



OCED

Office of Clean Energy Demonstrations



Industrial Decarbonization and Emissions Reduction Demonstration-to-Deployment Notice of Intent – Informational Webinar

U.S. Department of Energy

Notice of Intent No.: DE-FOA-0002935

OCED

Office of Clean Energy Demonstrations

in collaboration with

MESCC

OFFICE OF MANUFACTURING AND ENERGY SUPPLY CHAINS

Disclaimer

Only publicly available information provided in the OCED Notice of Intent (NOI) is discussed in this webinar.

Attending the webinar and watching the recording is completely voluntary and will not impact an applicant's selection.

This webinar is not a rule or regulation. If there are any inconsistencies between the NOI and the statements in this webinar, the NOI is the controlling document.





We have an **unprecedented opportunity** to lead the world in the next industrial revolution by addressing our most difficult-to-abate emissions.

Goals for Today's Webinar

Introduce the Office of Clean Energy Demonstrations

Describe the Industrial Demonstrations-to-Deployment Opportunity

Guide Community Benefits Planning

Provide Context and Next Steps





Office of Clean Energy Demonstrations (OCED)

OCED's 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's 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 trillion-dollar clean energy follow on investment from the private sector and other sources of capital



DE-RISK TECHNOLOGY & OTHER PROJECT RISKS

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

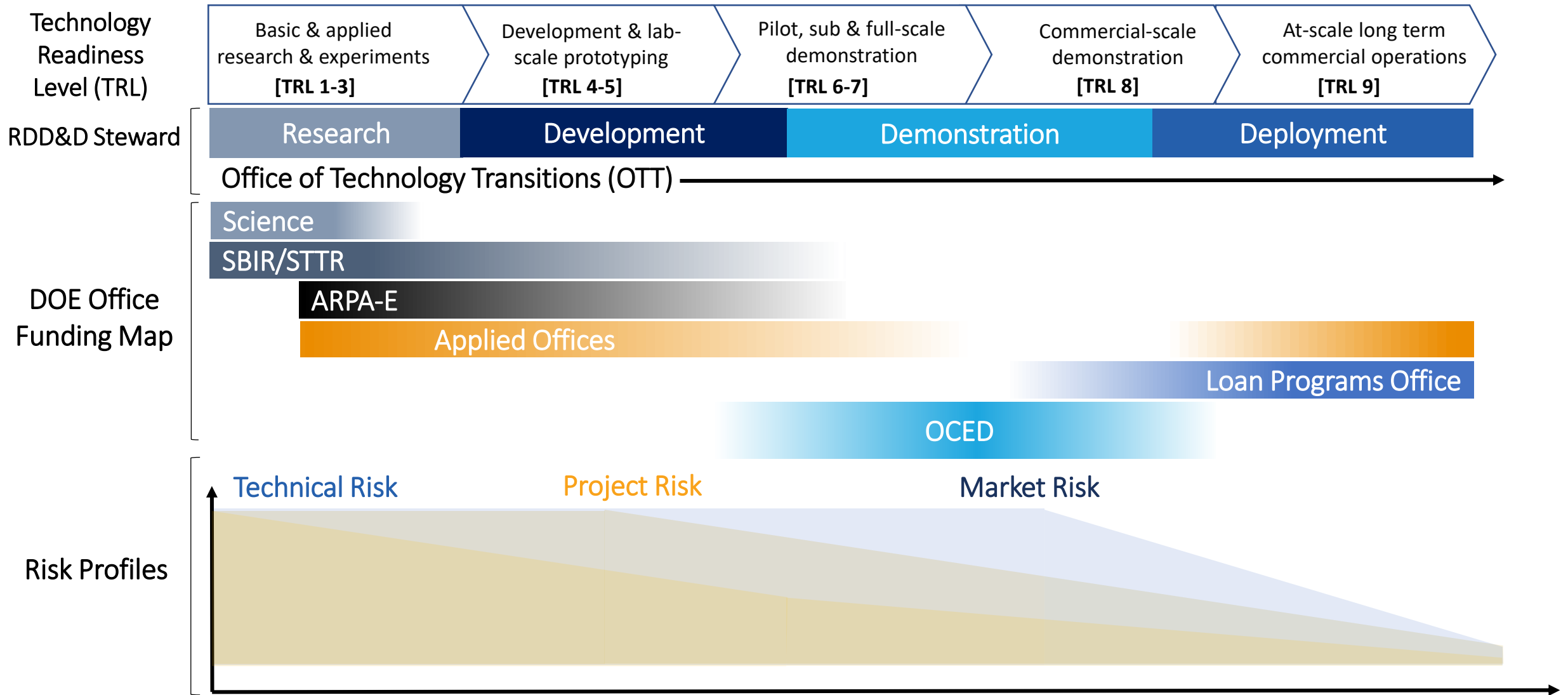


ENGAGEMENT + OUTREACH

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



OCED's Role within the U.S. Department of Energy



OCED's Scope

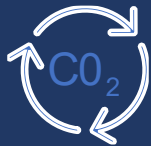
OCED is a multi-technology office tapped by the Bipartisan Infrastructure Law and the Inflation Reduction Act for

\$25+ billion

and is collaborating closely with experts across the Department.



Regional Clean Hydrogen Hubs (\$7 billion)



Carbon Management (\$7 billion)



Industrial Demonstrations (\$6.3 billion)



Advanced Reactor Demonstrations (\$2.5 billion)



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



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

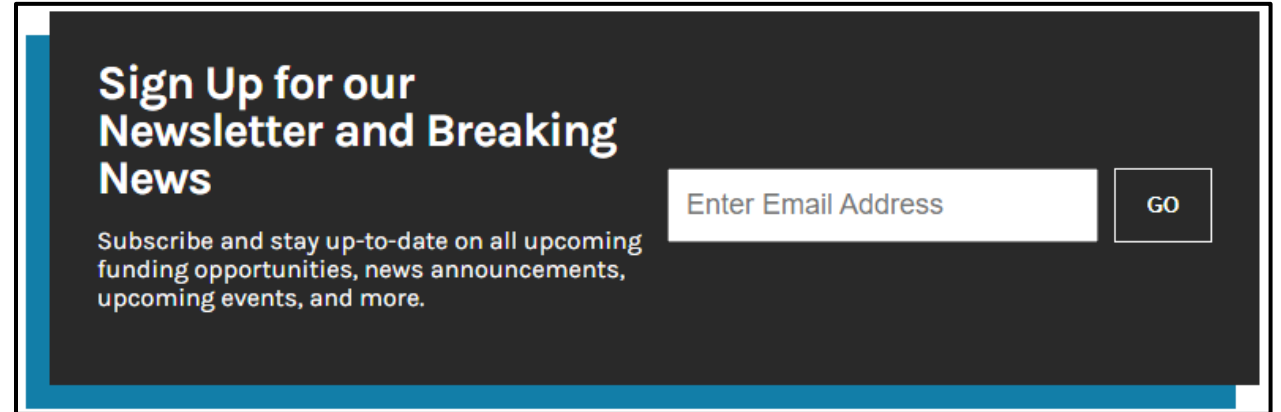


Clean Energy Demonstrations on Mine Land (\$500 million)



OCED Resources

OCED Website and Newsletter:
<https://www.energy.gov/oced/office-clean-energy-demonstrations>

