



OCED

Office of Clean Energy Demonstrations



Overview of OCED & Industrial Emissions Demonstration Program

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Office of Clean Energy Demonstrations

U.S. Department of Energy

Disclaimer

As DOE is actively engaged in financial assistance 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), Funding Opportunity Announcements (FOA)] or entertain requests for a specific outcome or benefit related to a financial assistance activity.*



Office of Clean Energy Demonstrations (OCED) Mission and Scope









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 has been tapped by the Bipartisan Infrastructure Law and the Inflation Reduction Act for

\$25+ billion*

touching multiple project areas, and is collaborating closely with experts across the Department.

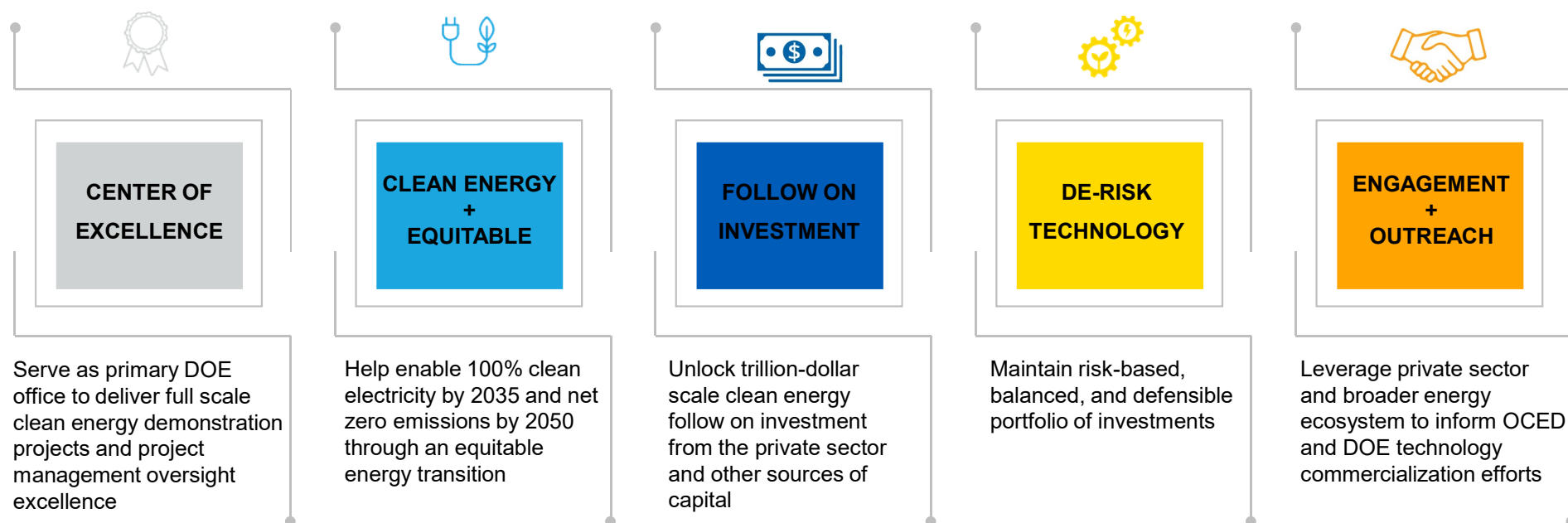
 Industrial Emissions	 Advanced Reactors
 Regional Hydrogen Hubs	 Carbon Management
 Long Duration Energy Storage	 Upgrading Grids
 Rural & Remote Communities	 Clean Energy on Mine Lands

