

ETI ALPHADIRECT MANAGEMENT SERIES

AUGUST 22, 2017

IN FOCUS: FUELCELL ENERGY, INC. AND PROJECT FINANCE DRIVERS, STRUCTURE AND RETURNS.

This report focuses on FuelCell Energy, Inc. (FCEL) and project finance structure, economics and drivers of FuelCell Energy's projects.



Source: www.fuelcellenergy.com

THE ENERGYTECH INVESTOR INSIGHT

In this report, EnergyTech Investor focuses on project finance structures as well as the economics and drivers of FuelCell Energy's projects. As with any power project, there are a variety of approaches to structure and finance deals and it is a critical aspect of the company's ability to grow and develop new projects. FuelCell Energy's projects tend to have attractive project finance economics including reliable, longterm cash flows with minimal technology and development risks. We believe the projects offer a very competitive return on investment relative to other projects of similar size and nature. In this report, we review a number of the variables and an overview of the analysis that helps secure capital for FuelCell Energy's projects. Furthermore, the company is building its own portfolio of projects that we believe can offer a unique opportunity for the average shareholder to participate in attractive project finance economics.

FCEL Business Snapshot

Founded: 1969 Headquarters: Danbury, CT, USA Ticker: FCEL (NASDAQ) Full Time Employees: 500 Stock Price: \$1.41* Market Cap: \$83.301M* Website: www.fuelcellenergy.com *As of August 18, 2017



About EnergyTech Investor

EnergyTech Investor, LLC (ETI) is an independent research and Investor Intelligence firm that creates and digital content implements and programs to help investors better understand a company's key drivers including industry dynamics, technology, strategy, outlook and risks as well as the impact they could have on the stock price. EnergyTech Investor's expertise encompasses a variety of sectors including Clean Transportation, Emerging EnergyTech, Energy Services, Smart Buildings, Solar, Water Value Chain and Industrial. EnergyTech Investor was founded by Wall Street veteran and research analyst, Shawn Severson, after seeing a significant shift in the investment industry that resulted in less fundamental research conducted on small cap companies and a significant decline in information available to all investors. ETI's mission is to bridge that information gap and engage companies and investors in a way that opens information flow and analytical insights.

To learn more, visit: www.energytechinvestor.com or follow us on LinkedIn or Twitter.





Participants

Mr. Michael Bishop Senior Vice President, Chief Financial Officer and Treasurer

FuelCell Energy, Inc.

Mr. Bishop has nearly 20 years of experience in financial operations and management with public high growth technology companies with a focus on capital raising, project finance, debt/treasury management, acquisition integration, strategic planning, internal controls, and organizational development. Since joining FuelCell Energy in 2003, Mr. Bishop has held a succession of financial leadership roles including Assistant Controller, Corporate Controller and Vice President and Controller. Prior to joining FuelCell Energy, Inc., Mr. Bishop held finance and accounting positions at TranSwitch Corporation, Cyberian Outpost, Inc. and United Technologies, Inc.

Mr. Elliot Gnedy Vice President of Commercial Finance FuelCell Energy, Inc.

Mr. Gnedy is responsible for all the origination, structuring, syndication, and execution of project finance transactions for FuelCell Energy. He has 8+ years of experience in renewable energy finance having completed over \$500MM of project finance transactions including direct sale M&A, sale leaseback, partnership flip, construction and term finance. Prior to joining FCE, Elliot was with Global Capital Finance LLC, working on both buy -side and sell-side M&A transactions for developers, financial institutions, and infrastructure funds. Elliot earned a B.S. from Lehigh University and an MBA from the Stern School of Business at NYU.

Mr. Shawn Severson Founder and CEO EnergyTech Investor, LLC

Mr. Severson is the founding partner and CEO of EnergyTech Investor, LLC. He has over 20 years of experience as a senior research analyst covering the technology and cleantech industries. Prior to founding ETI he lead the Energy, Environmental and Industrial Technologies practice at the Blueshirt Group. Mr. Severson was frequently ranked as a top research analyst including one of the Wall Street Journal's "Best on the Street" stock pickers and multiple awards as Starmine's top three stock pickers.