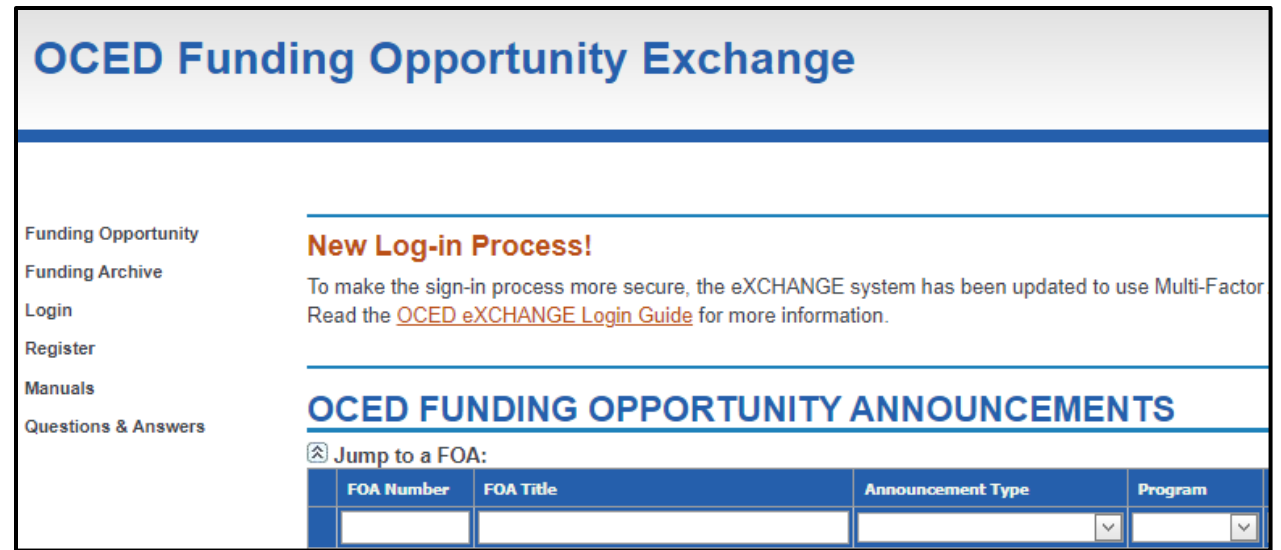


Sign Up for our Newsletter and Breaking News

Subscribe and stay up-to-date on all upcoming funding opportunities, news announcements, upcoming events, and more.

Enter Email Address

OCED Exchange (e.g., RFIs, NOIs, FOAs):
<https://oced-exchange.energy.gov/Default.aspx>



OCED Funding Opportunity Exchange

Funding Opportunity

Funding Archive

Login

Register

Manuals

Questions & Answers

New Log-in Process!

To make the sign-in process more secure, the eXCHANGE system has been updated to use Multi-Factor. Read the [OCED eXCHANGE Login Guide](#) for more information.

OCED FUNDING OPPORTUNITY ANNOUNCEMENTS

Jump to a FOA:

FOA Number	FOA Title	Announcement Type	Program
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Industrial Demonstrations Program

Program Purpose

Up to **\$6.3 billion**

- to **demonstrate transformational technologies** necessary to decarbonize energy-intensive industries
- to **drive a U.S. competitive edge** in low- and net-zero carbon manufacturing
- to help **build a market for green products** through high-impact, replicable solutions

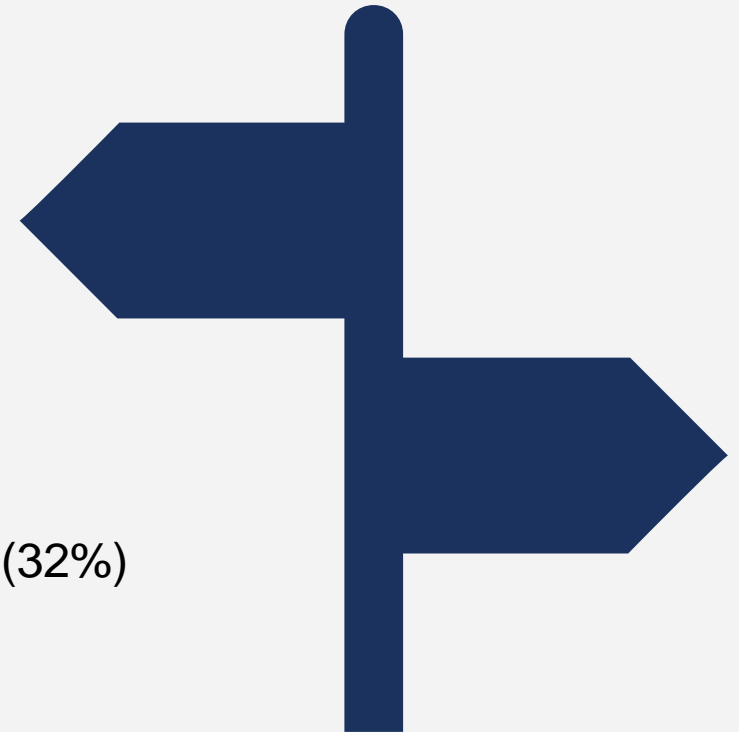
Roadmap for Industrial Decarbonization*

The U.S. industrial sector accounts for **nearly one third** of the nation’s carbon emissions.

