FACT SHEET:

ARPA-E Announces $135 Million Commitment for Fusion Technology – The Largest Fusion Investment in the Agency's History

U.S Department of Energy (DOE) Advanced Research Projects Agency–Energy (ARPA-E)
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Ensuring American Energy Dominance – Accelerating Fusion Breakthroughs for an Affordable, Reliable, Secure Energy Supply.

San Diego, CA – Today, during his plenary remarks at the 2026 ARPA-E Energy Innovation Summit, ARPA-E Director Conner Prochaska announced a $135 million commitment to further develop and commercialize fusion technologies. Deployed over the next 18 months, this will constitute the largest concentrated investment in fusion technology in the agency's history.

This investment accelerates momentum from a decade of ARPA-E's stewardship of early-stage, high risk technologies across the fusion ecosystem. This investment affirms ARPA-E's central role in catalyzing the fusion power industry, which barely existed a decade ago.

- When ARPA-E entered the fusion space in 2014, the field was dominated by two large-scale approaches: magnetic confinement and inertial confinement. ARPA-E identified a white space–novel, lower-cost architectures and unconventional confinement concepts–and moved fast.
- To date, ARPA-E has invested approximately $134 million in commercial fusion technologies. Such public investment has catalyzed more than $1.5 billion in private follow-on funding.
- When ARPA-E first entered this technical space, there were 12 fusion companies. Today, there are more than 50 that are collectively backed by $10 billion in private investment. Many of these companies were spun out of ARPA-E funded projects and research.

The New $135 Million Commitment: Faster, Cheaper, Ready to Scale

The $135 million in newly pledged funding announced today, to be spread over multiple programs, significantly expands ARPA-E's fusion portfolio, with investments directed at the toughest technical barriers to commercial fusion power. This funding supports the Trump

Administration's priority to expand affordable, reliable, secure energy through baseload power generation and delivers on Secretary of Energy Chris Wright's goal to strengthen America's energy dominance through advanced technologies.

Key focus areas for exploration may include:

- Advanced Plasma Heating and Driver Systems: Efficient, lower-cost plasma heating and driver systems to reduce plant costs.
- Next-Generation Fuel Cycles and Fuels: Advanced fuels and novel fueling techniques, such as spin-polarized fusion, to boost power output and simplify the fusion fuel cycle.
- Advanced Power Conversion and Plant Systems: Next-generation pulsed power and power conversion systems for a smaller plant footprint.
- Innovative Fusion Power Plant Architectures: Novel power plant designs and components that improve durability and economic competitiveness.

"The question is no longer whether fusion is possible. The question is how fast we get fusion-generated power on the grid, and whether America leads that achievement," said **ARPA-E Director Conner Prochaska**. "ARPA-E helped build America's fusion power industry by taking risks on radical ideas and building an innovative supply chain. Today's announcement is how we press our advantage. We are going after the hardest technical bottlenecks standing between fusion power and a commercially viable system, because that's what this moment demands."

Why Fusion, Why Now

Global energy demand is projected to more than double in the coming decades, driven by AI, manufacturing, and digital infrastructure. Fusion has the potential to be a source of abundant, reliable baseload power–precisely what a grid under increasing demands needs.

The United States is already the world leader in fusion commercialization; ARPA-E's $135 million announcement marks the next step in ensuring fusion power moves from scientific possibility to a source of affordable, reliable, and secure energy.

Seeding an American Fusion Industry

ARPA-E launched its ALPHA program in 2014, to explore lower-cost, non-mainstream fusion pathways. Catalytic projects took risks on unconventional ideas, proved the technology works, and attracted private capital to scale those successes. ARPA-E's early public investment helped build

not just individual companies but an entire ecosystem of technology, talent, and supply chain capacity.

That innovation model produced some of the most impactful companies in the emerging fusion sector, including Zap Energy, Realta Fusion, Thea Energy, and Type One Energy. These enterprises, as part of the broader portfolio of ARPA-E performers, have attracted more than $1.5 billion in private follow-on investment. ARPA-E has also supported the development of high-temperature superconducting magnet technology at Commonwealth Fusion Systems, which is foundational to their ARC fusion pilot plant.

Today, as the commercial industry evolves, ARPA-E will continue to scout the next frontier of problems and de-risk the challenges that the private sector has not yet reached. The agency's most recent fusion program is CHADWICK, which seeks to develop the advanced materials and alloys necessary for fusion power plants to operate reliably at commercial scale for the decades-long operational lifetime that is required.

ARPA-E is the disruption wing of the DOE. Learn more about ARPA-E's commitment to expanding America's supply of affordable, reliable, and secure energy by developing and deploying advanced energy technologies.