016 (date of issuance)	7,680,000	4,926,000
Warrants exercised	—	(1,100,000)
Warrants expired	—	—
Balance at October 31, 2016	7,680,000	3,826,000

The warrants and pre-funded warrants continue to qualify for permanent equity accounting treatment. Subsequent to the year ended October 31, 2016, 1.8 million additional Series B Warrants were exercised.

Other Common Stock Sales and Outstanding Warrants

The Company may sell common stock on the open market from time to time. The proceeds of these sales may be used for general corporate purposes or to pay obligations related to the Company's outstanding Series 1 and Series B preferred shares. During the years ended October 31, 2016 and 2015, respectively, the Company sold 6.0 million shares and 1.9 million shares of the Company's common stock at prevailing market prices through periodic trades on the open market and raised approximately \$36.1 million and \$26.9 million, net of fees.

On July 30, 2014, the Company issued a warrant to NRG in conjunction with the entry into a Securities Purchase Agreement for the sale of common stock. Pursuant to the warrant agreement, NRG has the right to purchase up to 0.2 million shares of the Company's common stock at an exercise price of \$40.20 per share. The warrants continue to qualify for permanent equity accounting treatment and expire on July 30, 2017.

Note 12. Redeemable Preferred Stock

Redeemable Series B Preferred Stock

We have 250,000 shares of our 5% Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000) ("Series B Preferred Stock") authorized for issuance. At October 31, 2016 and 2015, 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 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.

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 Company, 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, 2016, 2015 and 2014. There were no cumulative unpaid dividends at October 31, 2016 and 2015.

- **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, 2016 and 2015, 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 7.0922 shares of our common stock (which is equivalent to an initial conversion price of \$141 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% of the then prevailing conversion price (\$141 at October 31, 2016) 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% 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

FuelCell Energy Ltd. (“FCE Ltd”), the Company’s wholly owned subsidiary, has 1,000,000 Series 1 Preferred Shares outstanding, (“Preferred Shares”) which are held by Enbridge, Inc. (“Enbridge”). FuelCell guarantees the return of principal and dividend obligations of FCE Ltd. to the Series 1 preferred shareholder.

The terms of the Series 1 Preferred Shares includes 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.

Because the Series 1 preferred shares are classified as a mandatorily redeemable financial instrument, they are presented as a liability on the consolidated balance sheet.

The Company made its scheduled payments of Cdn. \$1.3 million during each of fiscal year 2016, 2015 and 2014, under the terms of the agreement, including the recording of interest expense, which reflects the amortization of the fair value discount of approximately Cdn. \$2.4 million, Cdn. \$2.3 million and Cdn. \$2.1 million, respectively. At October 31, 2016 and 2015, the carrying value of the Series 1 Preferred shares was Cdn. \$18.0 million (\$13.5 million) and Cdn. \$16.9 million (\$12.6 million), 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% of the volume weighted-average price in U.S. dollars at which board lots of the common shares have been traded on NASDAQ during the 20 consecutive trading days preceding the end of the calendar quarter for which such dividend in common shares is to be paid converted into Canadian dollars using the Bank of Canada’s noon rate of exchange on the day of determination.
- **Redemption** — The Series 1 Preferred Shares are redeemable by FCE Ltd. for Cdn. \$25 per share less any amounts paid as a return of capital in respect of such share plus all unpaid dividends and accrued interest. Holders of the Series 1 Preferred Shares do not have any mandatory or conditional redemption rights.
- **Liquidation or Dissolution** — In the event of the liquidation or dissolution of FCE Ltd., the holders of Series 1 Preferred Shares will be entitled to receive Cdn. \$25 per share less any amounts paid as a return of capital in respect of such share plus all unpaid dividends and accrued interest. The Company has guaranteed any liquidation obligations of FCE Ltd.

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

- Cdn. \$1,664.52 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% 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% 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 bifurcated 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 at October 31, 2016 and 2015 was \$0.7 million.