It is considered a “difficult-to-decarbonize” sector:

- the diversity of energy inputs
- a wide array of industrial processes and operations
- emissions are from fuel for heat/power (64%) and feedstock/processes (32%)

{EIA 2018}



NECESSARY DECARBONIZATION PATHWAYS

Energy Efficiency	Industrial Electrification	Low Carbon Fuels, Feedstocks, and Energy Sources	Carbon Capture, Utilization and Storage (CCUS)
Provides near-term decarbonization opportunities without major changes to industrial processes.	>50% of manufacturing process energy is used for thermal processing, and <5% of these operations are electrified.	Low or no carbon energy sources, from green hydrogen to synthetic fuels, enable broader decarbonization.	Mitigates emissions that are difficult to abate through other strategies.

*U.S. DOE Industrial Decarbonization Roadmap, 2022: <https://www.energy.gov/eere/doe-industrial-decarbonization-roadmap>

Eligible Facilities and Subsectors of Focus

Domestic, non-Federal, nonpower industrial or manufacturing facilities engaged in energy-intensive industrial processes, including*:

iron, steel, and steel mill products

aluminum

cement and concrete

glass

pulp and paper

industrial ceramics

chemicals

other energy intensive industrial sectors

DOE is also interested in crosscutting opportunities that may address multiple facilities or sectors.

*Section 50161(g)(3) of the Inflation Reduction Act.



Program Priorities

decarbonization

Direct facility- and product-level **GHG emissions reductions**

Industry-wide potential for GHG emissions reduction

Financial and market viability, with priority for partnerships with green product purchasers

Replicability and potential for adoption by other facilities

uptake

community

Benefit creation for the greatest number of people in nearby communities, such as:

creation and retention of quality jobs

diversity, equity, inclusion, and accessibility

benefits flowing to disadvantaged communities

reduction in air quality impacts



Anticipated Program Scope

Bipartisan Infrastructure Law up to \$500M



~\$10M – \$250M / project (Fed. share)
with at least 50% non-Federal cost share



~2 – 10 projects



Testing and validation for
emissions-reducing technologies

Facility projects/retrofits
(greenfield or brownfield)



No funding deadline by statute.

Inflation Reduction Act up to \$5.812B

~\$35M – \$500M / project (Fed. share)
with at least 50% non-Federal cost share

~35 – 75 projects

Single production line and unit process retrofits

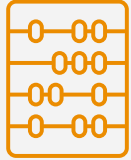
Multi-facility retrofits and/or brownfield development
using a common technology base or approach

Multi-facility retrofits and/or brownfield development
utilizing common infrastructure (e.g., electrical or thermal
inputs, storage and similar)

Projects must have passed critical risk milestones by
Sept. 30, 2026. Full FOA will include additional detail.



Additional Factors



DOE anticipates that **programmatic considerations** will include:



- technical merit and impact
- financial and market viability
- the workplan
- project team and partners
- community benefits plan