**\$21.6B from Bipartisan Infrastructure Law and \$5.8B from the Inflation Reduction Act*

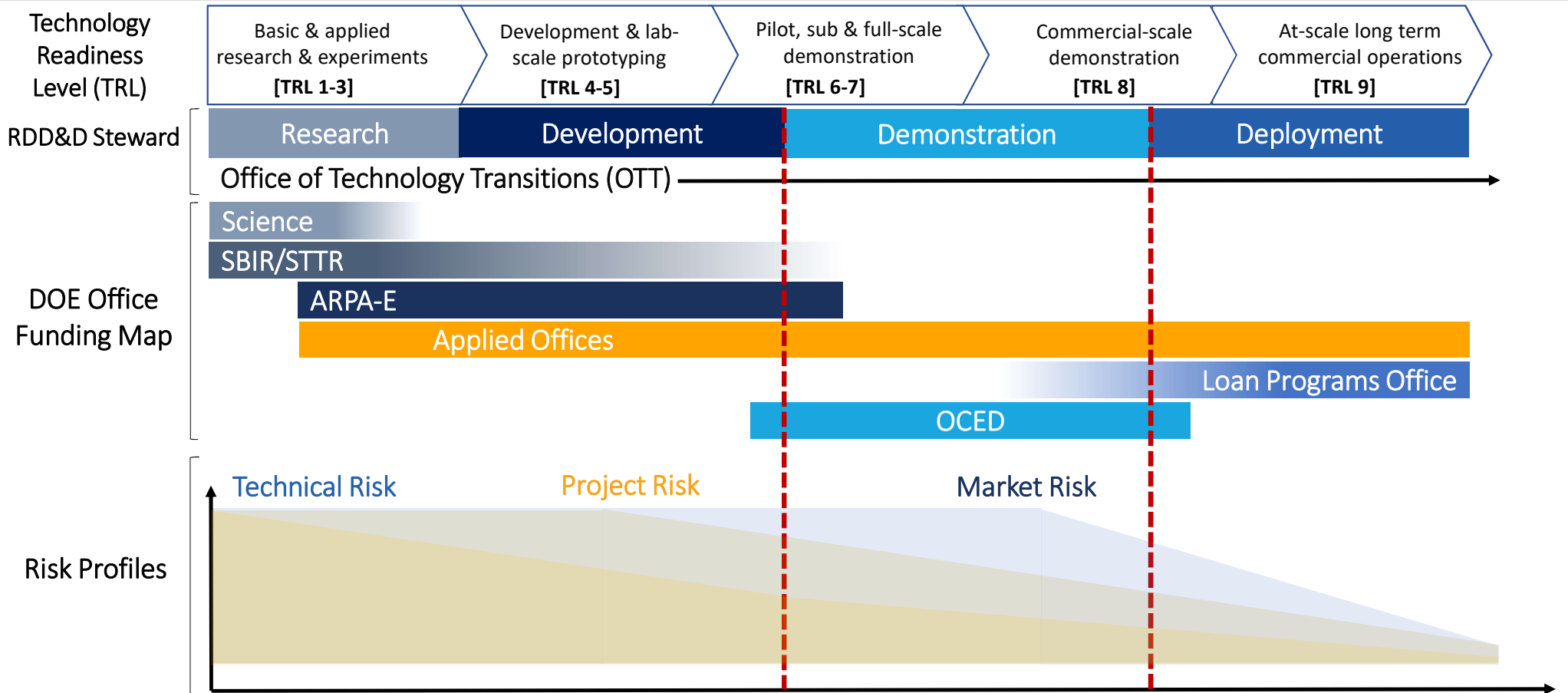


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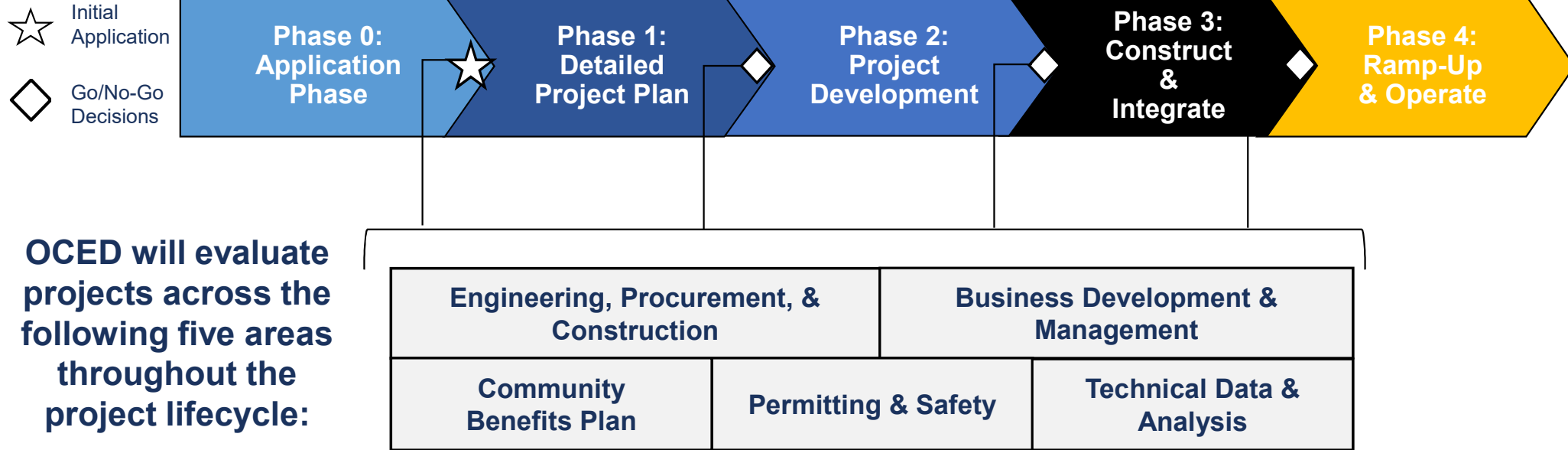
OCED Mandate