ABOUT FCEL

FuelCell Energy (NASDAQ: FCEL) delivers efficient, affordable and clean solutions for the supply, recovery and storage of energy. company designs, manufactures, The undertakes project development, installs, operates and maintains megawatt-scale fuel cell systems while serving utilities, industrial and large municipal power users with solutions that include both utility-scale and on-site power generation, carbon capture, local hydrogen production for transportation and industry, and long duration energy storage. With SureSource™ installations on three continents and millions of megawatt hours of ultra-clean power produced, FuelCell Energy is a global leader with environmentally responsible power solutions.





Shawn Severson: Firstly, I would like to thank you, Mike, for taking the time to speak with us today. In the previous meeting with FuelCell Energy's CEO, Chip Bottone, we discussed fuel cells and their competitiveness when compared to other renewable power sources. Today's focus will be on the financial structure of Fuel Cell projects, project drivers and returns. Before we begin, can you give us some more color on your background as CFO of FuelCell Energy?

Mike Bishop: Sure, thank you for doing this, Shawn. I've been CFO of FuelCell Energy for about five years, and I've been with FuelCell Energy for approximately 14 years now. l've worked with the senior management team and the Board here to grow the company and introduce our commercial applications to the marketplace as the company has grown alobally. As part of that, I have become immersed in the project finance side of things as well. Prior to joining FuelCell Energy, I've worked at other public companies, both small and large in size. My background is in public accounting, however I work very closely here at FuelCell traditional with not only with CFO responsibilities, but also with our commercial team, helping to structure deals with our customers.

Shawn Severson: Thanks, Mike. We also have Elliot Gnedy with us today. He is the Vice President of Finance and manages Project Finance for FuelCell Energy. Could you give us a brief overview of your background as well, Elliot?

Elliot Gnedy: Sure, I'm happy to do that. I've been with FuelCell Energy for about four and a half years and am responsible for all of our commercial finance efforts which include, but are not limited to, securina construction financing, term financing, traditional cash equity as well as tax equity. In other words, I'm responsible for securing every element of the capital structure. I work very closely with the sales team on projects, opportunity origination, and then all syndication of assets ages through me and the commercial finance team. Prior to FuelCell Energy, I was with a boutique investment bank that primarily focuses on hard asset M&A with a specialty in renewable transactions. energy This includes wind, solar, biomass, and I have now transitioned to fuel cells. As it relates to education, I have a MBA that I obtained from NYU Stern, and an undergraduate degree in Business Economics from Lehigh University.

Shawn Severson: Great, thank you, Elliot. Mike, let's begin with you. Can you explain the different ownership structures for fuel cell power plants?

Mike Bishop: Sure. Our project structure has evolved over time. When I started with FuelCell Energy, we were developing small 250 kilowatt projects to get the technology out in the field to demonstrate its reliability and benefits to our customers. These days, projects are much, much larger ranging from 2 meaawatts up to 60 plus meaawatts in size. Therefore, as the size of the projects has evolved, ownership structures have evolved as well. In previous years, customers would directly buy the fuel cell power plant and today that remains the primary ownership structure with utilities. The utility customers that we have in the US, Europe, or Asia will typically buy the power plant and finance it internally or bring in financing, so the utility owns the project and places it into their rate-base.

EnergyTech Investor Helping Investors Make Intelligent Decisions Through Better Information. [(415)-233-7093 (tel) | www.energytechinvestor.com | research@energytechinvestor.com |



But beyond utility ownership, you'll see behind-the-meter type customer that will occasionally purchase the project, but more and more they are looking for third party ownership where they benefit from the attributes of the power plant, meaning that they can lock in long-term energy pricina, and the renewable attributes of the power plant, without committing their own capital. In those types of structures, you'll see banks, infrastructure funds or Yieldco's own the assets, and we can talk about some specifics. We're building a portfolio on our balance sheet of select assets where we retain ownership of the plant and have third party financing and sell the electricity directly to the end customer generating recurring long time electricity or Generation revenue.

Shawn Severson: Thanks, Mike. Exploring that area a bit further, can you provide us with an overview of a representative fuel cell project in terms of the needs being addressed by the power plant, the various parties involved, and maybe a typical project timeline?

