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# Advanced Research Projects Agency - Energy

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**Advanced Research Projects Agency – Energy  
(\$K)**

<b>FY 2025 Enacted</b>	<b>FY 2026 Enacted</b>	<b>FY 2027 Request</b>	<b>FY 2027 Request vs FY 2026 Enacted</b>
460,000	350,000	200,292	-149,708

**Proposed Appropriation Language**

For Department of Energy expenses necessary in carrying out the activities authorized by section 5012 of the America COMPETES Act (Public Law 110–69), \$200,292,000, to remain available until expended: *Provided*, that of such amount, \$40,000,000 shall be available until September 30, 2028, for program direction.

**Mission**

ARPA-E aims to identify and promote revolutionary advances in energy, translating scientific discoveries and cutting-edge inventions into technological innovations. It will focus on technologies promoting reliable, firm power that Americans can depend on. It will also accelerate transformational technological advances in areas where industry by itself is not likely to invest due to technical and financial uncertainty.

**Overview**

The U.S. Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) was established by the America COMPETES Act of 2007 (Public Law 110–69), as amended. ARPA-E will ensure that the U.S. maintains a technological lead in developing and deploying energy technologies. ARPA-E will identify and promote revolutionary advances in energy, translating scientific discoveries and cutting-edge inventions into technological innovations. It will also accelerate transformational technological advances in areas where industry by itself is not likely to invest due to technical and financial uncertainty. ARPA-E focuses on novel early-stage energy research and development (R&D) with technology applications that can be meaningfully advanced with a small investment over a defined period of time. ARPA-E coordinates its work with DOE's basic research and applied programs and other federal research agencies to ensure work is not duplicated.

Projects that receive ARPA-E support are considered “high risk” and too early in the development process for private sector support. They are subject to strict technical and commercialization milestones intended to ensure accountability and transparency that enable rapid reprioritization of Agency funds towards only the most promising technologies. This has resulted in significant commercial interest, investment, and follow-on funding for successful technologies, amplifying the impact of the Agency’s funding decisions and accelerating progress towards achieving the Agency’s mission.

In 2027, ARPA-E will continue to fund and direct the discovery of outlier energy technologies that ensure American-made energy for all. ARPA-E’s research and development programs actively support the administration’s goal of restoring U.S. energy dominance, powering modern life, and unleashing American energy innovation to maintain America’s global competitiveness.

**Advanced Research Projects Agency - Energy  
Funding by Budget Control (\$K)**

	FY 2025 Enacted	FY 2026 Enacted	FY 2027 Request	FY 2027 Request vs FY 2026 Enacted	
				\$	%
ARPA-E Projects	420,000	310,000	160,292	-149,708	- 48%
Program Direction	40,000	40,000	40,000	-	-
<b>Total, Advanced Research Projects Agency - Energy</b>	<b>460,000</b>	<b>350,000</b>	<b>200,292</b>	<b>-149,708</b>	<b>- 43%</b>

## ARPA-E Projects

### Overview

ARPA-E identifies and supports revolutionary inventions and transformational energy advances, which requires constant evolution of its programmatic focus. This is accomplished by establishing dynamic technical programs (each lasting about three years) designed to accelerate innovation in high-potential areas. The breadth of the program portfolio that has developed over ARPA-E's lifetime addresses different parts of the energy technology space from year to year.

ARPA-E has demonstrated the efficacy of its model for accelerating high-potential, novel technical approaches to existing and emerging U.S. energy challenges. Program Directors, recruited for their technical expertise, leadership, and experience in energy issues, are given significant autonomy in identifying potential high-impact areas for R&D investment. ARPA-E's Program Directors work to develop their proposals in the context of both private sector and federally funded work in the technical space and ultimately propose focused programs designed to accelerate research and commercial development in the topic area.