Note 13. Segment Information

We are engaged in the development, design, production, construction 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, 2016, 2015 and 2014 were as follows:

	2016	2015	2014
United States	\$ 48,697	\$ 52,109	\$ 52,765
South Korea	52,007	109,953	124,669
England	277	142	119
Germany	7,147	764	869
Canada	124	—	820
Spain	—	109	1,051
Total	\$108,252	\$163,077	\$180,293

Service agreement revenue which is included within Service agreements and license revenues on the consolidated statement of operations was \$26.6 million, \$16.3 million and \$21.7 million, for the years ended October 31, 2016, 2015 and 2014, respectively.

Long-lived assets located outside of the United States at October 31, 2016 and 2015 are not significant individually or in the aggregate.

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 Company has 2006 and 2010 Equity Incentive Plans (collectively, the "Equity Plans"). In April 2016, the number of shares of common stock reserved for issuance under the Equity Plans was increased to 2.5 million shares by vote of a majority of the Company's security holders. 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. The Company also has an international award program to provide RSUs for the benefit of certain employees outside the United States. At October 31, 2016, there were 0.8 million shares available for grant. At October 31, 2016, equity awards outstanding consisted of incentive stock options, nonstatutory stock options, RSAs and RSUs.

The Company's 1998 Equity Incentive Plan remains in effect only to the extent of awards outstanding under the plan at October 31, 2016.

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

	2016	2015	2014
Cost of revenues	\$ 745	\$ 769	\$ 751
General and administrative expense	2,110	1,990	1,718
Research and development expense	504	360	436
Share-based compensation	\$3,359	\$3,119	\$2,905

Stock Options

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:

	2016	2015	2014
Expected life (in years)	7.0	7.0	7.0
Risk free interest rate	1.5%	1.7%	2.3%
Volatility	80.1%	80.3%	81.1%
Dividend 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.

The following table summarizes our stock option activity for the year ended October 31, 2016:

Options	Shares	Weighted-Average Option Price
Outstanding at October 31, 2015	257,769	\$ 57.89
Granted	24,310	\$ 6.44
Cancelled	(35,156)	\$113.31
Outstanding at October 31, 2016	246,923	\$ 44.88

The weighted-average grant-date fair value per share for options granted during the years ended October 31, 2016, 2015 and 2014 was \$6.44, \$13.24 and \$21.48, respectively. There were no options exercised in fiscal year 2016, 2015 or 2014.

The following table summarizes information about stock options outstanding and exercisable at October 31, 2016:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number outstanding	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number exercisable	Weighted-Average Exercise Price
\$ 3.24 — \$ 61.20	165,498	6.2	\$ 18.78	154,421	\$ 19.49
\$ 61.21 — \$119.04	76,205	0.9	\$ 96.40	76,205	\$ 96.40
\$119.05 — \$176.88	5,220	0.9	\$120.28	5,220	\$ 120.28
	<u>246,923</u>	4.5	\$ 44.88	<u>235,846</u>	\$ 46.57

There was no intrinsic value for options outstanding and exercisable at October 31, 2016.

Restricted Stock Awards and Units

The following table summarizes our RSA and RSU activity for the year ended October 31, 2016:

Restricted Stock Awards and Units	Shares	Weighted-Average Price
Outstanding at October 31, 2015	483,570	\$ 16.67
Granted	704,153	\$ 6.40
Vested	182,738	\$16.11
Forfeited	14,950	\$13.21
Outstanding at October 31, 2016	990,035	\$ 9.52

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 4 years. At October 31, 2016, the 1.0 million outstanding RSAs and RSUs had an average remaining life of 2.8 years and an aggregate intrinsic value of \$3.0 million.

At October 31, 2016, total unrecognized compensation cost related to RSAs including RSUs was \$7.5 million which is expected to be recognized over the next 2.8 years on a weighted-average basis.

Stock Awards

During the years ended October 31, 2016, 2015 and 2014, we awarded 24,379; 2,399 and 979 shares, respectively, of fully vested, unrestricted common stock to the independent members of our board of directors as a component of board of director compensation which resulted in recognizing \$0.2 million, \$0.1 million and \$0.1 million of expense for each of the respective years.

