

**ARPA-E Reauthorization Act of 2019**

**Bill Summary**

In the ten years since it was first established, the U.S. Department of Energy’s Advanced Research Projects Agency – Energy (ARPA-E) has demonstrated remarkable 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. ARPA-E’s track record includes over \$2.9 billion in private sector follow-on funding for a group of 145 ARPA-E projects since the agency’s founding. 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.

The bill would authorize a substantial increase in ARPA-E’s authorization level to \$750 million in FY 2024. This is based on the bipartisan agreement that was favorably reported by voice vote by the House Science, Space, and Technology Committee on October 17, 2019.

A significant increase in funding level 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.

To date, ARPA-E has only been able to support 1% of the proposals submitted for its Open Funding Opportunity Announcements, and the agency has only been able to support 12% of the proposals submitted for its Focused Funding Opportunity Announcements.

In its review of the program released in June 2017, the National Academies also 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 1) are still too risky to be supported by the private sector alone; and 2) other DOE programs are ill-suited to steward. ARPA-E recently issued an RFI (<https://arpa-e-foa.energy.gov/#FoaIdedfac257-7b02-4135-b9a9-faf83d8f0616>) to further examine these opportunities. This bill adds an annual reporting requirement on ARPA-E’s scale-up and demonstration activities, in accordance

with existing law which states that not more than 50% of its budget may be allocated for such activities. Its allocation for these activities is usually very low, and has never been more than 10%.

Another change includes an authorization for ARPA-E to support projects to improve the resilience, reliability, and security of our energy infrastructure.

*Summary of ARPA-E Impact* (see: <https://arpa-e.energy.gov/?q=site-page/arpa-e-impact>)

### **Cosponsors**

Senator Lamar Alexander (R-TN)

### **House Sponsor**

Rep. Eddie Bernice-Johnson and 33 other Cosponsors

### **Organizations Who Support the Bill**

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 Petroleum Institute (API), the Energy Storage Association (ESA), the Alliance to Save Energy (ASE), the Carbon Utilization Research Council (CURC), the American Council on Renewable Energy (ACORE), the American Gas Association (AGA), the Fusion Industry Association (FIA), the Natural Resources Defense Council (NRDC), the Environmental Defense Fund (EDF), the National Audubon Society, the American Council for Capital Formation (ACCF), Citizens for Responsible Energy Solutions (CRES), ConservAmerica, the New Democrat Coalition, the Information Technology and Innovation Foundation (ITIF), Third Way, the American Security Project (ASP), the Task Force on American Innovation (TFAI), Environmental Entrepreneurs (E2), the American Chemical Society (ACS), The Optical Society (OSA), IEEE-USA, the Energy Sciences Coalition (ESC), and the Gas Technology Institute (GTI).