



OCED
Office of Clean Energy Demonstrations

THE OFFICE OF CLEAN ENERGY DEMONSTRATIONS



Bilateral Discussion

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U.S. Department of Energy

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Disclaimer

As DOE is actively engaged in Financial Assistance and Other Transaction Authority planning, we are subject to constraints during this period to ensure fairness of the process:

- DOE can only communicate public and non-privileged information during this meeting or event.**
- DOE cannot discuss the details of active or planned financial assistance matters [e.g., Requests for Information (RFI), Notices of Intent (NOI), Requests for Proposals, Funding Opportunity Announcements (FOA)] or entertain requests for a specific outcome or benefit related to a Financial Assistance or OT activity.**

Background

- The International Energy Agency says we need global public investments of at least \$90 billion this decade for large-scale clean energy demonstration projects to achieve net zero emissions by 2050
- Two recent historical climate laws enacted—the Bipartisan Infrastructure Law and Inflation Reduction Act—appropriated \$25+ billion to the Office of Clean Energy Demonstrations (OCED) to deliver large-scale clean energy demonstration projects
- OCED will accelerate clean energy technologies and fill a critical innovation gap on the path to achieving our nation's climate goals while mitigating risks that allow private sector investors and developers to act



OCED Mission

Deliver clean energy technology **demonstration projects at scale** in partnership with the **private sector** to **accelerate deployment, market adoption**, and the **equitable transition** to a decarbonized energy system.”

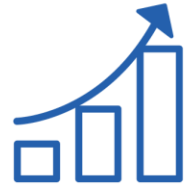


OCED Mandate



SCALE EQUITABLE, CLEAN ENERGY

Help enable 100% clean electricity by 2035 & net-zero emissions by 2050 through an equitable energy transition



UNLOCK NEW INVESTMENT

Unlock and scale trillion-dollar clean energy follow on investment from the private sector and other sources of capital



DE-RISK TECHNOLOGY

Maintain risk-based, balanced, and defensible portfolio of investments



PROVIDE PROJECT OVERSIGHT

Serve as primary DOE office to deliver full scale clean energy demonstration projects and project management oversight excellence

