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

Jetta L. Wong David M. Hart

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@jetta_wong @ProfDavidHart





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David



Jetta



Paul



Jennifer



Adam





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





- 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

BIOMARKERS



Energy Technology Commercialization Foundation

- Mission: Strengthen U.S. competitiveness in a carbonconstrained 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



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.



President's Council of Advisors on Science and Technology Process of Technological Change

"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
 Standards of conduct
- 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

- 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



Process of Technological Innovation

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



Thank You!

Jetta Wong | Jetta@JLWAdvising.com | @Jetta_Wong

David Hart | dhart@itif.org | @ProfDavidHart