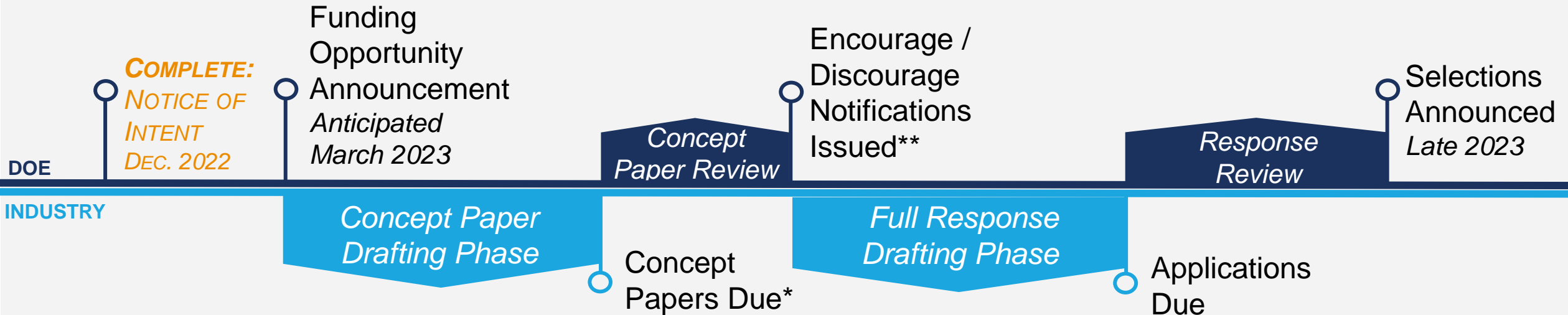
DOE anticipates providing awards to **teams led by a single entity.**



All applicants are encouraged to partner with experts if none exist within the team:

- technical engineering support or analysis
- lifecycle analysis
- community benefits

Anticipated Timeline

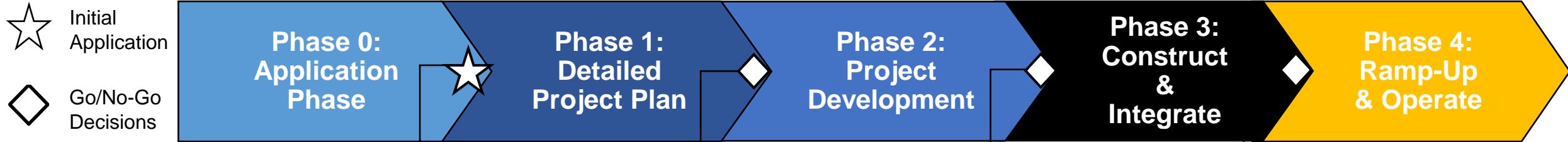


Specific dates to be included in the Funding Opportunity Announcement. All dates approximate and subject to change.

*Applicants must submit an eligible concept paper to be eligible to submit a full application, which will be requested following the concept paper notifications.

**An encourage/discourage notification does not preclude any entity that submitted a concept paper from submitting a full application.

OCED's Project Management Approach



OCED will evaluate projects across the following areas throughout their lifecycles:



Independent project review teams will conduct regular project evaluations in accordance with the office's center of excellence for demonstration project management oversight.