As a complement to its focused technology programs, ARPA-E also supports OPEN solicitations. OPEN solicitations seek the most innovative new ideas in energy technology across the full spectrum of energy applications, allowing the Agency to support the development of important technologies that fall outside the scope of its focused programs. OPEN solicitations are released every three years and were run in 2009, 2012, 2015, 2018, 2021, and 2024. Consistent with the triennial release schedule, ARPA-E plans on releasing another OPEN solicitation in 2027.

One significant component of ARPA-E's mission is accelerating the economic impact of U.S. investments in energy R&D and advancing the commercialization readiness of successful projects is essential to achieving this goal. As project teams demonstrate success, ARPA-E's Technology-to-Market Advisors and Program Directors work closely with the teams to help identify pathways toward commercial deployment. Many of ARPA-E's alumni projects have been able to obtain follow-on funding from private investors, state agencies, and/or federal programs, and ARPA-E's maturing portfolio is offering increasing opportunities for commercialization of ARPA-E funded technologies.

Despite the level of technology 'de-risking' that projects from focused and OPEN solicitations have achieved, ARPA-E determined that further de-risking is necessary in some areas to validate technologies at a scale pertinent to investment. To this end, ARPA-E released Seeding Critical Advances for Leading Energy technologies with Untapped Potential (SCALEUP) solicitations in 2019, 2021, 2023, and 2024. SCALEUP is designed to fund successful technologies that were previously funded by ARPA-E for which the proof-of-concept R&D challenges have been addressed. Success in scaling these projects would enable industry, investors, and partners to justify substantial commitments of financial resources, personnel, production facilities, and materials to develop promising ARPA-E technologies into early commercial products. ARPA-E released a rolling SCALEUP solicitation in FY 2024 and plans to continue funding SCALEUP in FY 2027.

## Highlights of the FY 2027 Budget Request

With the FY 2027 request, ARPA-E plans to continue funding SCALEUP and release an OPEN solicitation and up to two new focused solicitations. FY 2027 solicitations will:

- Continue to fund and direct the discovery of outlier energy technologies that ensure the production of reliable, American-made energy.
- Support the Administration’s goal of restoring U.S. energy dominance through firm, baseload power; increasing the energy available to power modern life; and unleashing American energy innovation to maintain America’s global competitiveness.

### ARPA-E Projects (\$K)

	FY 2025 Enacted	FY 2026 Enacted	FY 2027 Request	FY 2027 Request vs FY 2026 Enacted	
				\$	%
ARPA-E Projects	420,000	310,000	160,292	-149,708	- 48%
<b>Total, ARPA-E Projects</b>	<b>420,000</b>	<b>310,000</b>	<b>160,292</b>	<b>-149,708</b>	<b>-48%</b>

### Explanation of Change for ARPA-E Projects

The Budget reduces funding for ARPA-E to a fiscally responsible level for high risk, high reward research advancing reliable energy technologies and other critical and emerging technologies that produce reliable, domestic power.

## Program Direction

### Overview

Program Direction enables ARPA-E to maintain and support a world-class federal workforce that supports its mission. Funding provides resources for program and project management, oversight activities, workforce management, IT support, and headquarters facilities.

### Program Direction Funding (\$K)

	FY 2025 Enacted	FY 2026 Enacted	FY 2027 Request	FY 2027 Request vs FY 2026 Enacted	
				\$	%
Salaries and Benefits	14,850	14,100	14,100	-	-
Travel	1,450	1,600	1,600	-	-
Support Services	17,100	17,130	17,130	-	-
Other Related Expenses	6,600	7,170	7,170	-	-
<b>Total, Program Direction</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	-	-
Technical Support	5,985	5,995	5,995	-	-
Management Support	11,115	11,135	11,135	-	-
<b>Total, Support Services</b>	<b>17,100</b>	<b>17,130</b>	<b>17,130</b>	-	-
Working Capital Fund	4,123	4,480	4,480	-	-
Energy Information Technology Services (EITS)	1,588	1,725	1,725	-	-
Other Services	889	966	966	-	-
<b>Total, Other Related Expenses</b>	<b>6,600</b>	<b>7,170</b>	<b>7,170</b>	-	-
Federal FTEs	54	54	54	-	-
Additional ARPA-E FTEs via IPAs <sup>1</sup>	13	9	9	-	-
<b>Total FTEs</b>	<b>67</b>	<b>63</b>	<b>63</b>	-	-

