



Decision Making for Demonstration Funding

March 30, 2023



Welcome!



Logistics



Chatham House Rule

When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.

— www.chathamhouse.org



Chatham House Rule

- We will be recording this workshop for internal use and notetaking – we will not release the recording to the public
- We will distribute a list of participants but will not make it publicly available, per Chatham House
- We will have a public page for the workshop on the RFF website which will have the agenda, concept paper, final paper and any presentations we have permission to share



DOE Participation

- We are very happy to have participants from multiple DOE offices attending this workshop
- Please **DO NOT** mention or advocate for any specific projects that are requesting funding from DOE



Zoom Etiquette

- Using standard zoom – goal is to have this be relatively informal
- Please raise your hand to ask a question, but if we don't see you, don't hesitate to speak up
- Please identify yourself when speaking
- There will be 20 minutes of discussion after the presentations of both speakers in each session – please hold questions and comments until then
- Please speak up, but we will also have someone monitoring the chat for questions and comments



Any questions?

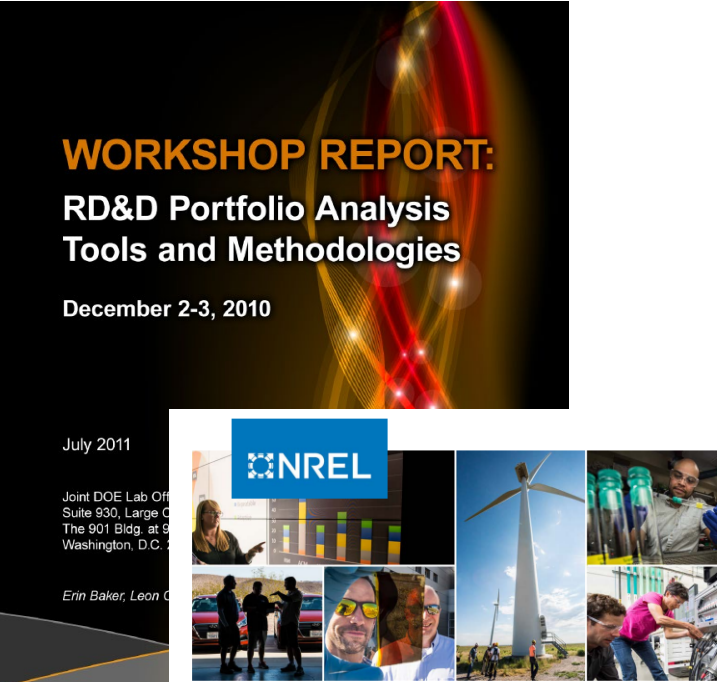


Workshop Introduction



Demonstration Funding

- IIJA and IRA give billions of dollars to DOE for demonstration funding
- DOE has held workshops in the past about R&D funding for early-stage research, but demonstration funding presents novel issues
- This involves taking risks with large amounts of money – some level of project failure should be expected (and encouraged!)



WORKSHOP REPORT:
**RD&D Portfolio Analysis
Tools and Methodologies**
December 2-3, 2010

July 2011
Joint DOE Lab Off
Suite 930, Large C
The 901 Bldg, at 9
Washington, D.C. 2
Erin Baker, Leon C

**Workshop Report on Methods for R&D
Portfolio Analysis and Evaluation**

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NREL is a national laboratory of the U.S. Department of Energy
Office of Energy Efficiency & Renewable Energy
Operated by the Alliance for Sustainable Energy, LLC
This report is available at no cost from the National Renewable Energy
Laboratory (NREL) at www.nrel.gov/publications.
Contract No. DE-AC36-08GO28308

Technical Report
NREL/TP-6A20-75314
September 2020



Demonstration Funding for DOE in IIJ A and IRA

OCED Project Portfolio

- Advanced Reactor Demonstration Projects (\$2.5 billion)
- Carbon Capture Large-Scale Pilot Projects (\$937 million)
- Carbon Capture Demonstration Projects Program (\$2.5 billion)
- Clean Energy Demonstration Program on Current and Former Mine Land (\$500 million)
- Energy Improvements in Rural or Remote Areas (\$1 billion)
- Industrial Demonstrations Program (\$6.3 billion)
- Long-Duration Energy Storage Demonstrations (\$505 million)
- Regional Clean Hydrogen Hubs (\$8 billion)
- Regional Direct Air Capture Hubs (\$3.5 billion)

--<https://www.energy.gov/oced/office-clean-energy-demonstrations>



Demonstration Funding for DOE in IIJ A and IRA

DOE Bipartisan Infrastructure Law and Inflation Reduction Act Provisions led by the Office of Manufacturing and Energy Supply Chains:

- **Advanced Energy Manufacturing and Recycling Grant Program**
- **Battery and Critical Mineral Recycling - Retailers as Collection Points, and State and Local Programs**
- **Battery Manufacturing and Recycling Grants**
- **Battery Material Processing Grants**
- **Domestic Manufacturing Conversion Grants**
- **Energy Efficient Transformer Rebates**
- **Enhanced Use of Defense Production Act of 1950**
- **Extended Product System Rebates**
- **Implementation Grants for Industrial Research and Assessment Centers**
- **Industrial Assessment Centers**
- **Rare Earth Elements Demonstration Facility**
- **State Manufacturing Leadership**

-- <https://www.energy.gov/mesc/office-manufacturing-and-energy-supply-chains>



Demonstration Funding for DOE in IIJ A and IRA

26 USC 48C(e) – Qualifying Advanced Energy Project Credit

\$10 Billion in IRA, with much of the evaluation delegated to DOE MESC

In comparison, entire DOE applied budget in 2010 was only \$4.2 billion!



DOE has a big challenge ahead of it

Goal of this workshop is to provide help to
DOE on how to make decisions for this
demonstration funding



How will applications be scored?

Example: Industrial Demonstrations Program

Applications are scored on 5 criteria:

- Technical Merit, Innovation and Impact (25%)
- Financial and Market Viability (20%)
- Workplan (15%)
- Management Team and Project Partners (20%)
- Community Benefits Plan (20%)



How will applications be scored?

Also 18 “Program Policy Factors”, which include

- Degree to which the proposed project contributes to a portfolio that provides the greatest benefit for the greatest number of people
- Degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty
- Degree to which the project contributes to a portfolio that meets Justice40 requirements and meets the goals reflected in the CBP criteria by producing additional benefits to communities, particularly disadvantaged communities, such as, reducing co-pollutants and other environmental (e.g., air, water) burdens
- Degree to which the proposed project promotes onshoring of critical manufacturing operations and supports the enhancement of American competitiveness in a global net-zero economy



Overview

Session 1: Metrics for Demonstration Funding

- What are they?
- How do they relate to the goals of demonstration funding?

Session 2: Portfolios and Risk

- How should the federal government look at risk when evaluating projects?
- How should the federal government develop a portfolio of projects?

Session 3: Community Benefits

- How can the DOE assure that communities benefit?
- How can DOE identify the best plans?



Final initial thoughts

Thank you all for coming

We have a great group of people with expertise in this area beyond the speakers

Please use the discussion for both questions and comments

We will be having a second workshop on Tracking and Evaluation at DOE, so stay tuned

