

**Bipartisan Infrastructure Law: Clean Hydrogen Electrolysis,
Manufacturing, and Recycling FOA Selections
FOA # DE-FOA-0002922**

Selectee Name	Location (City, State)	Project Title	Federal Share
Topic 1: Low-Cost, High-Throughput Electrolyzer Manufacturing			
Cummins Electrified Power NA Inc	Fridley, MN	Multilayer Membrane-Electrode-Subgasket-PTL Assembly (MESPA) for Facile Assembly of PEM Electrolysis Stacks	\$17,900,000
Electric Hydrogen Co.	Devens, MA	Manufacturing Innovations for Scaling Green H2 to Fossil-parity	\$46,300,000
NexTech Materials, Ltd.	Lewis Center, OH	Scaleup and Demonstration of High Temperature Electrolysis Technology	\$30,000,000
OxEon Energy	North Salt Lake, UT	SOEC Manufacturing Systems Automation for High Throughput at Low Cost	\$36,300,000
Plug Power Inc	West Henrietta, NY	Gigawatt Scale Electrolyzer Component Manufacturing and Stack Assembly	\$45,700,000
Proton Energy Systems d/b/a Nel Hydrogen US	Plymouth, MI	Fully Automated Production Proton Exchange Membrane Electrolyzers to Achieve HydrogenShot	\$50,000,000
thyssenkrupp nucera USA Inc.	TBA, Texas	ScalumGW	\$50,000,000
Verdagy, Inc.	Newark, CA	Coils-to-Cells Low-Cost Electrolyzer Cell Manufacturing & Domestic Supply Chain	\$39,600,000
Topic 2: Electrolyzer Component and Supply Chain Development			
ACS Industries, Inc.	Lincoln, RI	High-Throughput Anode Packs with Advanced Porous Transport Layers	\$9,900,000
eSpin Technologies, Inc.	Chattanooga, TN	Nanofiber-based Separator for Liquid Alkaline Electrolyzer	\$6,300,000
HighT-Tech LLC	College Park, MD	Ultrafast High-Temperature Sintering (UHS) for Continuous Manufacturing of High-Performance Oxygen Conducting Solid Oxide Electrolysis Cells	\$6,700,000
Ionomr Innovations, Inc.	Rochester, NY	Alkaline stable, non-porous, anion exchange ionomer and membrane separator scale-up for liquid alkaline electrolysis	\$6,100,000
Mott Corporation	Farmington, CT	Advanced Porous Transport Layer Design and Manufacturing for PEM Electrolyzers	\$10,000,000

Pajarito Powder LLC	Albuquerque, NM	Oxygen Evolution Reaction Catalyst Scale-Up and Validation for Proton Exchange Membrane Water Electrolyzers	\$10,000,000
Power to Hydrogen, LLC	Columbus, OH	Advanced Electrolysis Cell Components Designed for Assembly	\$6,600,000
PPG Industries, Inc.	Pittsburgh, PA	Precious-Metal Free Coatings for PPG PTL Assemblies	\$6,100,000
The Chemours Company	Newark, DE	Durable, High-Performance Membranes for Proton Exchange Membrane Water Electrolysis	\$10,000,000
West Virginia University Research Corporation	Morgantown, WV	Microwave Enhanced Methods and Kiln Designs for Rapid, Energy-Efficient, and Cost-Effective Thermal Processing of Solid-Oxide Electrolysis Cells	\$9,300,000
Topic 3a – Advanced Catalysts, Ionomers, and Membranes for PEM Electrolyzers			
3M Company	St. Paul, MN	Durable, High Specific Power OER Catalyst/Electrodes for PEM Water Electrolyzers	\$5,000,000
Board of Trustees of the Leland Stanford Junior University	Stanford, CA	Towards Scalable Manufacture of Low Iridium Loading Catalyst for Durable PEM Water Electrolyzers (PEM-WE)	\$3,000,000
Plug Power Inc	Concord, MA	Advanced PEM Electrolyzer Membrane for Hydrogen Crossover Mitigation	\$3,200,000
Tetramer Technologies, LLC	Pendleton, SC	High Performance non-PFSA Membranes for PEM Electrolyzers	\$5,000,000
Topic 3b – Advanced Materials for Next-Generation Liquid Alkaline Electrolyzers			
Avium, LLC	Lawrence, KS	In Situ Separator Electrode Assembly (SEA) Formation with Non-Platinum Group Metal Catalysts for High Current Density Liquid Alkaline Electrolysis	\$5,000,000
W. L. Gore & Associates, Inc.	Elkton, MD	Durable, Ultra-Thin Diaphragms for Liquid Alkaline Water Electrolysis	\$4,800,000
Topic 3c – Advanced Catalysts and Membranes for AEM Electrolyzers			
Ecoelectro, Inc.	Ithaca, NY	Alkaline Stable Organic Cations Incorporated into Rigid Polymer Backbones for Enhanced Mechanical Properties of Thin Films	\$3,600,000
Georgia Tech Research Corporation	Atlanta, GA	Durable, Low-Cost, Manufacturable AEM Electrolyzer Components	\$3,600,000

