NEWS RELEASE

FuelCell Energy Celebrates National Hydrogen and Fuel Cell Day: Providing Hydrogen for Transportation, Delivering Long-Duration Energy Storage and Carbon Capture Through its Advanced Technologies Programs

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- Advancing Distributed Hydrogen – Will provide Toyota the distributed green hydrogen needed at the Port of Long Beach, California to accelerate the adoption of fuel cell car and truck transportation, improving air quality in the region.
- Ad vancing Electrolysis and Long Duration Energy Storage – Working to commercialize solid oxide hydrogen generation, storage, and power generation platform.
- Advancing Climate Change Mitigation – Developing transformative carbon capture solutions leveraging carbonate fuel cell technology to capture carbon while producing power.

DANBURY, Conn., Oct. 08, 2020 (GLOBE NEWSWIRE) -- FuelCell Energy, Inc. (Nasdaq: FCEL) -- a global leader in fuel cell technology – with a purpose of utilizing its proprietary, state-of-the-art fuel cell platforms to enable a world empowered by clean energy – today, as part of celebrating National Hydrogen and Fuel Cell Day in the United States, provides an update on its various Advanced Technologies programs. FuelCell Energy began researching and formulating its platform solutions in 1969, and has produced well over 10 million-megawatt hours of clean electricity since commercializing its first platform 17 years ago.

The energy sector is undergoing an unprecedented global transformation as part of the push to decarbonize. Meeting carbon goals set by companies, states, and countries worldwide will require a multidimensional strategy and commitment from all participants across all energy sectors. FuelCell Energy is uniquely positioned to support

the rapid growth associated with the hydrogen economy, by not only leveraging its proven carbonate fuel cell technology that is capable of producing both electricity and hydrogen while capturing carbon, but also through commercialization of its SureSource Storage solid oxide platform, anticipated to offer industry leading efficiencies in the production of renewable hydrogen.

Leveraging five decades of research and development expertise, FuelCell Energy has evolved its SureSource carbonate fuel cell technology to focus on hydrogen as a product. Our SureSource carbonate fuel cells extract hydrogen from biogas or natural gas through a clean reforming reaction with water that occurs in the stacks' fuel electrodes. This local production of hydrogen is unique and highly efficient, as key elements needed by the reforming reaction – heat and water – are byproducts of the already occurring SureSource fuel cell reactions.

Distributed Hydrogen:

SureSource Hydrogen systems are modified to produce extra hydrogen, which is then extracted from the system and purified for a wide range of other uses. A standard SureSource Hydrogen system generates approximately 2.35 MW of electricity and 1.2 tons of hydrogen per day, enough electricity to supply approximately 2,350 average-sized homes and hydrogen meet the daily driving needs of nearly 1,500 fuel cell vehicles.

Electrolysis and Long Duration Energy Storage to Transform the Grid:

FuelCell Energy's solid oxide fuel cells are capable of electrolysis in addition to power generation. Electrolysis is the opposite of fuel cell power generation: instead of making power and water from fuel and oxygen, electrolysis cells make hydrogen and oxygen from water and power. Supporting a long-duration storage application, FuelCell Energy's solid oxide fuel cells can operate in electrolysis mode during the charge cycle, using renewable and other delivered power from the grid to produce hydrogen, which can be stored for later use.

During the discharge cycle, the stored hydrogen is consumed in the fuel cells in power generation mode, returning power to the grid for consumption as needed, particularly when other power resources like wind and solar are not producing electricity. Storage capacity is easily expanded by adding additional hydrogen storage tanks or storage caverns, which enables a low cost and scalable approach for clean energy storage. Long duration electricity storage is a growing need given the increasing penetration of intermittent renewable sources of solar and wind.

Conventional electrolysis systems based on polymer membrane or alkaline electrolyte cells operate near ambient temperature and convert water to hydrogen with electrical efficiency generally ranging 60% to 65%. FuelCell Energy's solid oxide electrolysis platform operates at much higher efficiency, producing more hydrogen for a given amount of power input. Under some conditions, the cells can be operated at or above 100% electrical efficiency, as long as thermal energy is supplied to the stack to maintain thermal balance.

