



OCED

Office of Clean Energy Demonstrations



OCED 101 & Liftoff Pathways Overview

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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 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

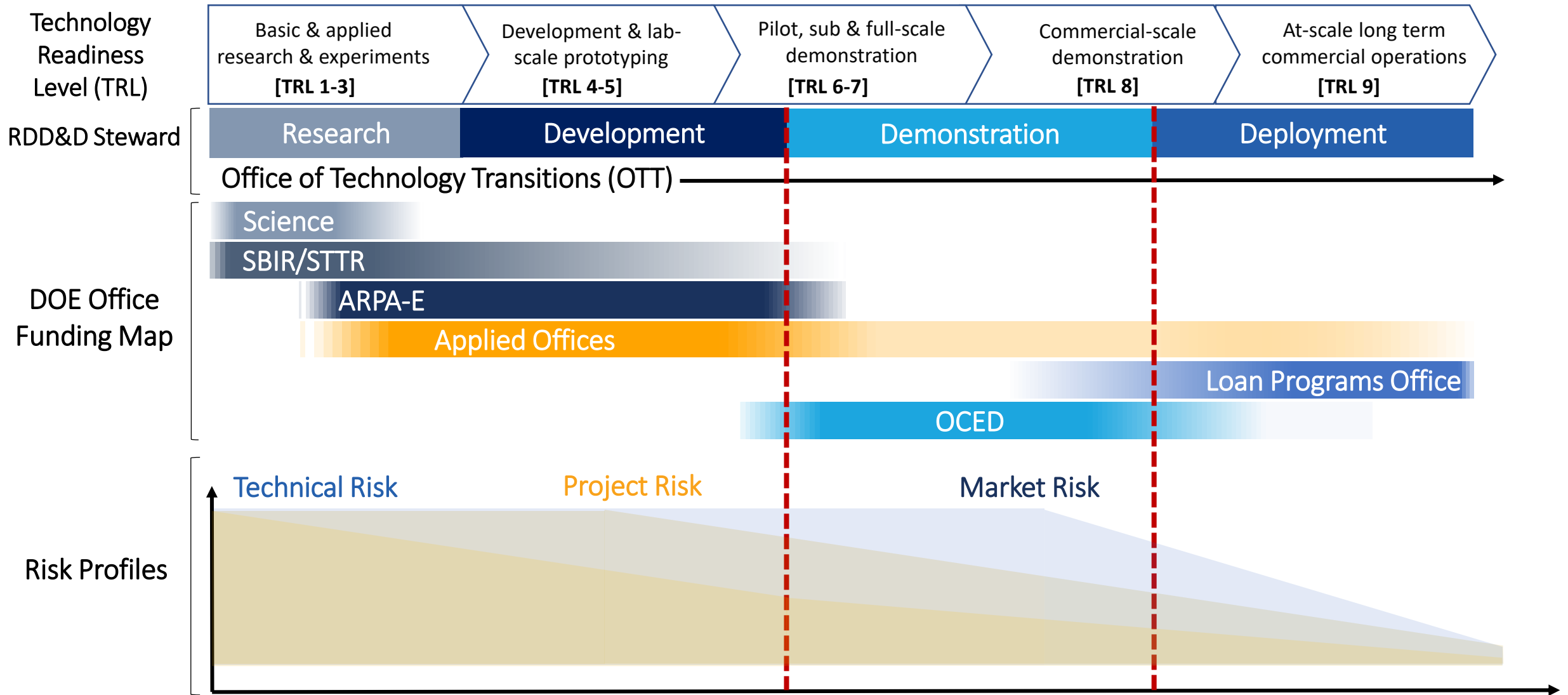


ENGAGEMENT + OUTREACH

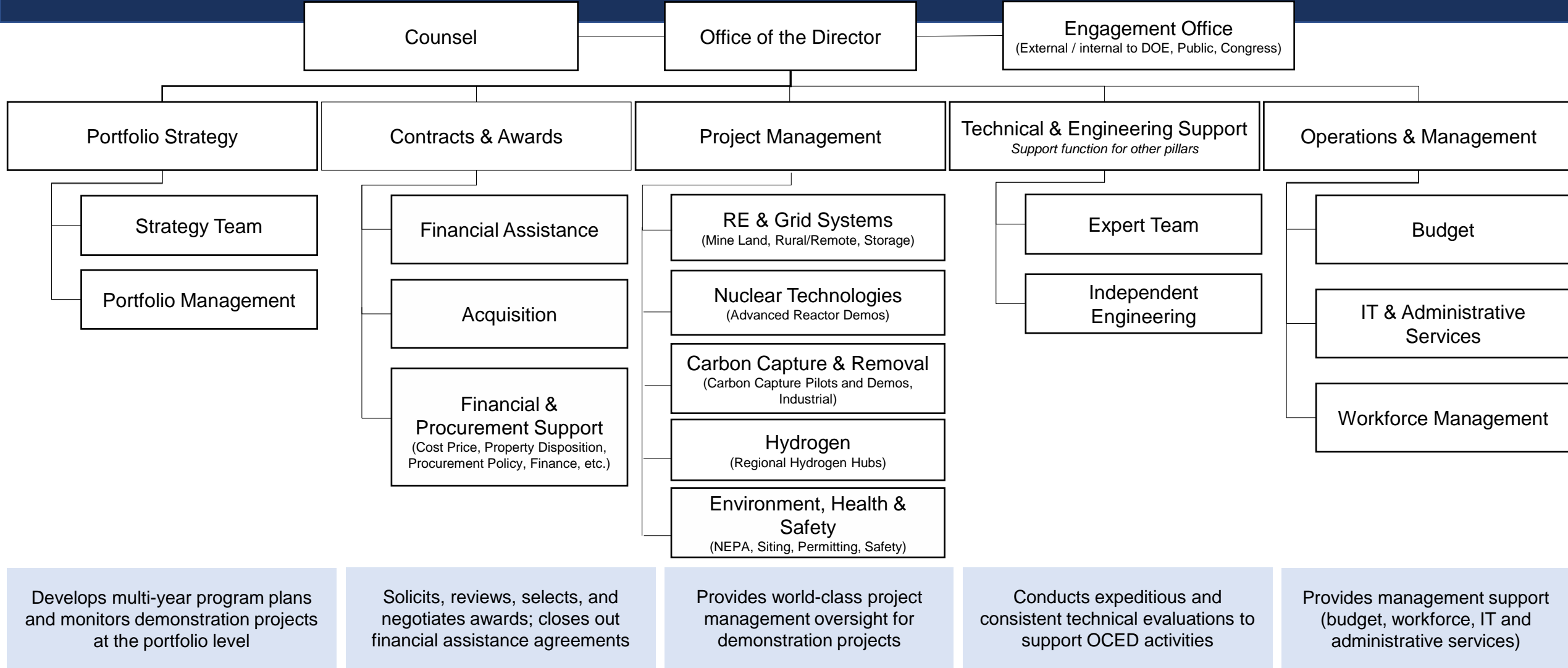
Leverage private sector and broader energy ecosystem to inform OCED and DOE technology commercialization efforts



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



OCED Programs Advance Demonstration Goals



OCED Scope

- Regional Clean Hydrogen Hubs (\$8 billion)
- Advanced Reactor Demonstrations (\$2.5 billion)
- Carbon Management (\$7 billion)
- Industrial Demonstrations Program (\$6.3 billion)
- Long-Duration Energy Storage Demonstrations (\$505 million)
- Energy Improvements in Rural or Remote Areas (\$1 billion)
- Clean Energy Demonstrations on Mine Land (\$500 million)



Major 2023 Activities in OCED

- Releasing remaining funding opportunity announcements tied to BIL and IRA funding. Develop funding opportunity related to FY23 base appropriations.
- Conduct independent merit reviews on FOAs to inform selections by Summer/Fall.
- Conduct robust independent reviews on two ARDP Projects.
- Releasing Risk Posture Plan and Multi-Year Program Plan.
- Initiate several Technology Commercialization Funded programs, in collaboration with OTT
- Develop a modeling/analysis framework for project and portfolio analysis needs.
- Release and continue to develop “Pathway to Commercial Liftoff” reports.