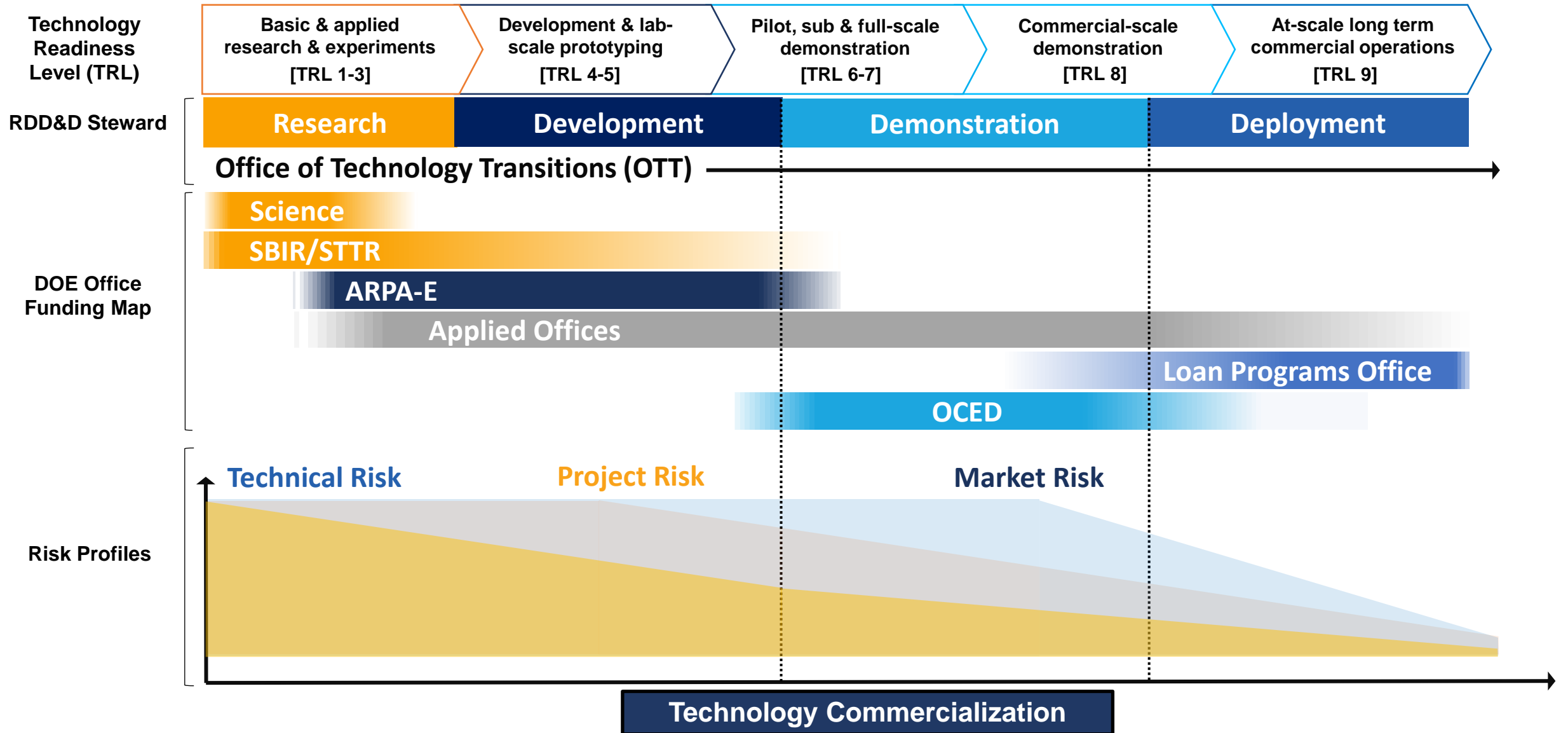


ENGAGE & COLLABORATE

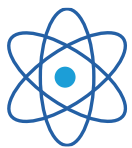
Leverage private sector and broader energy ecosystem to inform OCED and DOE technology commercialization efforts



Role Across Research, Development, Demonstration & Deployment (RDD&D) Continuum



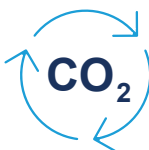
OCED Scope



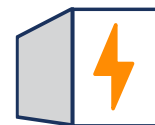
**Advanced Reactor
Demonstrations (\$2.5 billion)**



**Industrial Demonstrations
(\$6.3 billion)**



**Carbon Management
(\$7 billion)**



**Long-Duration Energy
Storage Demonstrations
(\$505 million)**



**Clean Energy Demonstrations
on Mine Land (\$500 million)**



**Regional Clean Hydrogen Hubs
(\$8 billion)**



**Distributed Energy Systems
Demonstrations (\$50 million)**



**Liftoff Enabling Programs
(\$133 million)**

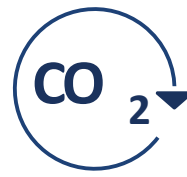


**Energy Improvements in Rural
or Remote Areas (\$1 billion)**



Carbon Management

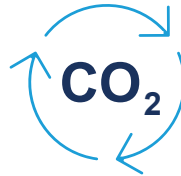
Three programs, \$7B



Carbon Capture Demonstration Projects:

Develop six at scale carbon capture facilities from gas, coal and industrials

- 2 FOAs issued: FEEDS and Demos
- 6 FEEDS under award of 8 selected
- 3 Demos selected, 2 Nat Gas 1 Coal



Carbon Capture Large-Scale Pilot Projects:

Establish and test innovative carbon capture pilot projects to support new processes and technology at scale

- 4 projects selected



Regional Direct Air Capture Hubs:

Develop four regional direct air capture hubs to capture and sequester, utilize, or sequester and utilize at least 1,000,000 metric tons of CO₂ annually

- 2 DAC Hubs selected (Topic 3)
- 1 under award
- Additional carbon management projects in Industrial Demonstration Program and Hydrogen Hubs
- ~\$2B in funding for more demonstration FOAs

A photograph of an industrial facility, likely a power plant or refinery, featuring a complex network of large, silver-colored pipes and machinery. The scene is brightly lit, with a strong light source creating a lens flare effect on the right side. The pipes are arranged in a grid-like pattern, with some running horizontally and others vertically. The overall atmosphere is one of a large-scale industrial operation.

Industrial Demonstrations

Demonstrate transformational technologies to decarbonize energy-intensive industries

- Drive a U.S. competitive edge in low- and net-zero carbon manufacturing
- Help build a market for green products through high-impact, replicable solutions

Current Status

- April 2024: Selected 33 projects for award negotiations
- August 2023: Received full applications
- March 2023: Issued \$6B funding announcement



Regional Clean Hydrogen Hubs

Build 6-10 regional clean H2Hubs across the country to create networks of clean hydrogen producers, consumers, and local connective infrastructure to accelerate use of clean hydrogen.

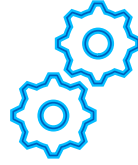
- Feedstock diversity
- End use diversity
- Geographic diversity
- Employment and training

Current Status

- October 2023: Selected seven projects for award negotiations
- July 2023: Announced \$1B NOI and RFI for demand-side hydrogen initiative
- September 2022: Issued \$7B funding announcement



Liftoff Enabling Programs



Manufacture of Advanced Key Energy Infrastructure Technologies (MAKE IT) Prize: To boost domestic manufacturing and ensure a robust, secure supply chain of critical clean energy technology components.



Voucher Program: To provide free assistance to companies for commercialization and pre-demonstration services, and to local governments for siting and permitting needs.



Collaborative Alignment for Clean Technology Industries (CACTI): For DOE National Laboratories to establish two industry working groups to increase communication across entities working within clean energy technology industries.



Liftoff Enabling Programs



GREET User Interface: To develop an industry-friendly and easy-to-use interface to access this standard life-cycle analysis modeling tool (GREET) and facilitate viability of new industrial projects.



CO₂ Removal Measurement, Reporting, and Verification Removal (MRV) Lab Call: To establish industry-accepted framework for measurement, reporting, and validation of carbon removal through mineralization, cement/concrete, biomass, and direct air capture pathways.



Solutions for Lasting, Viable Energy Infrastructure Technologies (SOLVE IT): To support innovative local clean energy solutions through organizations with a demonstrated history of community-based initiatives to help communities find solutions to their energy challenges.



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Thank you!



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