Climate Change Mitigation – Carbon Capture:

In the SureSource Capture application, instead of ambient air, exhaust flue gas containing carbon dioxide can be routed to the air electrodes of the fuel cell. Those carbon dioxide molecules are transferred to the fuel electrodes, where carbon dioxide is concentrated allowing for easy removal and purification. Carbonate fuel cells are the only known fuel cell technology that can be utilized to capture carbon dioxide from an external source. Additionally, nitrogen oxides in the flue gas (an ozone precursor pollutant) will be largely destroyed as the gas flows through the fuel cell.

FuelCell Energy's proprietary SureSource Capture platform produces power while capturing carbon dioxide, unlike other carbon capture applications which require power to operate.

FuelCell Energy's Advanced Technologies programs are designed to assist in the mitigation of climate change and improve air quality. From the production of hydrogen for vehicle fueling, industrial applications, or power generation to concentrating carbon dioxide from coal plants, natural gas fired power plants and industrial applications, to enabling long duration energy storage through electrolysis, FuelCell Energy's clean fuel cell technology is poised to make meaningful changes to the energy landscape.

Forward-Looking Statements

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 its business plans and strategies. 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, ability to access certain markets, unanticipated manufacturing issues that impact power plant performance, changes in critical accounting policies, access to and ability to raise capital and attract financing, potential volatility of energy prices, rapid technological change, competition, the Company's ability to successfully implement its new business strategies and achieve its goals, the Company's ability to achieve its sales plans and cost reduction targets, changes by the U.S. Small Business Administration or other governmental authorities to, or with respect to the implementation or interpretation of, the Coronavirus Aid, Relief, and Economic Security Act, the Payroll Protection Program or related administrative matters, and concerns with, threats of, or the consequences of, pandemics, contagious diseases or health epidemics, including the novel coronavirus, and resulting supply chain disruptions,

shifts in clean energy demand, impacts to customers' capital budgets and investment plans, impacts to the Company's project schedules, impacts to the Company's ability to service existing projects, and impacts on the demand for the Company's products, 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 revisions to any such statement to reflect any change in the Company's expectations or any change in events, conditions or circumstances on which any such statement is based.

About FuelCell Energy

FuelCell Energy, Inc. (NASDAQ: FCEL) is a global leader in developing environmentally responsible distributed baseload power solutions through our proprietary, molten-carbonate fuel cell technology. We develop turn-key distributed power generation solutions and operate and provide comprehensive service for the life of the power plant. We are working to expand the proprietary technologies that we have developed over the past five decades into new products, applications, markets and geographies. Our mission and purpose remains to utilize our proprietary, state-of-the-art fuel cell platforms to reduce the global environmental footprint of baseload power generation by providing environmentally responsible solutions for reliable electrical power, hot water, steam, chilling, distributed hydrogen, microgrid applications, electrolysis, long-duration hydrogen-based energy storage and carbon capture and, in so doing, drive demand for our products and services, thus realizing positive stockholder returns. Our fuel cell solution is a clean, efficient alternative to traditional combustion-based power generation and is complementary to an energy mix consisting of intermittent sources of energy, such as solar and wind turbines. Our systems answer the needs of diverse customers across several markets, including utility companies, municipalities, universities, hospitals, government entities and a variety of industrial and commercial enterprises. We provide solutions for various applications, including utility-scale distributed generation, on-site power generation and combined heat and power, with the differentiating ability to do so utilizing multiple sources of fuel including natural gas, renewable biogas (i.e., landfill gas, anaerobic digester gas), propane and various blends of such fuels. Our multi-fuel source capability is significantly enhanced by our proprietary gas-clean-up skid.

For more information please visit **www.fuelcellenergy.com**

Investor Relations Contact:
FuelCell Energy, Inc.
ir@fce.com

+1 203-205-2491

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