Pacific Northwest
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PNNL-35385

Dual Mode Intermediate Temperature Fuel Cell: Liquid Fuels and Electricity (Abstract)

CRADA #351 (PNNL #66408)

April 2024

Olga A. Marina

FuelCell Energy, Inc. (FCE)

U.S. DEPARTMENT OF ENERGY

Prepared for the U.S. Department of Energy
under Contract DE-AC05-76RL01830

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Abstract

FuelCell Energy, Inc. (FCE) in collaboration with Pacific Northwest National Laboratory (PNNL), The University of Connecticut (UCONN), The Energy and Environmental Research Center at The University of North Dakota (EERC-UND), and Massachusetts Institute of Technology (MIT), has entered into a co-operative agreement with the U.S. Department of Energy Advanced Research Project Agency – Energy (ARPA-E), agreement number DE-AR0000503, to develop an electrochemical device for conversion of methane gas to a usable liquid product, such as methanol or formaldehyde.

The objective of this CRADA is to develop the anode electro-catalyst for the aforementioned electrochemical cell during Q1-Q8. PNNL will utilize thermodynamic modeling, batch-mode reactor screening and button-scale electrochemical testing to develop this anode.

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