Employee Stock Purchase Plan

Under the ESPP, eligible employees have the right to purchase shares of common stock at the lesser of (i) 85% of the last reported sale price of our common stock on the first business day of the offering period, or (ii) 85% 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 0.5 years after the date of purchase.

ESPP activity for the year ended October 31, 2016 was as follows:

ESPP	Number of Shares
Balance at October 31, 2015	88,043
Issued at \$9.02 per share	(11,664)
Issued at \$5.07 per share	(14,153)
Available for issuance at October 31, 2016	62,226

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:

	2016	2015	2014
Expected life (in years)	0.5	0.5	0.5
Risk free interest rate	0.30%	0.07%	0.08%
Volatility	37.0%	72.0%	75.0%
Dividends yield	—%	—%	—%

The weighted-average fair value of shares issued under the ESPP during fiscal year 2016 and 2015 was \$6.86 and \$16.08 per share, respectively.

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. Matching contributions of 2% under the Plan aggregated \$0.6 million, \$0.4 million and \$0.3 million for the years ended October 31, 2016, 2015, and 2014, respectively.

Note 15. Income Taxes

The components of loss from continuing operations before income taxes for the years ended October 31, 2016, 2015 and 2014 were as follows:

	2016	2015	2014
U.S.	\$ (46,708)	\$ (26,459)	\$ (35,167)
Foreign	(3,981)	(2,951)	(3,228)
Loss before income taxes	\$ (50,689)	\$ (29,410)	\$ (38,395)

There was current income tax expense of \$0.5 million, \$0.3 million and \$0.5 million related to foreign withholding taxes and income taxes in South Korea and no deferred federal income tax expense (benefit) for the years ended October 31, 2016, 2015 and 2014, respectively. Franchise tax expense, which is included in administrative and selling expenses, was \$0.4 million for year ended October 31, 2016 and \$0.2 million for each of the years ended October 31, 2015 and 2014.

The reconciliation of the federal statutory income tax rate to our effective income tax rate for the years ended October 31, 2016, 2015 and 2014 was as follows:

	2016	2015	2014
Statutory federal income tax rate	(34.0)%	(34.0)%	(34.0)%
Increase (decrease) in income taxes resulting from:			
State taxes net of Federal benefits	(0.2)%	(0.1)%	(1.8)%
Foreign withholding tax	1.1%	0.9%	1.0%
Net operating loss adjustment and true-ups	3.3%	4.7%	(25.4)%
Nondeductible expenditures	0.9%	0.1%	14.5%
Change in state tax rate	(0.3)%	1.6%	(0.8)%
Other, net	0.2%	0.4%	0.4%
Valuation allowance	30.1%	27.3%	47.1%
Effective income tax rate	1.1%	0.9%	1.0%

Our deferred tax assets and liabilities consisted of the following at October 31, 2016 and 2015:

	2016	2015
Deferred tax assets:		
Compensation and benefit accruals	\$ 9,625	\$ 8,389
Bad debt and other allowances	1,276	1,109
Capital loss and tax credit carryforwards	12,772	12,998
Net operating losses (domestic and foreign)	265,799	257,373
Deferred license revenue	8,616	9,313
Inventory valuation allowances	278	77
Accumulated depreciation	4,653	535
Grant revenue	1,327	—
Gross deferred tax assets:	304,346	289,794
Valuation allowance	(304,346)	(289,794)
Deferred tax assets after valuation allowance	—	—
Deferred tax liability:		
In process research and development	(3,377)	(3,377)
Net deferred tax liability	\$ (3,377)	\$ (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. None of the valuation allowance will reduce additional paid in capital upon subsequent recognition of any related tax benefits. In connection with our 2012 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, 2016, we had federal and state NOL carryforwards of \$748.6 million and \$405.8 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 2035 while state NOL carryforwards expire in varying amounts from fiscal year 2017 through 2035. Additionally, we had \$11.1 million of state tax credits available, of which \$0.7 million expires in fiscal year 2018. The remaining credits do not expire.