Community Benefits Plan



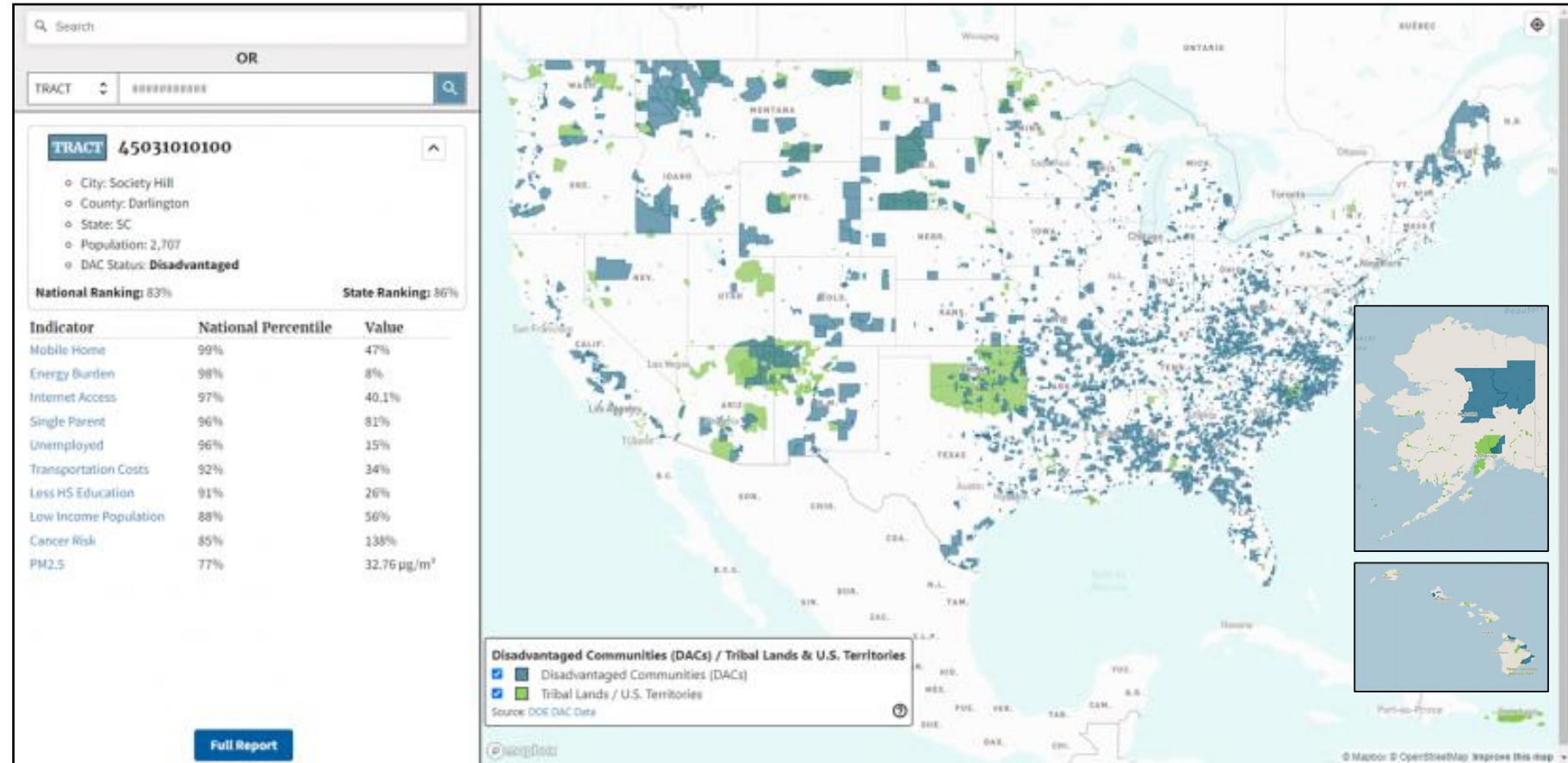
Energy and Environmental Justice in OCED

OCED seeks to become a center of excellence in advancing energy and environmental justice in large-scale demonstration projects within the federal government to support an equitable energy transition

- All OCED-funded projects incorporate requirements for Community and Labor engagement; and Quality Jobs and Workforce Development; Diversity, Equity, Inclusion, and Accessibility; and the Energy and Environmental Justice and Justice40 Initiative.
- OCED collaborates with offices across DOE to support and implement the Justice40 Initiative.
- All OCED programs are covered under the Justice40 Initiative.

Climate and Economic Justice Screening Tool

- DOE has developed a tool to identify Disadvantaged Communities (DACs) as part of the Justice40 Initiative.
- To be considered a DAC, a census tract must rank in the 80th percentile of the cumulative sum of 36 burden indicators and have at least 30% of households classified as low-income.