Mike Bishop: I'll give a behind-the-meter example that we recently did here in Connecticut. A great example is a fivemegawatt plant that we have at Pfizer Research and Development Campus in Groton, Connecticut. Pfizer had power reliability issues on their campus, therefore their intention was to develop an onsite generating plant and they undertook a broad procurement process looking at different technologies and various fuel cell providers. Following this extensive review, they selected FuelCell Energy to provide a complete turnkey project. We installed a 5.6-megawatt plant for their campus, which was fully operational within 10 months of

initially the sianina power purchase agreement with Pfizer. What they were looking for was not only reliability of an but also micro enerav supply, arid capabilities, meaning that if the grid should, for any reason, lose electricity, then they would still be able to fully operate their campus with the use of the fuel cell, along with the heat benefits that come along with the fuel cell installation. They were searching for a power purchase agreement structure, which we were able to provide with a 20-year power purchase agreement at a fixed energy cost. We secured financing for this project through PNC Eneray Capital. And as previously mentioned, with the plant built in less than 10 months, this is a great project example.

Shawn Severson: Thank you. What were the specific attributes of fuel cell projects that attract project capital?

Mike Bishop: Maybe I'll turn this over to Elliot. At a high level, our plants operate at a high capacity factor as compared to other renewable resources, thus generating strong long-term cash flows, but let me turn it over to Elliot for his thoughts on that as well.

Elliot Gnedy: Thank you, Mike. Elaborating on what you said, it is dependent on several major factors when you're looking at project level capital and when you're lookina at the universe of possible investments, fuel cells really stand out from an environmental perspective. Obviously, it's clean generation, but as far as footprint goes, it's an easily managed footprint. It's very small compared to other competing clean technologies. The reason why that's important to project capital is because you're considering when funding a development that requires 100, 200, or even



300 acres of land, compared to us only needing an acre and a half, or two acres, you have added land costs and the reauirement to conduct extensive environmental studies, which would obviously delay projects and result in unforeseen issues. And we can find one or two acres of commercially zoned property near where the power is used at reasonable cost. With that said, there are a lot more project uncertainties with some of those intermittent opportunities compared to ours on footprint alone. Additionally, you're talking about more predictability as it relates to cash flows. We do not have the issue of intermittency of output as long as you have the bio-gas, or the natural gas, or the hydrogen source, or whatever you have chosen to use, you will be able to generate power every day and every hour of the week. As a result, you have a great predictability in cash flows and while there are a lot of models out there that can speak to your solar radiance, or wind patterns, etc, you're still subjected to external factors.

The other element, of course, is because we do start at a 1.4-megawatt project as our baseline project and scale up very easily, you're able to get to size quite quickly. Why that is attractive to project capital is because they're looking to make certain ticket size investments and the universe of investors shrinks quite dramatically when you're talking about investments at only \$1-4 million dollars. Hence, the fact that we're able to offer projects of size in the tens of millions of dollars or more is certainly attractive along with the predictability of the cash flows and because of some of the loaistical issues of associated with sighting the project. Our solution is a lot more simplified. When you're thinking about predictability of cash flows, it's easier see

what your debt service is going to look like and that makes those conversations with debt providers that much easier by being able to add attractive, well-structured leverage to the deal that boosts your levered return, which further enhances the value proposition.

Shawn Severson: Thank you Elliot for expanding on that a bit more. What are some of the different variables that impact a project return?

Elliot Gnedy: One thing that I will say about the technology as a whole is that there is a high level of predictability, and hence, there is not as much variability like you might see across the broader clean energy industry. We talked briefly about the predictability of the cash flows and when vou think about your revenue streams, those can come from a handful of sources. First and foremost, is the sale of power. Generally, all of our projects have long-term power offtake agreements. So, you have really great visibility into a revenue stream that you'll be generating from the power purchase agreement or PPA based on the amount of megawatt hours that you generate. When you think about what that revenue stream is going to look like, it really just comes down to the performance of the fuel cell and we have a lot of information on the performance of our overall fleet which is monitored 24/7 and we have a lot of data points in the performance of an individual plant. Because we're able to monitor inhouse, if there are any issues, we're able to respond quickly and make sure that the plant is operating at its expected output, which then in turn drives your expected revenue streams. In addition to this, you could have REC revenues, the sale of renewable energy credits, and those once



