



## NEWS RELEASE

# FuelCell Energy Provides Update on Successful Development and Launch of Seven Year Extended Life Stack Modules

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- Production shifted from 5-year to 7-year life stack design in 2018, and subsequent fleet performance is meeting expectations for the new design
- Early prototype stacks with two-years of operation and production stacks with more than one year of operation are trending according to seven-year life expectations
- 40% increase in kWh output expected from each stack before module refurbishment
- 40% decrease in effective cost expected per kWh output from longer-lived stacks, significantly reducing operating costs
- Leading the industry in stack life among high temperature fuel cell suppliers

DANBURY, Conn., Jan. 06, 2020 (GLOBE NEWSWIRE) -- **FuelCell Energy, Inc.** (Nasdaq: FCEL), a global leader in delivering clean, innovative and affordable fuel cell solutions, is providing an update on the development and successful launch of production stack modules with extended life. As previously reported, the company transitioned production from its five-year stack design to its seven-year stack design in the fourth quarter of fiscal year 2018. This transition followed an innovation effort focusing on improving the stability of the core cell components as well as improving overall stack and stack module designs. The seven year carbonate fuel cell stack life improvement was achieved with less than 5% increase in the cost of the stack module.

The life extension effort was a key focus of the company's Internal R&D efforts delivering on the transition. The effort was also partially supported by the US Department of Energy through the Smart Matrix program (Contract Number: DE-EE0006606) funded by the office of Energy Efficiency and Renewable Energy. The program included extensive design verification with accelerated testing of cell components, cells, and stacks in the company's

Danbury, CT laboratory facilities.

One year prior to the production transition, a prototype 4-stack module was manufactured and placed in operation at a customer site as part of the design verification program. The stable performance of the stacks in that module – along with the successful completion of various cell and stack test milestones – verified that transitioning to the new seven year design was a go for the company.

As of this update, that first prototype module has been operating for two years, and the first modules built after the production transition to the seven-year design have been operating for one year. Monitored parameters such as cell voltages and temperatures are trending according to seven-year life expectations.

This extension of stack life is extremely significant in terms of power plant operating costs. Module restack costs make up approximately half of power plant non-fuel operating cost. At 90% capacity factor, a 1.4MW stack module with 5-year life will deliver 55.2 GWh of energy before stack replacement is needed, while a seven-year module will deliver 77.3 GWh, or 40% more energy, for nearly the same capital cost - a module lifetime output unmatched in the fuel cell industry. The life extension effectively reduces the stack replacement component of operating cost by approximately 40%.

The successful development and launch of the seven-year stack module program further highlights the company's rich innovation history and focus on continuous improvement to drive value for our customers and our shareholders. Further stack performance and life enhancements are expected from internally and externally funded R&D programs currently in progress at FuelCell Energy.

#### Cautionary Language

This news release contains forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including, without limitation, statements with respect to the Company's anticipated financial results and statements regarding the Company's plans and expectations regarding the continuing development, commercialization and financing of its fuel cell technology and business plans. All forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Factors that could cause such a difference include, without limitation, changes to projected deliveries and order flow, changes to production rate and product costs, general risks associated with product development, manufacturing, changes in the regulatory environment, customer strategies, unanticipated manufacturing issues that impact power plant performance, changes in critical accounting policies, potential volatility of energy prices, rapid technological change, competition, and the Company's ability to achieve its sales plans and cost reduction targets, as well as other risks set forth in the Company's filings with the Securities and Exchange Commission. The forward-looking statements contained herein speak only as of the date of this press release. The Company expressly disclaims any obligation or undertaking to release publicly any updates or

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#### About FuelCell Energy

FuelCell Energy, Inc. (NASDAQ: FCEL) delivers efficient, affordable and clean solutions for the supply, recovery and storage of energy. We design, manufacture, undertake project development of, install, operate and maintain megawatt-scale fuel cell systems, serving utilities and 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 in designing, manufacturing, installing, operating and maintaining environmentally responsible fuel cell power solutions. Visit us online at [www.fuelcellenergy.com](http://www.fuelcellenergy.com) and follow us on Twitter [@FuelCell\\_Energy](https://twitter.com/FuelCell_Energy).

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