Dear Chairman Simpson and Ranking Member Kaptur:

As Members with a strong interest in ensuring our nation’s future energy security, we thank the subcommittee for continuing to fund several key Department of Energy (DOE) research and innovation programs and request that these programs are given high priority as you consider the Fiscal Year (FY) 2019 Energy and Water Appropriations bill. We are specifically writing to support three complementary approaches to tackling the critical energy innovation challenges before us: the Advanced Research Projects Agency-Energy (ARPA-E) program, Energy Innovation Hubs, and Energy Frontier Research Centers (EFRCs).

As you know, DOE plays an important role in the development and incubation of clean energy innovation that benefits our nation and the economy. DOE programs such as these support scientific research and technological advances at multiple stages of the innovation pipeline. These programs represent a robust portfolio of energy R&D investments, each of which complements the others to maximize our nation’s ability to achieve energy breakthroughs as quickly as possible. These programs, outlined below, deserve your highest consideration.

- **ARPA-E:** $346.5 million
- **Energy Innovation Hubs:** $108.4 million
- **EFRCs:** $110 million

**Advanced Research Projects Agency-Energy (ARPA-E):** With significant federal investments, the DOD-funded Defense Advanced Research Projects Agency (DARPA) has been responsible for some of the most innovative technological breakthroughs of our time, from Global Positioning Systems (GPS) to the Internet. ARPA-E was created to replicate the successful DARPA model by incentivizing researchers to develop promising research into game-changing technologies that can meet our future energy needs. Despite the potential for a huge payoff, the private sector does not invest sufficiently in this kind of “high-risk, high-reward” energy research. Supporting ARPA-E is a bet on Americans’ proven ability to turn creative ideas into market-creating, job-growing businesses. Since 2009, 136 of these projects have attracted more than $2.6 billion in private sector follow-on funding. For FY 2019, we request $346.5 million to enable ARPA-E to continue to invest in innovative ideas.
Energy Innovation Hubs (Hubs): The Hubs are large, integrated research centers involving multiple disciplines, investigators, and institutions with a focus on bridging the gap between scientific breakthroughs and industrial commercialization. The Hubs use a centralized, mission-oriented research approach like that employed by the Manhattan Project or at AT&T’s Bell Laboratories. To date, DOE has established and Congress has supported five hubs focusing on: Fuels from Sunlight; Modeling and Simulation for Nuclear Reactors; Batteries and Energy Storage; Critical Materials; and Desalination. For FY 2019, we request $108.4 million to fully fund the five hubs.

Energy Frontier Research Centers (EFRCs): EFRCs consist of small groups of researchers focused on the fundamental science that underlies roadblocks to revolutionary energy technologies, such as interfacial chemistry for solar energy conversion and electrical energy storage. Unlike the Hubs and ARPA-E, these centers specifically focus on long-term chemical and materials science for energy applications. The centers also play a significant role in training graduate students in scientific disciplines central to overcoming energy-related grand challenges. After 2016, there are now 36 EFRCs with related research activities being conducted in 35 states and Washington, DC. For FY 2019, we request $110 million to support these centers.

America’s innovation history is built on a foundation of robust federal investment in fundamental scientific research. At the same time, the public sector has a deep history of working hand-in-hand with the private sector to bring the fruits of this research to market, address market failures, provide needed expertise, and raise capital for high-payoff, though riskier, projects in which industry would not otherwise invest. Without such partnerships, the stories of the transcontinental railroad, the aviation sector, and biotechnology industries would be dramatically different. As in these past projects, the government has a critical role to play in helping to support and foster the new ideas that will serve as the foundation for the nation’s future energy economy.

Thank you for your consideration of these important DOE innovation programs.

Sincerely,

Donald S. Beyer Jr.

Carlos Curbelo

Anna G. Eshoo

Brian Fitzpatrick

Elizabeth H. Esty

Patrick Meehan
Bobby L. Rush

Salud O. Carbajal

Paul D. Tonko

Peter. A. DeFazio

John K. Delaney

James P. McGovern

Mark Takano

Ruben J. Kihuen

Elise Stefanik

Tom Marino

Ryan A. Costello

Lee Zeldin

Jan Schakowsky

Gwen S. Moore

Adam B. Schiff

Daniel W. Lipinski
Michael E. Capuano
Gerald E. Connolly
Daniel T. Kildee
Alan Lowenthal
Bill Pascrell, Jr.
Jamie Raskin
Scott Peters
Jim Langevin
Barbara Lee
Nanette Diaz Barragan
Jerry McNerney
Suzanne Bonamici
Judy Chu
Peter Welch
Alcee L. Hastings
Eleanor Holmes Norton
Eliot L. Engel

Chellie Pingree

Danny K. Davis

Eric Swalwell

Donald M. Payne, Jr.

Raul M. Grijalva

Louise M. Slaughter

Diana DeGette

Mike Thompson

Darren Soto

Ted Deutch

Ro Khanna

Sean Patrick Maloney

John Sarbanes

Dave Loebsack

Alma S. Adams