



# OCEd

Office of Clean Energy Demonstrations



## Introduction to the Office of Clean Energy Demonstrations

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Tribal Clean Energy Summit, Washington DC  
October 4, 2022

# 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 historical climate laws enacted in FY 2022—the Bipartisan Infrastructure Law and Inflation Reduction Act—appropriated more than \$25 billion to the Office of Clean Energy Demonstrations (OCED) to deliver large-scale clean energy demonstration projects
- OCED will accelerate clean energy technologies from the lab to market 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



## CENTER OF EXCELLENCE

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



## CLEAN ENERGY + EQUITABLE

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



## FOLLOW ON 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

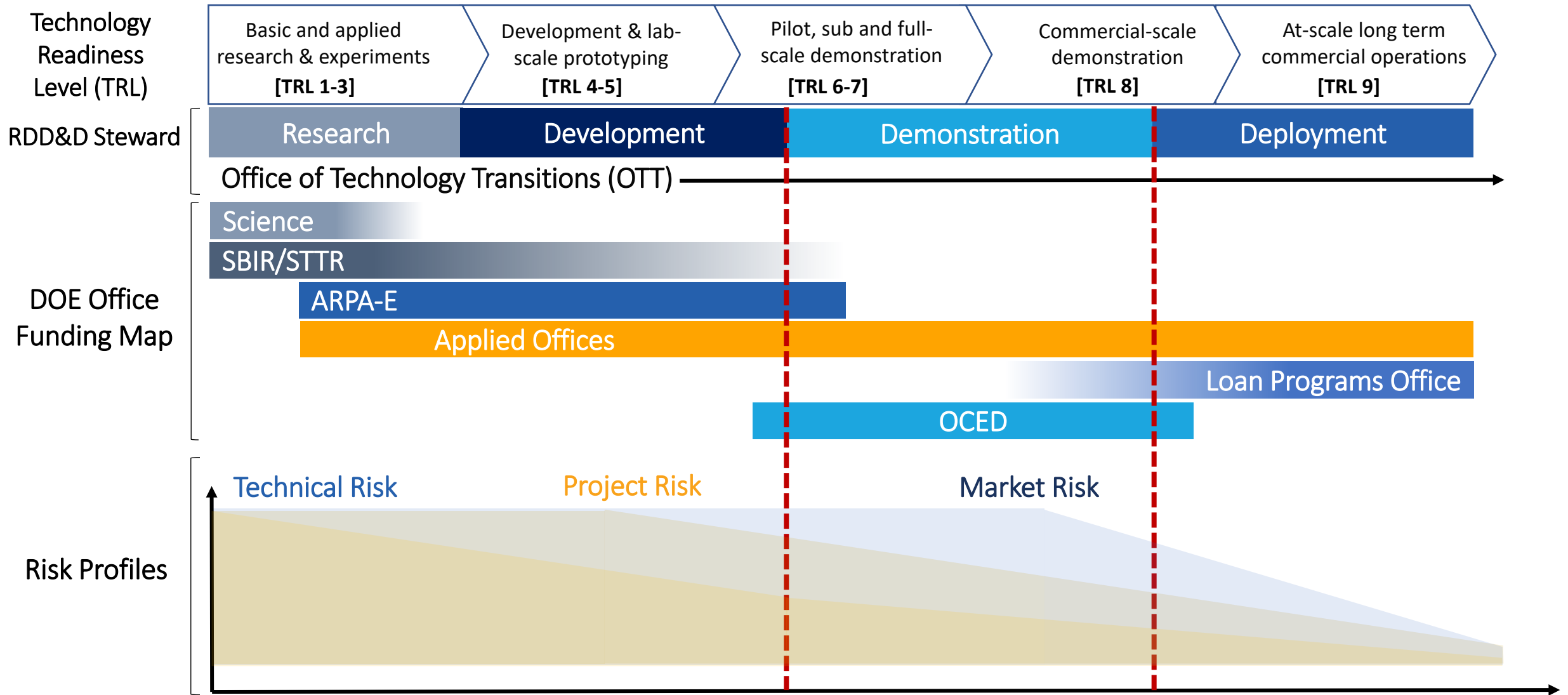


## ENGAGEMENT + OUTREACH

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

- Long Duration Energy Storage Initiative (\$505 million)
- Energy Improvement in Rural or Remote Areas (\$1 billion)
- Clean Energy Demonstrations on Mine Land (\$500 million)
- Advanced Reactor Demonstrations (\$2.5 billion)
- Regional Clean Hydrogen Hubs (\$7 billion)
- Carbon Management (\$3.5 billion)
- Industrial Emissions Demonstrations (\$500 million)
- Upgrading Grid Demonstrations (\$5 billion)



# Long Duration Energy Storage Initiative

**1) Build energy storage projects to improve grid security, reliability and facilitate clean energy on the grid and 2) Construct long-duration energy storage technologies at different scales for commercial viability with Joint DOD Program for long-duration demos on government facilities**

- Supply energy at peak periods of demand on the electric grid and improve energy efficiency
- Reduce peak loads of homes and businesses
- Provide ancillary services for grid stability
- Integrate renewable energy resources
- Increase the feasibility of microgrids
- Integrate fast charging of electric vehicles



## ***Current Status***

- Issued RFI that closed in June 2022
- Webinar held in June 2022; listening sessions held in July/August 2022

# Energy Improvement in Rural or Remote Areas (ERA)

***Improve resilience, safety, reliability, and availability of energy in rural or remote areas and increase environmental protection from adverse impacts of energy use, in coordination with Department of Interior***

- Rural or remote areas are defined as cities, towns, or unincorporated areas with fewer than 10,000 inhabitants

## ***Current Status***

- Conducting stakeholder outreach
- Planning Request for Information & workshops in Fall
- Funding announcement planned for 2023
- Announced Environmental Justice Thriving Communities Technical Assistance Centers (EJ TCTACs) with EPA





# Clean Energy Demonstrations on Mine Land

## ***Carry out up to 5 clean energy projects on current and former mine land to show technical and economic feasibility***

- Eligible technologies: solar (at least two projects); micro-grids; geothermal; direct air capture; fossil generation with CCUS; energy storage; advanced nuclear
- Focus on economic development and environmental justice

### ***Current Status***

- Conducting stakeholder outreach; upcoming workshops in Denver on October 11/12 and virtual on October 25/26
- Issued an RFI in June 2022 that closed in August 2022
- Announced Environmental Justice Thriving Communities Technical Assistance Centers (EJ TCTACs) with EPA



# Thank You!

For more information, please visit: [energy.gov/OCED](https://energy.gov/OCED)

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