Thank You!

For more information, please visit: energy.gov/OCED

Email: DL-OCED-Engagement@hq.doe.gov



OCED

Office of Clean Energy Demonstrations

BACK UP SLIDES





Initial Application
Go/No-Go Decisions



	Pre-DOE funding	Phase 1: Detailed Project Plan \$[TBD] Funding, Up to 50% DOE Share, 12-18 Months	Phase 2: Project Development \$[TBD] Funding, Up to 50% DOE Share, 2-3 Years	Phase 3: Construct & Integrate \$[TBD] Funding, Up to 50% DOE Share, 3-4 Years	Phase 4: Ramp-Up & Operate \$[TBD] Funding, Up to 50% DOE Share, 2-4 Years
Engineering, Procurement, Construction	<ul style="list-style-type: none"> Conceptual Design Technical Readiness Project Schedule Total Project Cost Estimate 	<ul style="list-style-type: none"> Engineering & Design Documents Technical Maturation Plans Integrated Project Schedules 	<ul style="list-style-type: none"> Mature Engineering & Design Technical Risk Management Execution ready schedule & cost estimate, PM Tools 	<ul style="list-style-type: none"> Ongoing Execution Reporting Interim Go/No-Go reviews 	<ul style="list-style-type: none"> Ongoing performance Reporting Tech Risk Updates, Tracking Final TPC accounting
Business Development & Management	<ul style="list-style-type: none"> Business Strategy Team Description Workforce Plan Finance Plan Market potential analysis 	<ul style="list-style-type: none"> Project Management Plan Risk Management Plan Financial Modelling Site Selection 	<ul style="list-style-type: none"> Finalized Project Structure, Management, Financing Ongoing Risk Management Final legal, workforce, procurement agreements 	<ul style="list-style-type: none"> Ongoing Execution Reporting Ongoing Risk Management 	<ul style="list-style-type: none"> Updated financial analyses Revised growth plans Updated Risk Management
Permitting & Safety	<ul style="list-style-type: none"> Safety Plan(s) Regulatory Overview 	<ul style="list-style-type: none"> Safety Plan Physical, Information, Cyber Security Plans Environmental & Regulatory preparations 	<ul style="list-style-type: none"> Execution ready safety and security plans Permits & Approvals in place for Construction 	<ul style="list-style-type: none"> Ongoing Permit and Environmental Reporting Permits & Approvals in place for Operations 	<ul style="list-style-type: none"> Ongoing permit, safety, and security reporting
Community Engagement & Impacts	<ul style="list-style-type: none"> Stakeholder Identification, Communities Impact Analysis 	<ul style="list-style-type: none"> Community Development Analysis Stakeholder Engagement 	<ul style="list-style-type: none"> Finalized DEI, EEJ, J40 Plans Community Impact targets identified, tracking plans 	<ul style="list-style-type: none"> Ongoing reporting on community engagement activities 	<ul style="list-style-type: none"> Revised community engagement plans for operations Ongoing impacts analysis
Technical Data & Analysis	<ul style="list-style-type: none"> Lifecycle Emissions Analysis Techno-economic Analyses 	<ul style="list-style-type: none"> Project Production Model Updated Lifecycle Emissions and Technoeconomic Analysis 	<ul style="list-style-type: none"> Final Lifecycle Emissions & Technoeconomic Analyses V&V and Project Completion Testing Plans 	<ul style="list-style-type: none"> Periodic analyses updates V&V data collection Project completion testing and performance ramp V&V 	<ul style="list-style-type: none"> Validated performance model Finalize lifecycle and technoeconomic analyses Dissemination of analyses, Lessons Learned



Build America, Buy America (BABA)

- The BIL's BABA provisions provide a new Made in America requirement for financial assistance awards, whether funded through the BIL or appropriations:
 - “None of the funds made available for a Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States”
- DOE may waive the application of a Buy America preference on a project if:
 - It is in the public interest
 - Items are not available in sufficient quantities or satisfactory quality
 - Costs are unreasonable (>25%)
 - An urgent need in an unforeseen and exigent circumstance (waiver of public notice and the OMB review process)