Certain transactions involving the Company's beneficial ownership occurred in fiscal year 2014 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 year 2016 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 2016 under Section 382. The acquisition of VERSA in fiscal year 2013 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, 2016 and 2015 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 South Korea and Germany. We are open to examination by the Internal Revenue Service and various states in which we file for fiscal year 2000 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, 2016, 2015 and 2014 was as follows:

	2016	2015	2014
Numerator			
Net loss	\$(51,208)	\$(29,684)	\$(38,883)
Net loss attributable to noncontrolling interest	251	325	758
Preferred stock dividend	(3,200)	(3,200)	(3,200)
Net loss attributable to common shareholders	\$(54,157)	\$(32,559)	\$(41,325)
Denominator			
Weighted-average basic common shares	29,773,700	24,513,731	20,473,915
Effect of dilutive securities ⁽¹⁾	—	—	—
Weighted-average diluted common shares	29,773,700	24,513,731	20,473,915
Basic loss per share	\$(1.82)	\$(1.33)	\$(2.02)
Diluted loss per share ⁽¹⁾	\$(1.82)	\$(1.33)	\$(2.02)

(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. At October 31, 2016 and 2015, potentially dilutive securities excluded from the diluted loss per share calculation are as follows:

	October 31, 2016	October 31, 2015
July 2016 Offering - Series A Warrants	7,680,000	—
July 2016 Offering - Series B Warrants	3,826,000	—
July 2014 Offering - NRG Warrants	166,666	166,666
Outstanding options to purchase common stock	246,923	257,769
Unvested RSAs	915,831	450,783
5% Series B Cumulative Convertible Preferred Stock ⁽²⁾	454,043	454,043
Series 1 Preferred Shares to satisfy conversion requirements ⁽²⁾	1,042,000	337,200
Total potentially dilutive securities	14,331,463	1,666,461

(2) Refer to Note 12, Redeemable Preferred Stock, for information on the calculation of the common shares upon conversion.

Note 17. Commitments and Contingencies

Lease Agreements

At October 31, 2016 and 2015, we had capital lease obligations of \$0.7 million. 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 2019. Rent expense was \$1.8 million, \$1.7 million and \$1.7 million for the years ended October 2016, 2015 and 2014, respectively.

On April 22, 2016, the Company modified its Torrington, Connecticut, lease to extend the term for an additional period of 15 years from January 1, 2016, and to provide the Company the right to expand the existing facility to 167,000 square feet. The Company has the right to purchase the facility and premises for a price of \$4.7 million at any time during the fifteen year term, but no later than December 31, 2030.

Non-cancelable minimum payments applicable to operating and capital leases at October 31, 2016 were as follows:

	Operating Leases	Capital Leases
2016	\$1,321	\$375
2017	1,053	216
2018	737	60
2019	325	9
2020	363	—
Thereafter	3,751	—
Total	\$7,550	\$660

Service and Warranty Agreements

Under the provisions of our service agreements, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Under the terms of our service agreements, the power plant must meet a minimum operating output during the term. If minimum output falls below the contract requirement, we may be subject to performance penalties and/or may be required to repair or replace the customer's fuel cell module. 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 an accrual 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 an accrual for performance guarantees, based on actual historical fleet performance, which totaled \$3.3 million and \$2.6 million at October 31, 2016 and 2015, respectively, and is recorded in Accrued Liabilities.

Our loss accrual on service agreements, excluding the accrual for performance guarantees, totaled \$2.7 million and \$0.8 million at October 31, 2016 and 2015, respectively, and is recorded in Accrued Liabilities. Our accrual 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 typically not required to produce minimum amounts of power under our PPA agreements and we typically have the right to terminate PPA agreements by giving written notice to the customer, subject to certain exit costs.