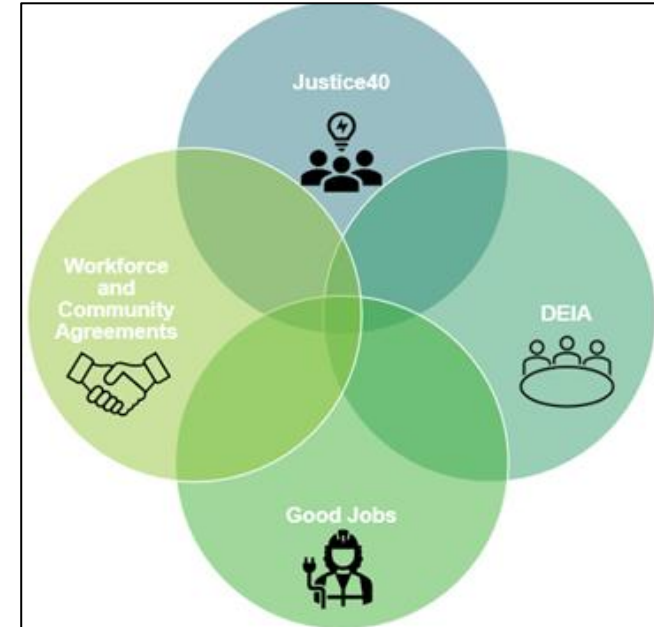
Community Benefits Plan

DOE will require a Community Benefits Plan for all applicants that will guide meaningful engagement throughout the project lifecycle.

- The Community Benefits Plan (CBP) includes 4 standard topics:
 - Community and labor engagement;
 - Workforce development and quality jobs;
 - Diversity, equity, inclusion, and accessibility; and,
 - The Justice40 initiative.

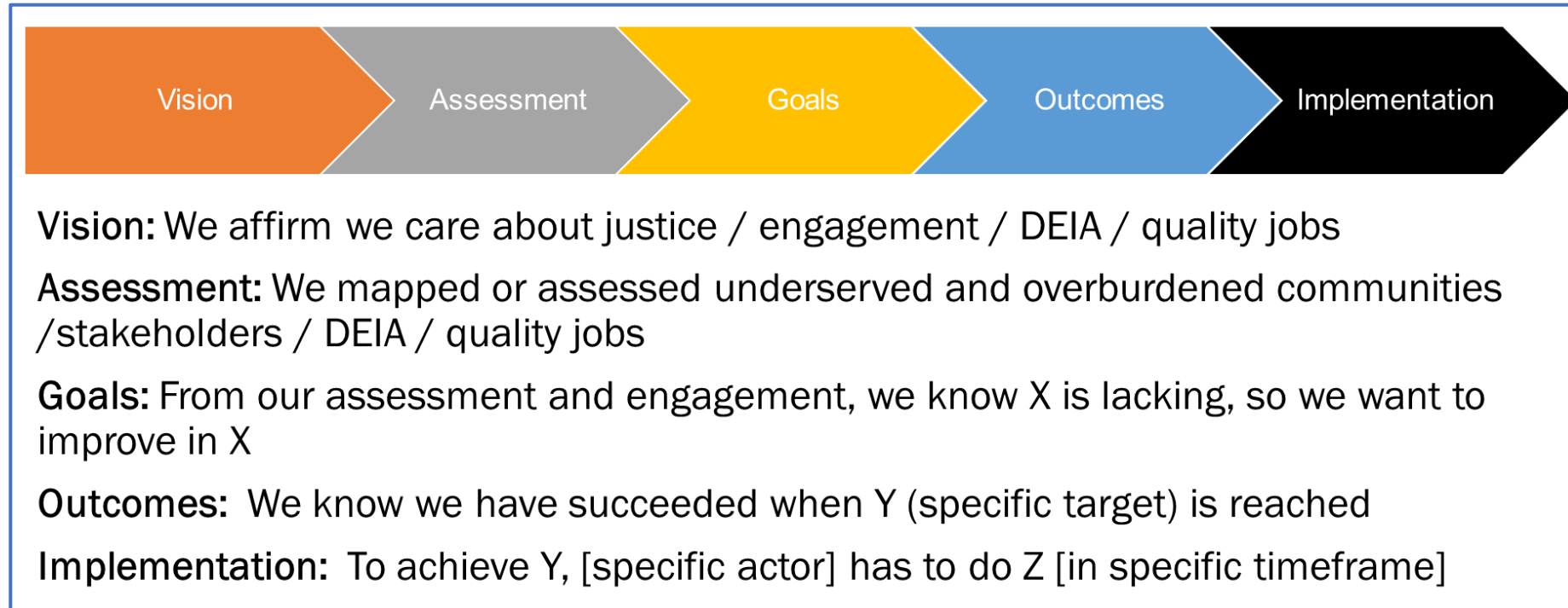
Section 50161 of the IRA* supports this goal by giving priority to projects that support **benefit creation for the greatest number of people in nearby communities:**

- The CBP will be implemented and updated during each project phase and will be included in go / no-go decision criteria.
- Guidance documents to support applicants in developing their plans will be provided with the FOA.



