Mind the Gap: A Design for a New Energy Technology Commercialization Foundation

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About ITIF

- Independent, nonpartisan research and education institute focusing on intersection of technological innovation and public policy, including:
  - Innovation and competitiveness
  - IT and data
  - Telecommunications
  - Trade and globalization
  - Life sciences and agricultural biotech
  - Clean energy innovation

- Formulates and promotes policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress

- World’s top think tank for science and technology policy, according to the University of Pennsylvania’s authoritative *Global Go To Think Tank* Index
Contents

1. Project Goals and Process, Foundation Concept, and Problem
2. Collaboration Strategies and Commercialization Activities
3. Next Steps
Project Goals and Process

- Understand how a Department of Energy Foundation (DOEF) should be organized and operated.

- Share this understanding with and build support, if appropriate, for it among key stakeholders in a future DOEF.
Agency-Related Foundations: What makes them special?

**Everyday Implementation of Congressional Authorization**

- Direct connection to agency
- Public-private partnerships
- Flexible and fast
- “Official” imprimatur or prestige
- Opportunities are immense b/c it is a 501(c)3 and not a federal agency
- Non-federal contract mechanisms
Energy Technology Commercialization Foundation

- **Mission:** Strengthen U.S. competitiveness in a carbon-constrained world.

- **Funding:** One-time $30M and $3M/yr appropriation, nongovernmental donors

- **Governance:** Independent Public Charity structured to re-grant.

- **Functions:** Collaboration Strategies and Commercialization Activities
The Problem

Invention  Translation  Adoption  Diffusion

Valley of Death

Governement-Funded Academic and Lab Research

Private-Sector Investment and Activities

Process of Technological Innovation
U.S. Department of Energy – Network of Expertise and Partners
Philanthropic Funding
Basic Science and Energy and Climate Policy and Advocacy

Adapted from a DOE EERE slide on Energy Innovation Ecosystems.
“The government historically performs much less well at translation, adoption, and diffusion... partly because energy sector decision-making is ultimately in the hands of the private sector.”

Source: PCAST, Accelerating the Pace of Change in Energy Technologies Through an Integrated Federal energy Policy, 2010.
GAO Study
Federal Government Constraints: General Management Policies

- Budget preparation, review, and approval
- Strategic and performance planning
- Budget execution and funds control
- Control of improper payments
- Internal control and accounting systems
- Preparing and reporting of audited financial statements
- Standards of conduct
- Whistleblower protection
- Access to public records
- Availability of federal contract and grant information
- Access to public meetings

Congress Established Over 200 Entities to Overcome these Constraints

ETCF: Collaboration Strategies

Process of Technological Innovation
Collaboration Strategy
National Cross-cutting Challenges: We can do better!

Why wait!
We can do better!

Decarbonizing the
Marine transportation Sector

- “Support the development of technologies that solve ocean problems...and have strong commercialization potential
- Provide funding for scale-up and development
- Goal is to tailor assistance to the needs of each group to help them move their ideas across the dreaded Valley of Death”

Collaboration Strategy
Regional Energy Innovation Ecosystems: Need more Resources!

Source: Brookings-Battelle Clean Economy Database
An establishment in a given segment is defined to be in a cluster if other establishments in the same county comprised at least one percent of all U.S. employment for the given segment.
ETCF: Commercialization Activities

Government-Funded Academic and Lab Research

Invention

Translation

Adoption

Diffusion

Process of Technological Innovation

Commercialization Activities
- Training & Education
- Maturation Funding
- Access to Facilities and Expertise
- Convening and Stakeholder Engagement

Industrial Investment and Activities

Resources
ETCF: Governance - Connectivity to DOE is key!

- Public Law
- Agency-affiliated precedents
  - Orders and internal regulations
  - Liaisons
  - Secretarial POC
- DOE does NOT have Veto Power over ETCF
- Trusted Relationships
Next Steps: Fiscal Year 2020 Congressional Appropriation

DOE to work with the National Academy for Public Administration to conduct study on a nonprofit foundation

- Advance DOE’s mission of addressing the nation’s energy challenges
- Assessment of comparable foundations at other Federal agencies
- Focused on structure and governance and how to work with the private sector
Next Steps: ITIF

Urgency Compels Action...
Thank You!

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