Expansion of Torrington Facility and Related Low-Cost Financing

In December 2015, the Company commenced the first phase of its project to expand the existing 65,000 square foot manufacturing facility in Torrington, Connecticut by approximately 102,000 square feet for a total size of 167,000 square feet. Initially, this additional space will be used to enhance and streamline logistics functions through consolidation of satellite warehouse locations and will provide the space needed to reconfigure the existing production process to improve manufacturing efficiencies and realize cost savings.

On November 9, 2015, the Company closed on a definitive Assistance Agreement with the State of Connecticut and received a disbursement of \$10.0 million to be used for the first phase of the expansion project. In conjunction with this financing, the Company entered into a \$10.0 million Promissory Note and related security agreements. See Note 10 for additional information. The second phase of our manufacturing expansion, for which we will be eligible to receive an additional \$10.0 million in low-cost financing from the State of Connecticut, will commence as demand supports.

The first phase of the expansion is expected to result in expenditures of up to \$23.0 million that will be partially off-set by the \$10.0 million of first phase funding received from the State of Connecticut. The total investment for both phases of the expansion could be up to \$65.0 million over a five-year period, of which \$20.0 million will be funded by low-cost financing from the State of Connecticut.

Other

At October 31, 2016, the Company has unconditional purchase commitments aggregating \$61.7 million, for materials, supplies and services in the normal course of business.

Under certain sales and financing agreements the Company is contractually committed to provide compensation for any losses that our customers and finance partners may suffer in certain limited circumstances resulting from reductions in the U.S. Investment Tax Credit. Such obligations would arise as a result of reductions to the value of the underlying fuel cell projects as assessed by the U.S. Internal Revenue Service (IRS). The Company does not believe that any payments under these contracts are probable based on the facts known at the reporting date. The maximum potential future payments that the Company could have to make under this obligation would depend on the difference between the fair values of the fuel cell projects sold or financed and the values the IRS would determine as the fair value for the systems for purposes of claiming the Investment Tax Credit. The value of the Investment Tax Credit in the Company's agreements is based on guidelines provided by the

statutory regulations from the IRS. The Company and its customers use fair values determined with the assistance of independent third-party appraisals.

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,		
	2016	2015	2014
Cash interest paid	\$ 1,941	\$ 677	\$ 1,892
Income taxes paid	80	8	35
Noncash financing and investing activity:			
Common stock issued for convertible note conversions and make-whole settlements	—	—	46,186
Common stock issued for Employee Stock Purchase Plan in settlement of prior year accrued employee contributions	105	169	105
Accrued sale of common stock, cash received in a subsequent period	357	494	633
Accrued purchase of fixed assets, cash paid in subsequent period	3,952	—	—
Accrued purchase of project assets, cash paid in subsequent period	1,797	—	—

Note 19. Quarterly Information (Unaudited)

Selected unaudited financial data for each quarter of fiscal year 2016 and 2015 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, 2016					
Revenues	\$ 33,482	\$ 28,581	\$ 21,716	\$ 24,473	\$ 108,252
Gross (loss) profit	(166)	(157)	434	(468)	(357)
Loss on operations	(11,517)	(12,708)	(10,323)	(11,805)	(46,353)
Net loss	(11,779)	(15,414)	(11,067)	(12,948)	(51,208)
Preferred stock dividends	(800)	(800)	(800)	(800)	(3,200)
Net loss to common shareholders	(12,512)	(16,173)	(11,810)	(13,662)	(54,157)
Net loss to common shareholders per basic and diluted common share ⁽¹⁾	\$ (0.48)	\$ (0.56)	\$ (0.38)	\$ (0.41)	\$ (1.82)
Year ended October 31, 2015					
Revenues	\$ 41,670	\$ 28,600	\$ 41,356	\$ 51,451	\$ 163,077
Gross profit	4,014	2,023	3,595	3,144	12,776
Loss on operations	(5,130)	(8,793)	(7,103)	(7,866)	(28,892)
Net loss	(4,154)	(9,997)	(6,628)	(8,905)	(29,684)
Preferred stock dividends	(800)	(800)	(800)	(800)	(3,200)
Net loss to common shareholders	(4,866)	(10,694)	(7,339)	(9,660)	(32,559)
Net loss to common shareholders per basic and diluted common share ⁽¹⁾	\$ (0.20)	\$ (0.44)	\$ (0.29)	\$ (0.38)	\$ (1.33)

[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

On November 30, 2016, a business restructuring was completed to reduce costs and align production levels with current levels of demand in a manner that is consistent with the Company's long-term strategic plan.

