CHANGING WHAT'S POSSIBLE

THE ADVANCED RESEARCH PROJECTS AGENCY-ENERGY

OVERVIEW

ABOUT ARPA-E

The Advanced Research Projects Agency-Energy (ARPA-E) provides R&D funding for transformational ideas to create America's future energy technologies. ARPA-E focuses exclusively on early-stage technologies that could fundamentally change the way Americans get, use, and store energy.

ARPA-E funds innovative ideas from academia, private industry, national laboratories, start-up companies, and small businesses—providing project teams with an average award of $2-3 million over several years. Every project team receives hands-on guidance to meet ambitious technical milestones that push the boundaries of energy innovation. ARPA-E's unique Technology-to-Market program also empowers project teams with business insight and strategies to accelerate their progression towards commercialization.

As of February 2018, ARPA-E has funded more than 660 energy technology projects across nearly 40 focused programs and open solicitations.

ARPA-E HISTORY

In 2005, leaders from both parties in Congress asked the National Academies of Sciences, Engineering, and Medicine to identify concrete steps that federal policymakers could take to bolster U.S. competitiveness in science and technology as a means to help the United States prosper and stay secure in the 21st century. The Academies recommended that Congress establish an Advanced Research Projects Agency within the U.S. Department of Energy (DOE). In 2007, Congress passed, and President George W. Bush signed into law, the America COMPETES Act, establishing ARPA-E. In 2009, Congress appropriated and President Barack Obama allocated the new agency's first $400 million in funding.

ARPA-E is modeled after the successful Defense Advanced Research Projects Agency (DARPA) in the Department of Defense (DOD), the agency credited with such innovations as GPS, the stealth fighter, and computer networking.

"Pound for pound, dollar for dollar, it's hard to find a more effective thing government has done than ARPA-E."

-FedEX founder, chairman, president and CEO Fred Smith

ARPA-E'S UNIQUE PROCESS

ARPA-E actively manages its projects, positioning them so partners are likely to commit to the next stage of development once ARPA-E's funding period is over.

ARPA-E advances its early-stage technologies toward the market with results-oriented handoff strategies:

- **New company formation**, which takes place when ARPA-E project teams at labs or universities "spin out" their work, can facilitate and expedite the commercialization process for technologies.
- **Patents and publications** generated by ARPA-E project teams help advance scientific understanding and technology innovation.
- **Follow-on investment** from private investors during or after an ARPA-E award can provide project teams with the strategic funding needed to advance their technologies.
- **Strategic partnerships** with private companies that can license, acquire, and buy technologies help project teams progress along a clear path to market after their time with ARPA-E.
- **Public funding** from other government agencies, including the DOD and other DOE agencies, can advance projects after ARPA-E's initial funding.

As of February 2018, 74 ARPA-E projects have attracted more than $2.6 billion in private-sector follow-on funding. In addition, 71 ARPA-E project teams have formed new companies to advance their technologies, and 109 ARPA-E projects have partnered with other government agencies for further development. Moreover, ARPA-E projects have generated 1,724 peer-reviewed journal articles, and 245 patents issued by the U.S. Patent and Trademark Office.

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ARPA-E LEADERSHIP

John G. Vonglis serves as acting Director of ARPA-E. He also serves as Chief Financial Officer and Chief Risk Officer for the Department of Energy. Prior to joining DOE, his private sector experience includes senior financial and operational positions within advisory, aerospace/defense, financial services and high-technology firms.

Dr. Chris Fall serves as the Principal Deputy Director. He is responsible for oversight of the agency and all technology issues relating to ARPA-E programs. Previously, Fall served as acting chief scientist and lead for the research division at the Office of Naval Research (ONR). Before that, he served in the White House Office of Science and Technology Policy as assistant director for defense programs and acting lead for the National Security and International Affairs Division.

Shane Kosinski serves as the Deputy Director for Operations. He is responsible for oversight and operations of all ARPA-E programs. Kosinski served as the acting deputy director for ARPA-E and led the effort to stand up the ARPA-E Program Office and develop the means to efficiently and effectively obligate ARPA-E's Recovery Act funding. Kosinski previously worked in DOE's Office of the Chief Financial Officer, where he led several agency-wide efforts for the 2009 Presidential Transition and the American Recovery and Reinvestment Act.

Conner Prochaska serves as Senior Advisor and Chief of Staff. He helps manage day-to-day operations and provides strategic input to the agency's leadership team. Previously, Prochaska was senior vice president and the associate general counsel at First Capital Investment Corporation. Prior to First Capital, he served as an intelligence officer in the United States Navy, obtaining the rank of lieutenant.

Dr. Patrick McGrath serves as the Deputy Director for Technology. He is responsible for oversight of all technology issues relating to ARPA-E's programs. Prior to ARPA-E, McGrath served as a technical advisor at the Defense Advanced Research Projects Agency (DARPA), where he played a central role in program development, execution, and technology transition of DARPA programs in portable fuel cells for unmanned systems, hybrid energy storage systems, new catalytic approaches for carbon-based solar fuels, and novel electrochemical systems.

Dr. Jennifer Gerbi serves as the Associate Director for Technology and a Program Director. She is responsible for supporting oversight of technology issues relating to ARPA-E's programs, assisting with program development, recruitment, and coordinating project management. Prior to ARPA-E, Gerbi worked at Dow Corning as a program leader in the company's Business and Technology Incubator, managing a global team as a business leader, and as an applied engineering and technical service leader. Before Dow Corning, Gerbi served as a senior materials scientist at The Dow Chemical Company.

Dr. James Zahler serves as the Associate Director for Technology-to-Market. He is responsible for oversight of all Technology-to-Market activities. Zahler joined from GT Advanced Technologies, where he served as the senior director of product technology. Previously, Zahler served as a cell technology manager at BP Solar, supported BP Alternative Energy Ventures, and co-founded Aonex Technologies.

ARPA-E'S ENERGY INNOVATION SUMMIT

The ARPA-E Energy Innovation Summit is the premiere U.S. energy technology innovation event. The **2019 Energy Innovation Summit** will take place **July 8-10, 2019** at the **Gaylord Rockies Convention Center** in **Denver, Colo**. Visit www.arpae-summit.com for more information and to register for the Summit.

Contact Us

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