



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

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Floor Statement

**Statement by Chairwoman Eddie Bernice Johnson (D-TX)**  
on H.R. 4091, *ARPA-E Reauthorization Act of 2019*

Today I am very pleased to introduce the ARPA-E Reauthorization Act of 2019 with my colleague, Mr. Lamb, who is the Chairman of the Subcommittee on Energy.

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 and Norm Augustine have repeatedly called for tripling 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 and 131 projects have shown enough promise to result in partnerships with other government agencies for further development. Moreover, as of March 2019, ARPA-E projects have helped advance scientific understanding and technological innovation through 2,489 peer-reviewed journal articles and 346 patents issued by the U.S. Patent and Trademark Office.

Yet to date, 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.

This is why the ARPA-E Reauthorization Act of 2019 authorizes substantial growth in funding for the agency over the next five years. This growth is consistent with the original recommendations of the National Academies for establishing and supporting ARPA-E in its seminal *Rising Above the Gathering Storm* report, as well as more recent strong recommendations from well-respected bipartisan and nonpartisan institutions such as the Bipartisan Policy Center's American Energy Innovation Council, the Information Technology and Innovation Foundation, and the Energy Futures Initiative.

I'd also note that in its review of the program released in June 2017, the National Academies found that a substantial increase in funding would be necessary for ARPA-E to be able to

sufficiently support the scale-up of particularly promising technologies, such as advanced technologies for energy storage and power electronics, 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.

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

Other improvements in this bill include explicit authorization for ARPA-E to better address DOE's significant nuclear waste clean-up and management issues, for which the Department currently spends several billion dollars every year attempting to manage with current technologies. And it includes authorization for ARPA-E to support projects to improve the resilience, reliability, and security of our energy infrastructure.

The ARPA-E Reauthorization Act of 2019 incorporates extensive feedback from stakeholders, as well as input we received during a hearing the Committee on Science, Space, and Technology held on February 26<sup>th</sup> entitled *The Future of ARPA-E*. It also incorporates constructive language from a bill that I cosponsored with my friend, Mr. Lucas, who is now Ranking Member of the Committee, last year.

This bill is endorsed by the **U.S. Chamber of Commerce**, the **National Association of Manufacturers (NAM)**, the **Council on Competitiveness**, the **Bipartisan Policy Center (BPC)**, the **Association of American Universities (AAU)**, the **Association of Public & Land-grant Universities (APLU)**, the **Nuclear Energy Institute (NEI)**, the **American Gas Association (AGA)**, the **Energy Storage Association (ESA)**, the **Carbon Utilization Research Council (CURC)**, the **American Council on Renewable Energy (ACORE)**, the **Natural Resources Defense Council (NRDC)**, the **Environmental Defense Fund (EDF)**, the **American Council for Capital Formation (ACCF)**, **Citizens for Responsible Energy Solutions (CRES)**, **ConservAmerica**, the **Information Technology and Innovation Foundation (ITIF)**, the **Task Force on American Innovation (TFAI)**, **Environmental Entrepreneurs (E2)**, the **American Chemical Society (ACS)**, the **Optical Society of America (OSA)**, **IEEE-USA**, the **Task Force on American Innovation (TFAI)**, the **Energy Sciences Coalition (ESC)**, and the **Gas Technology Institute (GTI)**.

Given this broad and deep support from the leading industrial, academic, scientific, and environmental organizations of our nation, I look forward to advancing this bill through the Committee in the coming months. And I will continue to work with my colleagues on both sides of the aisle to build support for this critical investment in our nation's clean energy future.