Jennifer Gerbi
Associate Director for Technology

ARPA-E
(c) GOALS.—

(1) IN GENERAL.—The goals of ARPA-E shall be—

(A) to enhance the economic and energy security of the United States through the development of energy technologies that result in—

(i) reductions of imports of energy from foreign sources;

(ii) reductions of energy-related emissions, including greenhouse gases; and

(iii) improvement in the energy efficiency of all economic sectors; and

(B) to ensure that the United States maintains a technological lead in developing and deploying advanced energy technologies.

(2) MEANS.—ARPA-E shall achieve the goals established under paragraph (1) through energy technology projects by—

(A) identifying and promoting revolutionary advances in fundamental and applied sciences;

(B) translating scientific discoveries and cutting-edge inventions into technological innovations; and

(C) accelerating transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty.
If it works…

will it matter?
Technology Acceleration Model

PROGRAM CYCLE

~4 YEARS

Transition Toward Market Adoption

PROJECT HANDOFF

DEFINITION

COMPETITION

ACTIVELY MANAGED EXECUTION
Unique Culture and Structure

- EMPOWERED Term-limited Program Directors
- No Competition – Collaborative and Peer Driven
- No “Leadership Road Maps” – Topics driven by PDs
- We’ll fund anyone
  startups, academia, large industry, labs, combinations thereof
- Extremely Flat Organization (under Secretary)
- Both Tech and Market considered simultaneously
- Flexible Funding Vehicles – STARTUP, TINA, etc.
ARPA-E Program Portfolio

**ELECTRICITY GENERATION & DELIVERY**
- INTEGRATE
- GRID DATA
- IONICS
- MOSAIC
- GENSETS
- NODES
- ALPHA
- CHARGES
- FOCUS
- MEITNER
- DAYS
- REBELS
- GRIDS
- GENI
- HEATS
- SOLAR ADEPT
- IMPACCT

**EFFICIENCY**
- SENSOR
- CIRCUITS
- PNDIODES
- ENLITENED
- SHIELD
- ROOTS
- BREAKERS
- MONITOR
- ARID
- DELTA
- HITEMMP
- SWITCHES
- METALS
- BEETIT
- REACT
- ADEPT

**TRANSPORTATION**
- MARINER
- REFUEL
- NEXTCAR
- TRANSNET
- TERRA
- RANGE
- REMOTE
- ELECTROFUELS
- AMPED
- BEEST

Complement Focused Programs
ARPA-E Impact Indicators

Since 2009 ARPA-E has provided $2 billion in R&D funding to more than 800 projects.

145 Projects have attracted more than $2.9 billion in private-sector follow-on funding.

76 projects have formed new companies.

131 projects have partnered with other government agencies for further development.

2,489 peer-reviewed journal articles from ARPA-E projects.

346 patents issued by U.S. Patent and Trademark Office.

As of March 2019
https://arpa-e.energy.gov