again are going to be driven by your output and because we can manage the output, we're able to project a lot of revenue certainties on the REC side as well. The last element where we also have potential for revenue streams is significantly lower in terms of percentage of revenue streams and that is the capacity market. The arid operators or the ISO's value predictable power. Because our plants provide continual base load power, we are able to bid into the capacity market, generating an additional revenue stream. Those are really the three major revenue lines for a project. As it relates to the revenue streams from projects, there are really two main components. One is the long-term service agreement and the O&M. Due to the fact that FuelCell Energy provides the O&M, for all of our plants, we have great visibility into those costs. Once again, there's a lot of stability on the offtake. The remaining element is the fuel cost and we usually try to have the off-taker supply the fuel as a part of the purchase agreement. In those instances, the risk is completely mitigated as the fuel is being supplied by a third party, it's embedded in the PPA and it won't impact your return because it's a pass-through in the project where the fuel goes directly to the offtake and therefore any fluctuation in the fuel price will be handled by them.

Shawn Severson: Great, thank you. I don't know if you want to take this one Mike, but what were the range of financial returns that fuel cell projects can generate?

Mike Bishop: Yes. As Elliot had mentioned earlier in that last answer, it's certainly a variable. It is also dependent on your perspective. We view our projects as lowrisk, long-term, good cash flow generating projects, with great credit worthy off-takers. I highlighted Pfizer as an example - our other behind-the-meter-type projects are with hospitals, universities, and municipalities. Our utility scale installations are either owned by utilities or supported by a utility with long-term power purchase a agreement. Thus, from our perspective, we're aiming to source a low cost of capital. As Elliot had mentioned, there's certainly a premium to what solar and wind can attract due to where the fuel cell industry is in terms of global deployments, however, we're able to source capital in the high single digits, and continue to push that down. From a project investor's perspective, our projects generate great, long-term cash flows.

Shawn Severson: Can you explain the role of SureSource Capital, and the various sources of capital available for project construction and ownership?

Mike Bishop: We have had a project finance arm of our business now for several years called SureSource Capital. We have a classic project finance structure with a holding company for our energy assets and project finance subsidiaries for each one of our installations. We have sourced capital at the holding company level, we have a committed financing facility from our partner, NRG Energy that has supported us with construction financing, and then we bring in long-term project financing at the individual entity level for each one of our installations. As mentioned previously, PNC Energy Capital has been very supportive and has provided financing for multiple projects and we've also done debt financing with regional banks here in Connecticut as well.

Shawn Severson: Please explain the FCE Generation portfolio?

Mike Bishop: As we've talked about, FuelCell Energy selectively retains certain projects on our balance sheet. Typically, these are asset sizes in the range of 1.4 megawatts to approximately υp 10 megawatts and these are behind-themeter projects, with good credit worthy power off-takers including a combination of universities, hospitals, pharmaceutical companies, municipalities. There is also a good geographic profile as well with a number of installations in California and across the Northeast. We expect to continue to grow this portfolio as our projects do have a strong cash flow profile, it improves the cash flow or EBITDA profile of the overall business and provides diversity of revenue streams.

Elliot Gnedy: I just wanted to add something prior question regarding to the the generating portfolio. I just wanted to make mention of the fact that what's really unique and interesting about the portfolio is that we're able to effectively have these assets on balance sheet, but with minimal equity contribution to the project financing and even though we have a minimal equity investment, we do have a very robust contracted residual cash profile for the duration for the power purchase agreement. Hence, it's a really valuable business strategy for us as we bring more projects into the marketplace. Not only do we have a direct sales model, or finance model, but we are also able to attain some of these assets with minimal eauitv investment with maximum contracted residual cash flow for a meaninaful duration.

Shawn Severson: That's a great lead into the next question. We're talking about some the benefits for the common stock holder as we look at project debt finance and the cost of financing. How does this really benefit your equity shareholders, Mike?

Mike Bishop: I agree with everything that Elliot just said and that directly benefits common shareholders. We can use the capital generated from these projects to invest in new growth assets, and as the portfolio arows and deployments arow, the overall cost to capital continues to decline. Having this portfolio and the diversity of revenue streams and cash flows is important to equity investors. We're not just reliant on product sales directly to an end user, but we can generate cash flows by retaining assets as well. Thus, having a diverse portfolio both on balance sheet and multiple ao-to-market strategies certainly benefits equity investors.

Shawn Severson: What would you think is the optimal mix? If you had your way, how much of your revenue stream would come from projects such as this versus equipment sales?