Nel Hydrogen	Wallingford, CT	Low-Cost, Clean AEM Electrolysis through Transport Property Understanding, Manufacturing Scale-up, and Optimization of Electrodes and Their Interfaces	\$4,900,000
University of Oregon	Eugene, OR	Advanced Electrodes for Stable, High-Performance, Alkaline-Exchange-Membrane Electrolyzers without Supporting Electrolyte	\$4,700,000
Topic 3d – Engineered Materials and Interfaces for O-SOEC			
Boston University	Boston, MA	Highly Stable Engineered Oxygen and Fuel Electrodes for Solid Oxide Electrolysis Cells	\$5,000,000
Chemtronergy LLC	Salt Lake City, UT	Highly-reliable Ruggedized Solid-Oxide Steam Electrolyzer	\$2,600,000
Clemson University	Anderson, SC	Accelerated discovery, design, and laser convergent manufacturing of low-temperature O-SOEC	\$4,900,000
University of North Dakota Energy & Environmental Research Center	Grand Forks, ND	Highly Efficient and Durable Low-Temperature O-SOEC Based on Engineered Ceria Electrolyte	\$4,200,000
Topic 3e – Advanced Materials for P-SOEC			
Colorado School of Mines	Golden, CO	Advanced materials and operating conditions for intermediate-temperature protonic-ceramic steam electrolysis (P-SOEC)	\$3,000,000
Georgia Tech Research Corporation	Atlanta, GA	Advanced Materials for High-Performance and Durable SOECs Based on Proton Conductors	\$2,400,000
University of Oklahoma	Norman, OK	Development of Readily Manufactured and Interface Engineered Proton-Conducting Solid Oxide Electrolysis Cells with High Efficiency and Durability	\$3,100,000
West Virginia University Research Corporation	Morgantown, WV	Proton-Conducting-SOEC with Rational Steam Electrode Design for Low-Temperature, High-Efficiency, and High-Durability Hydrogen Generation	\$4,500,000
Topic 4: Fuel Cell Membrane Electrode Assembly & Stack Manufacturing & Automation			
Ballard Power Systems Inc	Dallas, TX	Ballard PEM Electrode Assembly Manufacturing and Automated Stack Assembly US Operation	\$30,000,000
General Motors LLC	Pontiac, MI	High Speed Fuel Cell Stack Manufacturing	\$30,000,000

Nuvera Fuel Cells, LLC	Billerica, MA	Integrated Automation for High Volume PEM Fuel Cell Stacking and Acceptance Testing in Heavy-Duty Motive Applications	\$30,000,000
Plug Power Inc	West Henrietta, NY	High Volume Fuel Cell Manufacturing, Stack Assembly, and Final Test	\$30,000,000
Robert Bosch LLC	Anderson, SC	Industrialization of MEA and Stack Assembly for North American Market	\$30,000,000
Topic 5a: Gas Diffusion Layers			
AvCarb Material Solutions	Lowell, MA	Establishment of a Vertically Integrated Domestic Manufacturing Process for Production of Substrates Needed for Manufacture of Gas Diffusion Layers	\$10,000,000
Materic LLC	Baltimore, MD	SPIN into Power: Scaled Production of Integrated Nonwoven Gas Diffusion Layers for Fuel Cells	\$10,000,000
Topic 5b: Catalysts			
Cabot Corporation	Billerica, MA	Scalable, innovative manufacturing process for novel carbon supports for metal catalysts for MDV/HDV PEM fuel cells	\$5,000,000
Pajarito Powder LLC	Albuquerque, NM	High Volume Production and Validation of Advanced Pt and Pt Alloy Catalysts on Engineered Carbon Supports	\$10,000,000
pH Matter, LLC	Columbus, OH	U.S.-Based Advanced Catalyst Manufacturing	\$7,200,000
Topic 5c: Bipolar Plates			
Ballard Power Systems Inc.	Dallas, TX	Ballard's Next Generation Flexible Graphite Bipolar Plate Manufacturing Line	\$10,000,000
Robert Bosch LLC	Anderson, SC	Bosch Industrialization of High-Volume BPP Processes for North American Market	\$10,000,000
Saueressig North America Inc.	Burlington, NC	High Speed Bipolar Plate Production System	\$9,900,000
Topic 5d: Non-PFSA Membranes			
Ionomr Innovations, Inc.	Rochester, NY	Advanced hydrocarbon proton exchange ionomer and membrane scale-up and electrode optimization for heavy duty fuel cells	\$5,000,000
Robert Bosch LLC	Sunnyvale, CA	HyPER: Hydrocarbon Polymer Electrolyte Realization	\$5,000,000
Topic 6: Recovery and Recycling Consortium			
American Institute of Chemical Engineers	New York, NY	H2CIRC	\$50,000,000