



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY

Opening Statement

Chairwoman Eddie Bernice Johnson (D-TX)

Energy Subcommittee Markup of:

H.R. 4091, the ARPA-E Reauthorization Act of 2019

H.R. 4230, the Clean Industrial Technology Act of 2019

Wednesday, September 11, 2019

I am pleased that we are now considering *H.R. 4091*, the bipartisan *ARPA-E Reauthorization Act of 2019*, led by myself and Chairman Lamb.

Even though the agency is still relatively young, ARPA-E has already demonstrated incredible success in advancing high-risk, high-reward energy technology solutions that neither the public nor the private sector had been willing or able to support in the past. Industry leaders like Bill Gates, Chad Holliday, and Norm Augustine have repeatedly called for significantly increasing this agency's budget given the unique role that it is now playing in our energy innovation pipeline.

ARPA-E's impressive track record now includes over \$2.9 billion in private sector follow-on funding for a group of 145 ARPA-E projects since the agency's founding in 2009. Equally notable, 76 projects have formed new companies, 131 projects have shown enough promise to result in partnerships with other government agencies, and ARPA-E projects have led to 2,489 peer-reviewed journal articles and 346 U.S. patents.

Unfortunately, ARPA-E has only been able to support about 1% of the proposals submitted for its open funding opportunities, and 12% of the proposals submitted for its focused programs, even though the number of promising, high quality proposals that the agency has received is many times higher.

That is why I am proud to sponsor *H.R. 4091, the ARPA-E Reauthorization Act of 2019*, which authorizes substantial growth in support for the agency over the next five years. This growth is consistent with the National Academies' original recommendations for establishing and supporting ARPA-E, as well as more recent recommendations from well-respected bipartisan and nonpartisan institutions such as the Bipartisan Policy Center's American Energy Innovation Council, the Energy Futures Initiative, and the Information Technology and Innovation Foundation.

I'd also note that in its review of the program released in 2017, the National Academies found that a significant increase in funding would be necessary for ARPA-E to be able to support the scale-up of several particularly promising technologies that were previously supported by the agency. But many of these new approaches are still too risky to be supported by the private sector alone, and too often other DOE programs remain ill-suited to steward them.

By authorizing these resources, this bill ensures that ARPA-E is able to fully pursue the development and demonstration of truly transformational clean energy technologies, just as DARPA, the agency upon which ARPA-E is modeled, has been able to demonstrate time and again for defense applications.

This bill also authorizes ARPA-E to better address DOE's significant nuclear waste clean-up and management issues, for which the Department currently spends billions of dollars every year trying to manage with current technologies. And it allows ARPA-E to pursue projects that improve the resilience, reliability, and security of our energy infrastructure.

The *ARPA-E Reauthorization Act of 2019* incorporates extensive feedback from stakeholders, including input from a hearing on ARPA-E this Subcommittee held on February 26th. It also incorporates constructive language from a bill that I cosponsored with my friend, Ranking Member Lucas, last year.

Just to name a few of the bill's many supporters, it is endorsed by the **U.S. Chamber of Commerce**, the **National Association of Manufacturers**, the **Council on Competitiveness**, the **Bipartisan Policy Center**, the **Association of American Universities**, the **Association of Public & Land-grant Universities**, the **Nuclear Energy Institute**, the **American Gas Association**, the **Energy Storage Association**, the **Carbon Utilization Research Council**, the **American Council on Renewable Energy**, the **Natural Resources Defense Council**, and the **Energy Sciences Coalition**. I'll submit the full list of supporters for the record.

ARPA-E's unique work is one of the best tools we have to produce the innovation needed to maintain our international competitiveness and transition ourselves to a clean energy future. If we are truly serious about using innovation to address the increasing dangers of climate change, then we must provide ARPA-E the resources to reach its immense potential. Given this bill's crucial mission, along with its deep support from industrial, academic, scientific, and environmental organizations, I hope that each of my colleagues on both sides of the aisle will strongly support advancing H.R. 4091 this morning.

With that, I yield back.