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

Ranking Member Zoe Lofgren (D-CA)

Energy Subcommittee Hearing:
Bridging the Valley of Death: ARPA-E's Role in Developing Breakthrough Technologies

March 12, 2024

Thank you, Chairman Williams and Ranking Member Bowman, for holding today's hearing, and I would also like to welcome our distinguished panel of witnesses for being here this morning.

In the 15 years since it was established, ARPA-E has really become one of the most effective tools we have to maintain our international competitiveness and to accelerate our transition to a clean energy future. ARPA-E now has an impressive track record of 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.

A great example is what this agency has done to foster innovative pathways to fusion energy, and I know we'll hear a lot more about this from Dr. Umstattd in a moment. About 9 years ago, ARPA-E established a program that would focus on particularly promising, but less-proven fusion energy concepts that – if successful – could lead to systems that are less costly and faster to develop and deploy than the technologies that had thus far been supported by the Department of Energy. This program and its successors have since enabled the establishment and growth of several of the most prominent companies in the emerging U.S. fusion industry.

To date, ARPA-E estimates that its investments in fusion projects have led directly to private sector investments in these teams that are 6 times larger than its own.

I'm also pleased that the broader DOE fusion program has paid attention and begun to embrace ARPA-E's impressive results. This is now evidenced by a joint program with the DOE Office of Science to support the development of materials and enabling technologies that will be needed for commercial fusion energy. And of the 8 fusion companies selected to participate in the Office of Science's new milestone-based public-private partnership program, 5 were previously supported by ARPA-E – including Zap Energy.

Beyond fusion, ARPA-E's overall record of accomplishment now includes over $12.1 billion in private sector follow-on funding for a group of 230 ARPA-E projects since the agency's founding in 2009. Equally notable, 154 projects have formed new companies and 340 projects have shown enough promise to result in partnerships with other government agencies for further development. Moreover, as of January, ARPA-E projects have helped advance scientific

understanding and technological innovation through 7,318 peer-reviewed journal articles and over 1,100 patents issued by the U.S. Patent and Trademark Office.

This is why I am frankly so disappointed that the budget that Congress just passed will actually cut funding for ARPA-E. This agency is widely recognized as one of the best investments that we can make to secure U.S. leadership in the technologies of the future. So I think that, unfortunately, our friends in the Majority who insisted on these and other substantial cuts to our nation's cutting-edge research enterprise will need to reassess these priorities in future years if we do indeed care about beating China and other competitors around the world in building the next breakthrough industries. The Energy Act of 2020 and the CHIPS and Science Act were quite substantial bipartisan achievements, but if we don't actually fund the Science parts, then we are selling our entire country short.

That said, I am looking forward to diving deeper into these issues throughout this hearing, and with that I yield back.