

## FuelCell Energy and ExxonMobil Announce Location for Fuel Cell Carbon Capture Pilot Plant

- James M. Barry Electric Generating Station to host multi-megawatt fuel cell system
- Carbon capture to be demonstrated from natural gas and coal power generation under FuelCell Energy agreements with ExxonMobil and the U.S. Dept. of Energy
- Pilot results to inform development of standalone facility for larger scale testing

DANBURY, Conn.--(BUSINESS WIRE)-- <u>FuelCell Energy</u>, <u>Inc.</u> (Nasdaq: FCEL) and <u>ExxonMobil</u> (NYSE: XOM) announced today the selection of a location to test novel fuel cell carbon capture technology under development by the companies.

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The James M. Barry Electric Generating Station, a 2.7 gigawatt mixed-use coal and gas-fired power plant operated by <u>Southern Company</u> (NYSE: SO) subsidiary Alabama Power, will host pilot plant tests of the technology, which uses carbonate fuel cells to concentrate and capture carbon dioxide streams from power plants. The tests will demonstrate carbon capture from natural gas-fired power generation under an agreement between FuelCell Energy and ExxonMobil <u>announced</u> in May, and from coal-fired power generation under a previously announced agreement between FuelCell Energy and the U.S. Dept. of Energy.

This fuel cell carbon capture solution could substantially reduce costs and lead to a more economical pathway toward large-scale carbon capture and sequestration globally.

"The fuel cell carbon capture solution we are advancing with ExxonMobil could be a game-changer in affordably reducing carbon dioxide emissions from coal and gas-fired power plants globally," said Chip Bottone, president and chief executive officer of FuelCell Energy, Inc. "The carbonate fuel cell solution uses a proven global platform to generate power while capturing carbon dioxide."

Vijay Swarup, vice president for research and development at ExxonMobil Research and Engineering Company, said ExxonMobil scientists recognized an opportunity to pursue the novel approach to use carbonate fuel cells at natural gas power plants. Current carbon capture processes consume energy, which increases costs. But carbonate fuel cells generate electricity and hydrogen while capturing and concentrating carbon dioxide streams, which will reduce the cost of carbon capture.

"The world's growing need for electricity makes it critical to continue finding affordable, scalable ways to reduce carbon dioxide emissions from power plants to mitigate the risk of

climate change," said Swarup. "We're excited about the potential of this novel approach as we continue to work on the scientific fundamentals in the lab and look to prove their viability in the field."

The pilot plant tests will use <u>FuelCell Energy's commercial DFC3000</u>® carbonate fuel cell power system to concentrate and capture a portion of the carbon dioxide emissions from the power plant as part of the fuel cells' power generation process. Flue gas from power generation will be directed into the fuel cells' air intake system where it is combined with natural gas. The fuel cells concentrate and capture carbon dioxide and also eliminate about 70 percent of smog-producing nitrogen oxide from coal, supporting federal and local clean air initiatives. Following capture, carbon dioxide will be compressed and cooled utilizing standard chilling equipment. Installation of the fuel cell plant will begin after completion of engineering studies that are already under way.

Results from the natural gas pilot test will help guide engineering studies for potential construction of a standalone pilot plant to test the technology at a larger scale, under FuelCell Energy's existing agreement with ExxonMobil.

The Barry generating station is located near Mobile in Bucks, Alabama, and has 2,657 megawatt total generating capacity from six units fueled by coal and natural gas. Southern Company and Alabama Power have previously conducted carbon capture research at the location and at another power plant in Wilsonville, Alabama, near Birmingham.

ExxonMobil is a global leader in <u>carbon capture and sequestration</u>, and captured approximately 6.9 million metric tons of carbon dioxide in 2015 for sequestration, the equivalent of eliminating the annual greenhouse gas emissions of more than 1 million passenger vehicles. Since 2000, ExxonMobil has spent nearly \$7 billion on technology to reduce greenhouse gas emissions, including on energy efficiency, cogeneration, flare reduction, carbon capture and sequestration, and research on lower-emission energy solutions.

According to 2015 data compiled by the U.S. Energy Information Administration, <u>two-thirds of the 4 trillion kilowatt-hours of electricity generated in the United States originated from coal and natural gas.</u>

## About FuelCell Energy

Direct FuelCell<sup>®</sup> power plants are generating ultra-clean, efficient and reliable power on three continents, affordably providing continuous distributed power generation to a variety of industries including utilities, commercial and municipal customers. The Company's power plants have generated billions of kilowatt hours of ultra-clean power using a wide variety of fuels including renewable biogas from wastewater treatment and food processing, as well as clean natural gas. For additional information, please visit <a href="https://www.fuelcellenergy.com">www.fuelcellenergy.com</a> and follow us on Twitter.

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## About ExxonMobil

ExxonMobil, the largest publicly traded international oil and gas company, uses technology and innovation to help meet the world's growing energy needs. ExxonMobil holds an industry-leading inventory of resources, is among the largest refiners and marketers of petroleum products and its chemical company is one of the largest in the world. For more information, visit www.exxonmobil.com or follow us on Twitter www.twitter.com/exxonmobil.

<u>Cautionary Statement</u>: Statements of future events or conditions in this release are forward-looking statements. Actual future results, including project plans and timing and the impact of new technologies, could vary depending on the outcome of further research and testing; the development and competitiveness of alternative technologies; the ability to scale pilot projects on a cost-effective basis; political and regulatory developments; and other factors discussed in this release and under the heading "Factors Affecting Future Results" on the Investors page of ExxonMobil's website at exxonmobil.com.

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