Mike Bishop: We will continue to grow the portfolio. We like the idea long-term of having investors value the stock on an EBITDA-type multiple. You look at other companies in the sector, perhaps geothermal companies, for example, that do retain large percentage of their assets and are able to use that cash flow to enable future growth or return value to the shareholder. I'm not exactly sure of the right percentage, but we'll continue to prudently grow the portfolio where it makes sense.

So to summarize, domestic projects on the customer-side of the meter are strong candidates for adding to the Generation portfolio. Utility projects are more likely to



be structured as an equipment sale as are projects in Europe or South Korea.

Shawn Severson: That's an interesting perspective for an equity investor. It is through this part of your business that enables them to participate effectively in project finance type returns in fuel cells, correct?

Mike Bishop: That's right.

Shawn Severson: Thank you very much, Mike and Elliot, and we look forward to having another conversation with you soon. Thank you again for your time.

Elliot Gnedy: Thanks so much.

Mike Bishop: Thank you, good questions, and look forward to continuing the dialogue.





SHAWN SEVERSON FOUNDER AND CEO

Mr. Severson founded EnergyTech Investor in 2016 after seeing a significant communication and information gap developing between small and micro-cap companies and the financial community. Mr. Severson has over 20 years of experience as a senior research analyst covering the technology and cleantech industries. Previously, he was Managing Director at the Blueshirt Group where he was the head of the Energy, Environmental and Industrial Technologies practice. Prior to the Blueshirt Group, Mr. Severson was at JMP Securities where he was a Senior Equity Research Analyst and Managing Director of the firm's Energy, Environmental Industrial Technologies research team. Before joining JMP, he held senior positions at ThinkEquity, Robert W. Baird (London) and Raymond James. He began his career as an Equity Research Associate at Kemper Securities. He was frequently ranked as a top research analyst including one of the Wall Street Journal's "Best on the Street" stock pickers and multiple awards as Starmine's top three stock pickers.



DISCLOSURE

ETI is an independent research and publishing organization, not a licensed broker, broker dealer, market maker, investment banker, or underwriter. This report is published solely for informational purposes and is not to be construed as an offer to sell or the solicitation of an offer to buy any security in any state. This is not a complete analysis of every material fact regarding any company, industry or security.

ETI may offer its opinions in its articles, reports and interviews concerning featured companies, or the business spaces and market segments in which they operate. Any opinions are provided solely for the general opinionated discussion of its readers and viewers, and therefore should not be considered to be complete, precise, accurate, or current investment advice, and all investment decisions are solely the responsibility of the reader.

A fee has been paid for the sponsored material contained herein (the "Sponsored Materials"), in either cash or restricted stock, by the indicated Company. Additionally, ETI may perform consulting or advisory services for Companies that ETI produce and publish Sponsored Materials for.

The Sponsored Materials are not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. No information in the Sponsored Materials should be construed as individualized investment advice. A licensed financial advisor should be consulted prior to making any investment decision. ETI makes no guarantee, representation or warranty and accepts no responsibility or liability as to its accuracy or completeness of the Sponsored Materials.

ETI assumes no warranty, liability or guarantee for the current relevance, correctness or completeness of any information provided. Furthermore, we assume no liability for any direct or indirect loss or damage or, in particular, for lost profit, which you may incur as a result of the use and existence of the information, provided within the Sponsored Materials. We may distribute our reports through other organizations or companies.

This article contains "forward-looking statements," as that term is used in the federal securities laws, about the advantages of Capstone products and parts; reduction of operating costs, geographic and market diversification; revenue growth in emerging markets; benefits from Capstone Energy Finance and related financing solutions; growth of aftermarket and factory protection plan revenue; and increased margins. Forward-looking statements may be identified by words such as "expects," "objective," "intend," "targeted," "plan" and similar phrases. These forward-looking statements are subject to numerous assumptions, risks and uncertainties described in Capstone's filings with the Securities and Exchange Commission that may cause Capstone's actual results to be materially different from any future results expressed or implied in such statements. Capstone cautions readers not to place undue reliance on these forward-looking statements, which speak only as of the date of this release. Capstone undertakes no obligation, and specifically disclaims any obligation, to release any revisions to any forward-looking statements to reflect events or circumstances after the date of this release or to reflect the occurrence of unanticipated events.

WWW.ENERGYTECHINVESTOR.COM