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



OCED Project Management Approach



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





Industrial Emissions Demonstrations



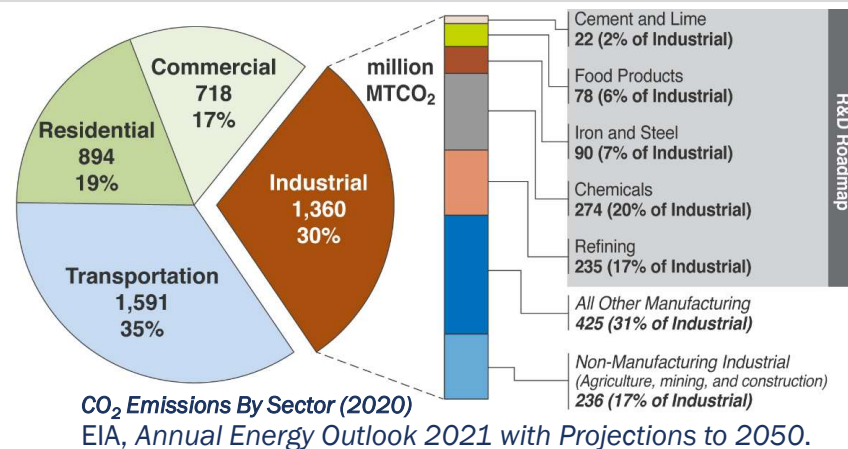
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Roadmap for Industrial Decarbonization

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

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

- diversity of energy inputs
- wide array of industrial processes and operations
- emissions are not just from fuel for heat/power (64%), but also feedstock/processes (32%)
{EIA 2018}



PILLARS NEEDED FOR INDUSTRIAL DECARBONIZATION

Energy Efficiency	Industrial Electrification	Low Carbon Fuels, Feedstocks, and Energy Sources	Carbon Capture, Utilization and Storage (CCUS)
Provides the largest 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.



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OCED Industrial Emissions Demonstration Focus

Focused by legislation on energy-intensive industries and high-emissions industrial production processes

iron & steel | chemicals / refining | cement / concrete | glass / ceramics | metals | pulp & paper | food & beverage | others

Emphasizes leveraging principles of Industry 4.0 and sustainable manufacturing practices

