Commercialization & Deployment Mission

“Out of the Labs and into the Market”
Identify and implement opportunities to accelerate EERE technology commercialization and deployment

• Connect investors to technologies (Entrepreneur in Residence, Technology Showcase, Technology Portal)

• “Valley of Death” Funding (SBIR, Technology Commercialization Fund)

• Deployment and ARRA Initiatives (Advanced Technology Vehicle Manufacturing Loan program, Renewables Manufacturing tax credit)
Technology Commercialization Fund

- Innovations struggle to find financing post-research and pre-venture capital funding
- TCF provides funding for lab technologies on the brink of commercialization
- Funds restricted to prototype development, demonstration and deployment – not further scientific research
- 50/50 industry-matched funds required to participate proves market interest
- DOE TCF funding typically ranges from $100,000 to $250,000 per technology
- In 2007 and 2008 fund size determined by 0.9% of EERE Applied R&D spend
- Over $14m of funding awarded to 8 National Labs over past two years

TCF Project Funding by Technology Program ($MM)

- Building Technologies, 1,839
- Industrial Technologies, 2,400
- Vehicle Technologies, 1,375
- HT, 545
- Biomass, 857
- Wind and Water, 0
- Geothermal, 0
- Other, 15,364
- Solar, 3,545
DOE’s Entrepreneur in Residence program connects leading scientific and business talent

- EERE Competitively selects Venture Capital Firm
- Venture Capital Firm hires entrepreneurs
- EERE provides small matching-funds and full access to laboratory ($50-100K)
- Pre-Negotiated standard equity share license agreement (Stanford Model)
- 3 EIRs in 2008 - Pilot
  - One lab – one entrepreneur – one venture capital EERE model
- 6 EIRs in 2009 – Rollout & Emulation
  - 4 EERE – 3 with single VCs, 1 multiple VC
  - 2 Lab emulations – 1 single VC, 1 multiple VC
Many EERE-funded technologies stall in the “commercialization valley of death” simply because the innovation has not been clearly communicated to the business community.

Identified nearly 100 promising EERE technologies

Created simple, layman’s descriptions of the innovation opportunity

Invited prominent investors to a two-day conference showcasing technologies

Sample of 75+ Firms Represented in 2007 & 2008
Promote technology ready for commercialization
- Web-based system that provides listings of energy-relevant technologies
- 1st Phase requires effort to get technologies written up and into the portal before the next phase can begin.
- “One-stop shop” for technology seekers (companies, venture capitalists, etc.) to identify and bundle energy relevant technologies.

Synergizing disparate technologies into solutions

Collect and survey all program funded technologies

There is potential to scale, add additional features and expand scope of mission
## EERE Commercialization Evolving

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### Connect Investors and Technology
- EIR
- TCS
- EIR at more labs and testing multiple VC model
- TCS expanded, regional, larger audience, more participation from labs
- Portal: all technologies from all labs transparent to all entrepreneurs and investors all the time
48C Manufacturing Credit

Program Summary

• Goal is to grow U.S. domestic manufacturing of renewable & efficiency technologies
• $2.3bn for 30% tax credits of capital costs
• IRS as lead; EERE as subcontractor
• Program due 180 days after ARRA

Covered Technologies

Solar CCS
Wind Energy Conservation
Geothermal Vehicle storage
Microturbines Plug-in electric drive
Fuel cells Other renewables
... and any other renewable property
...or as determined by the Secretary

Selection criteria

• Reasonable expectation of commercial viability
• Domestic job creation
• Potential for technological innovation & commercial deployment
• Net impact in avoiding or reducing GHG emission or avoiding or reducing air pollution
• Lowest levelized costs of generating, storing or reducing consumption of electricity
• Lowest levelized cost of reducing greenhouse gas emissions