The Company is reducing materials spend as well as implementing various cost control initiatives. The workforce was reduced at both the North American production facility in Torrington, Connecticut, as well as at corporate offices in Danbury and remote locations. A total of 96 positions, or approximately 17% of the global workforce, was impacted. The production rate has been reduced to twenty-five megawatts annually, from the prior rate of fifty megawatts annually, in order to position for delays in anticipated order flow. A personnel-related restructuring charge of approximately \$3.0 million will be incurred in fiscal year 2017, with approximately one half of the charge composed of cash severance costs and the remainder representing non-cash charges. This production level is anticipated to be temporary and will be reevaluated as order flow dictates, with any future increases being undertaken from what is now a lower cost basis.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Exposure

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, 2016, including all interest rate sensitive instruments, a change in interest rates of 1% would not have a material impact on our results of operations.

Foreign Currency Exchange Risk

At October 31, 2016, approximately 6% 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

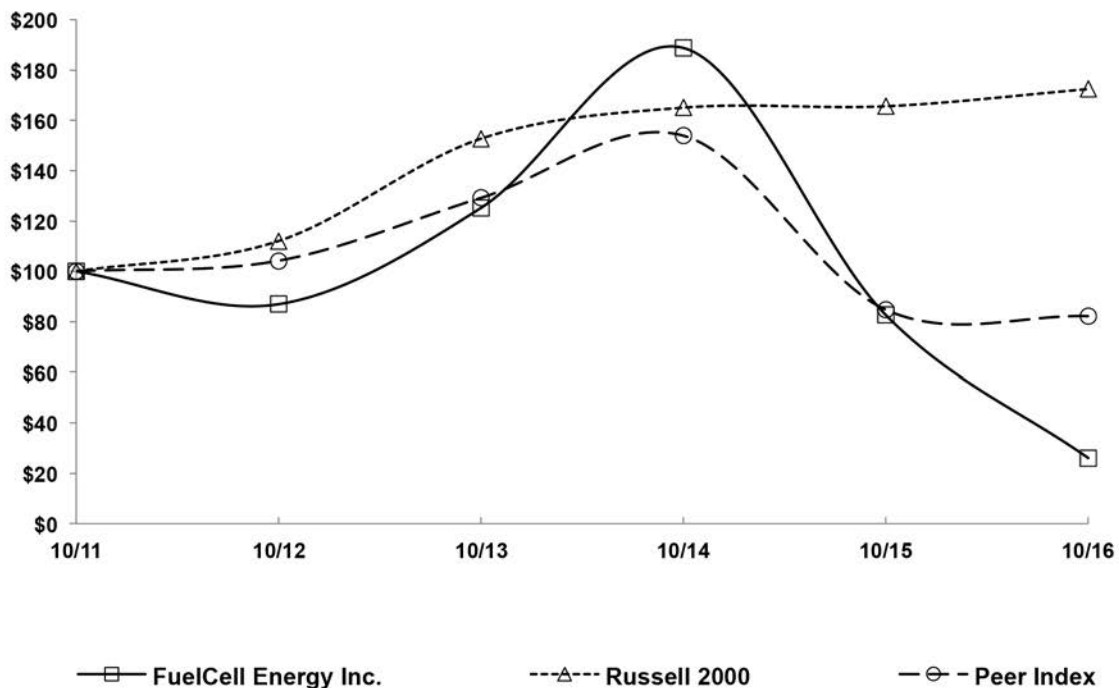
Series 1 Preferred Stock

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 at October 31, 2016 and 2015 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.