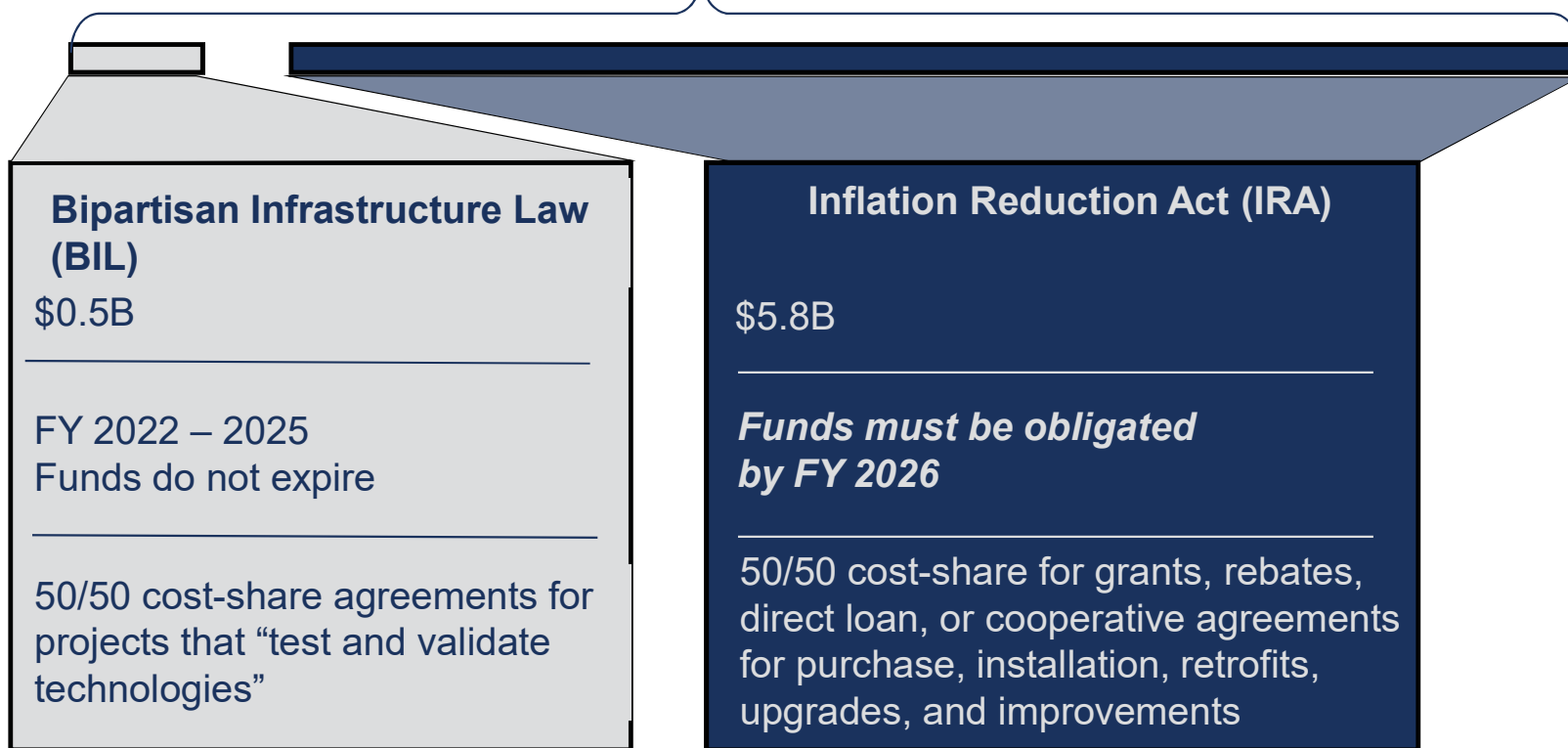
digitization | smart manufacturing | advanced data analytics | others



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Industrial Emissions Demonstration Funding Overview

\$6.3B for industrial emissions demonstration projects



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** to support an equitable energy transition.

- All OCED-funded projects incorporate requirements from Energy and Environmental Justice and Justice40 Initiative; Diversity, Equity, Inclusion, and Accessibility; Community, Labor, and Tribal engagement; and Quality Jobs
- OCED collaborates with offices across DOE to support and implement Justice40 Initiative
- All OCED programs are covered under [the Justice40 Initiative](#)
- [View DOE's interactive map to identify underserved communities](#)



Additional OCED Resources

- OCED Website and Newsletter Sign-up
[Office of Clean Energy Demonstrations | Department of Energy](#)
- OCED Exchange (RFIs, NOIs, and FOAs)
[Financial Opportunities: Funding Opportunity Exchange \(energy.gov\)](#)

EXAMPLES



Hydrogen Hubs

- [Notice of Intent](#)
- [Funding Opportunity Announcement](#)
- [Community Benefits Plan Guidance](#) (found under “Application Forms and Templates”)



Carbon Capture Demonstration Projects

- [Notice of Intent](#)
- [Funding Opportunity Announcement](#)



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Additional Industrial Decarbonization Activities Across DOE

Office of Energy Efficiency and Renewable Energy (EERE)

Advanced Manufacturing Office

Industrial Efficiency & Decarbonization Office

Advanced Materials and Manufacturing Technologies Office

- 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:
wide-bandgap semiconductors | circular economy | cybersecurity
process intensification | composites | smart manufacturing
additive manufacturing | water | critical materials
COMING SOON: industrial electrification
- A robust suite of technical assistance programs:
Better Plants | energy management-related assistance
onsite generation programs | software tools and resources

manufacturing.energy.gov

Office of Manufacturing and Energy Supply Chains (MESC)

- Projects aimed at strengthening and securing manufacturing and energy supply chains
- Programs that develop clean domestic manufacturing and workforce capabilities
- An emphasis on opportunities for small and medium enterprises and communities in energy transition

energy.gov/mesc



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Thank You!

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

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