*Section 50161(d)(2) of the Inflation Reduction Act.

Community Benefits Overview

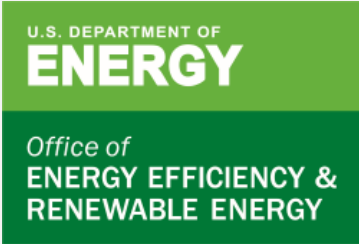


- Detailed guidance and examples on creating each section of the Community Benefits Plan will be provided under the application documents section on the OCED Exchange website at <https://oced-exchange.energy.gov>.
- Additional information on Community Benefits Plans can be found here: <https://www.energy.gov/clean-energy-infrastructure/community-benefits-plan-frequently-asked-questions-faqs>
- Applicants are encouraged to read these resources prior to writing their Community Benefits Plan.



Context, Considerations, and Next Steps

Industrial Resources Across DOE



Industrial Efficiency & Decarbonization Office (IEDO)

accelerates the innovation and adoption of cost-effective technologies that eliminate industrial GHG emissions.

Advanced Materials & Manufacturing Technologies Office (AMMTO)

advances energy-related materials and manufacturing technologies to increase domestic competitiveness and build a clean, decarbonized economy.

- R&D on early- and mid-stage technologies along with lab- and pilot-scale demonstrations
- Institutes and hubs fostering public-private partnerships on specific technical challenges
- A robust suite of technical assistance programs




Office of Manufacturing & Energy Supply Chains (MESC) strengthens and secures manufacturing and energy supply chains needed to modernize the nation's energy infrastructure and support a clean and equitable energy transition.

- Programs for domestic clean manufacturing and workforce capabilities
- Opportunities for small and medium enterprises and communities



Opportunity Context for this Notice of Intent

italics denote currently closed; visit the links for more on future opportunities

	Research	Development	Demonstration	Deployment
Relevant Funding Across the Department	<u>FY22 Multi-topic FOA: Next Generation Materials & Manufacturing Technologies</u> AMMTO Concept Papers: 2/3/23		 <u>Carbon Capture Demonstration FEED Studies</u> OCED & the Office of Fossil Energy and Carbon Management	<u>Industrial Assessment Centers Program - Centers Of Excellence FOA</u> MESCC Applications: 2/17/2023
	<u>Small Business Innovation Research</u> IEDO + AMMTO		<u>Hydrogen Hubs</u> OCED & the Hydrogen & Fuel Cell Technologies Office	<u>Advanced Clean Energy Manufacturing and Recycling Grant Program NOI</u> MESCC FOA forthcoming
	<u>Industrial Efficiency and Decarbonization FOA</u> IEDO			<u>Onsite Energy Technical Assistance Partnerships NOI</u> IEDO FOA forthcoming

To learn more about related funding opportunities at the Department, regularly check out:

- [The Clean Energy Infrastructure programs page](#) and
- [The Energy Efficiency and Renewable Energy \(EERE\) Funding Opportunities page](#).

Registration Checklist



[View the Notice of Intent](#) and ensure you are registered and up-to-date with the following systems:

System	Purpose
OCED Funding Opportunity Exchange	Online application portal where OCED anticipates posting this Funding Opportunity Announcement and where you can self-nominate to be a reviewer.
Grants.gov	Registering in Grants.gov will allow you to receive automatic updates when amendments to Funding Opportunity Announcements are posted.
System for Award Management (SAM.gov)	SAM.gov hosts the process for designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called a Marketing Partner Identification Number (MPIN), which are important steps in the process.
FedConnect	Federal government acquisition and grants portal that is integrated with Grants.gov and SAM – register here after setting up your registration in SAM.gov.

Thank you!

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

Email: OCED_Industrial@hq.doe.gov



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