<sup>1</sup> Select ARPA-E Program Directors are hired and funded via Intergovernmental Personnel Act Agreements

**Program Direction  
Activities and Explanation of Changes  
(\$K)**

<b>FY 2026 Enacted</b>	<b>FY 2027 Request</b>	<b>Explanation of Changes FY 2027 Request vs FY 2026 Enacted</b>
<b>Program Direction</b>		
<b>40,000</b>	<b>40,000</b>	-
<i>Salaries and Benefits</i>		
<i>14,100</i>	<i>14,100</i>	-
At the FY 2026 Enacted level, ARPA-E anticipates needing up to 63 federal FTEs, inclusive of staff funded through Intergovernmental Personnel Act Agreements.	At the FY 2027 Request Level, ARPA-E anticipates needing up to 63 federal FTEs, inclusive of staff funded through Intergovernmental Personnel Act Agreements.	No change.
<i>Travel</i>		
<i>1,600</i>	<i>1,600</i>	-
At the FY 2026 Enacted level, ARPA-E Program Directors and Technology-to-Market advisers will visit performers regularly as part of ARPA-E's hands-on engagement.	At the FY 2027 Request level, ARPA-E Program Directors and Technology-to-Market advisers will visit performers regularly as part of ARPA-E's hands-on engagement.	No change.
<i>Support Services</i>		
<i>14,100</i>	<i>14,100</i>	-
At the FY 2026 Enacted level, ARPA-E anticipates continuing the use of support service contractors to support ARPA-E federal staff in the management and oversight of projects and other required functions.	At the FY 2027 Request level, ARPA-E anticipates continuing the use of support service contractors to support ARPA-E federal staff in the management and oversight of projects and other required functions.	No change.
<i>Other Related Expenses</i>		
<i>7,170</i>	<i>7,170</i>	-
The FY 2026 Enacted level for other related expenses primarily consists of Working Capital Fund and Energy Information Technology Services (EITS) support costs.	The FY 2027 Request level for other related expenses primarily consists of Working Capital Fund and Energy Information Technology Services (EITS) support costs.	No change.

**Research and Development  
(\$K)**

	<b>FY 2025 Enacted</b>	<b>FY 2026 Enacted</b>	<b>FY 2027 Request</b>	<b>FY 2027 Request vs FY 2026 Enacted</b>
Basic Research	-	-	-	-
Applied Research	345,000	262,500	150,219	-112,281
Experimental Development	115,000	87,500	50,073	-37,427
Subtotal, R&D	460,000	350,000	200,292	-149,708
Equipment	-	-	-	-
Construction	-	-	-	-
<b>Total, R&amp;D</b>	<b>460,000</b>	<b>350,000</b>	<b>200,292</b>	<b>-149,708</b>

**DEPARTMENT OF ENERGY**

**Funding by Site Detail**

TAS\_0337 - Advanced Research Projects Agency - Energy - FY 2027

(Dollars in Thousands)

	<b>FY 2025 Enacted</b>	<b>FY 2026 Enacted</b>	<b>FY 2027 Request</b>
<b>Washington Headquarters</b>			
ARPA-E Projects	420,000	310,000	160,292
Program Direction - ARPA-E	40,000	40,000	40,000
<b>Total Washington Headquarters</b>	<b>460,000</b>	<b>350,000</b>	<b>200,292</b>
<b>Total Funding by Site for TAS_0337 - Advanced Research Projects Agency - Energy</b>	<b>460,000</b>	<b>350,000</b>	<b>200,292</b>