PERFORMANCE GRAPH

The following graph compares the annual change in the Company's cumulative total stockholder return on its Common Stock for the five years ended October 31, 2016 with the cumulative stockholder total return on the Russell 2000 Index and a peer group consisting of Standard Industry Classification ("SIC") Group Code 3690 companies listed on the Nasdaq Global Market and New York Stock Exchange for that period ("Peer Index"). It assumes \$100 invested on October 31, 2011 with dividends reinvested.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
 Among FuelCell Energy Inc., the Russell 2000 Index,
 and Peer Index



*\$100 invested on 10/31/11 in stock or index, including reinvestment of dividends.
 Fiscal year ending October 31.

Copyright© 2016 Russell Investment Group. All rights reserved.

*The 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, 2016 with the cumulative stockholder total return on the Russell 2000 Index, a peer group consisting of Standard Industry Classification ("SIC") Group Code 369 companies listed on the Nasdaq Global Market and New York Stock Exchange and a customized 17 company peer group.

FORWARD-LOOKING STATEMENT DISCLAIMER

When used in this report, the words "expects," "anticipates," "estimates," "should," "will," "could," "would," "may," "forecast," and similar expressions are intended to identify forward-looking statements. Such statements relate to, among other things, the following: the development and commercialization by FuelCell Energy, Inc. and its subsidiaries ("FuelCell Energy," "Company," "we," "us" and "our") of fuel cell technology and products and the market for such products; expected operating results such as revenue growth and earnings; our belief that we have sufficient liquidity to fund our business operations for the next 12 months; future funding under Advanced technology 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.

The 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, the following: general risks associated with product development and manufacturing; general economic conditions; changes in the utility regulatory environment; changes in the utility industry and the markets for distributed generation, distributed hydrogen, and carbon capture configured fuel cell power plants for coal and gas-fired central generation; potential volatility of energy prices; availability of government subsidies and economic incentives for alternative energy technologies; rapid technological change; competition; market acceptance of our products; changes in accounting policies or practices adopted voluntarily or as required by accounting principles generally accepted in the United States; factors affecting our liquidity position and financial condition; government appropriations; the ability of the government to terminate its development contracts at any time; the ability of the government to exercise "march-in" rights with respect to certain of our patents; POSCO's ability to develop the market in Asia, deploy Direct FuelCell® ("DFC") power plants and successfully operate its Asian manufacturing facility; our ability to implement our strategy; our ability to reduce our levelized cost of energy; the risk that commercialization of our products will not occur when anticipated; our ability to generate positive cash flow from operations; our ability to service our long-term debt; our ability to increase the output and longevity of our power plants; and our ability to expand our customer base and maintain relationships with our largest customers and strategic partners.

We cannot assure you that: we will be able to meet any of our development or commercialization schedules; any of our new products or technology, once developed, will be commercially successful; our existing DFC power plants will remain commercially successful; or the government will appropriate the funds anticipated by us under our government contracts; the government will not exercise its right to terminate any or all of our government contracts; 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.

SHAREHOLDER INFORMATION

Corporate Offices

FuelCell Energy, Inc.
3 Great Pasture Road
Danbury, CT 06810

Form 10-K

A copy of the Annual Report on Form 10-K for the year ended October 31, 2016, which is filed with the U.S. Securities and Exchange Commission, can be accessed from our website at www.fuelcellenergy.com. We will provide, without charge, a copy of the Annual Report on Form 10-K for the year ended October 31, 2016. You may request a copy by writing to Investor Relations at the address below.

Company Contacts

For additional information about FuelCell Energy, Inc. please contact:

FuelCell Energy, Inc.
Investor Relations
3 Great Pasture Road
Danbury, CT 06810
IR@fce.com

Corporate Website

www.fuelcellenergy.com

Registrar and Transfer Agent

Shareholders with questions regarding lost certificates, address changes or changes of ownership should contact:

American Stock Transfer & Trust Company, LLC
Operations Center
6201 15th Avenue
Brooklyn, NY 11219
(800) 937.5449
(718) 921.8124
info@amstock.com
www.amstock.com

Independent Registered Public Accounting Firm

KPMG LLP

Legal Counsel

Patterson Belknap Webb & Tyler LLP
Robinson & Cole LLP

Annual Meeting

The Annual Meeting of Shareholders will be held Thursday, April 6, 2017 at 10:00 a.m. at:

JW Marriott Essex House New York
160 Central Park South
New York, NY

Common Stock Price Information

Our common stock has been publicly traded since June 25, 1992. 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 2017 (through December 30, 2016)	\$ 3.40	\$ 1.60
Year Ended October 31, 2016		
First Quarter	\$12.24	\$ 4.51
Second Quarter	8.08	4.56
Third Quarter	8.88	5.02
Fourth Quarter	5.67	3.35
Year Ended October 31, 2015		
First Quarter	\$27.60	\$12.60
Second Quarter	17.40	13.68
Third Quarter	15.36	9.72
Fourth Quarter	12.00	7.68

On December 30, 2016, the closing price of our common stock on the Nasdaq Global Market was \$1.75 per share. At December 30, 2016, there were 169 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.

Non-Discrimination Statement

FuelCell Energy, Inc. is an Equal Opportunity/Affirmative Action employer. In order to provide equal employment and advancement opportunities to all individuals, our employment decisions will be based on merit, qualifications and abilities. We do not discriminate in employment opportunities or practices on the basis of race, color, religion, creed, age, sex, marital status, national origin, ancestry, past or present history of mental disorder, mental retardation, learning disabilities, physical disability, sexual orientation, gender identification, genetic information, or any other characteristic protected by law.

DIRECTORS AND OFFICERS

BOARD OF DIRECTORS

John A. Rolls ^{1, 2, 3, 5}

Managing Partner of Core Capital Group, a private investment partnership and former Executive Vice President and Chief Financial Officer of United Technologies

Arthur A. Bottone ²

President and Chief Executive Officer of FuelCell Energy, Inc.

James H. England ^{3, 4}

Corporate Director and Chief Executive Officer of Stahlman—England Irrigation, Inc.

Matthew Hilzinger ^{3, 5}

Executive Vice President and Chief Financial Officer, USG Corporation and former Chief Financial Officer of Exelon Corporation

Christopher S. Sotos

President, Chief Executive Officer and Director, NRG Yield, Inc.

Natica von Althann ^{3, 4, 5}

Founding partner of C&A Advisors and a former financial executive at Bank of America and Citigroup

Togo Dennis West, Jr. ^{2, 4, 5}

Former U.S. Secretary of the Army and U.S. Secretary of Veterans Affairs

¹ Chairman of the Board of Directors

² Executive Committee

³ Audit and Finance Committee

⁴ Compensation Committee

⁵ Nominating and Corporate Governance Committee

OFFICERS

Arthur A. Bottone

President and Chief Executive Officer

Michael S. Bishop

Senior Vice President, Chief Financial Officer, Corporate Secretary and Treasurer

Anthony F. Rauseo

Senior Vice President and Chief Operating Officer

Statements in this Report relating to matters not historical are forward-looking statements that involve important factors that could cause actual results to differ materially from those anticipated. Cautionary statements identifying such important factors are described in reports, including the Form 10-K for the fiscal year ended October 31, 2016, filed by FuelCell Energy, Inc. with the Securities and Exchange Commission and available at www.fuelcellenergy.com.

FuelCell Energy with the corresponding logo is a registered trademark of FuelCell Energy, Inc. "Direct FuelCell," "DFC," "DFC-H2" and "DFC/T" are registered trademarks of FuelCell Energy, Inc. DFC-ERG is a registered trademark of FuelCell Energy, Inc. and Enbridge Inc.

All rights reserved. © FuelCell Energy, Inc. 2017



3 Great Pasture Road
Danbury, CT 06813-1305
203.825.6000

www.FuelCellEnergy.com

