



OCED
Office of Clean Energy Demonstrations

THE OFFICE OF CLEAN ENERGY DEMONSTRATIONS



Industrial Demonstrations Program
G. Jeremy Leong
Program Manager

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





Industrial Demonstrations

IDP is part of the Industrial Emissions Reduction Technology Development Program which was enacted to:



Increase industry/manufacturing competitiveness in US



Increase US industrial technology export competitiveness



Achieve emissions reduction in nonpower industrial sectors

Received funding from the Bipartisan Infrastructure Law and Inflation Reduction Act to demonstrate transformational technologies to decarbonize energy-intensive industries.

- Solidify a first-mover advantage for U.S. industry in low- and net-zero carbon manufacturing
- Substantiate the market for clean products through high-impact, replicable solutions
- Build broadly shared prosperity for American workers and communities

Current Status

- Issued \$6B funding announcement in March 2023
- Concept papers were due in April 2023
- Full applications due by August 11, 2023

Program Update: Industrial Demonstrations Program

The Industrial Demonstrations Program offers up to **\$6 billion** for transformational, advanced industrial facilities that can achieve deep decarbonization in energy intensive industrial subsectors.

Project Types



Near-Net-Zero Facility Builds



Facility-level Installations and Overhaul Retrofits



System Upgrades and Retrofits for Critical Unit Operations or Single Process Lines

Program Priorities

Deep decarbonization, by demonstrating significantly less carbon-intensive industrial production processes

Timeliness, through rapid technology demonstrations that can address emissions in the near-term, meet funding horizons, and be replicated by fast followers

Market viability, with projects spurring follow-on investments and partnerships between buyers and sellers of materials

Community benefits, tailored through labor and community engagement; diversity, equity, inclusion, and accessibility; environmental justice; and opportunities for communities



6/1
Encourage / Discourage Notifications



8/11 @ 5 p.m. ET
Applications Due



Winter 2023/2024
Selections Announced



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Concept Paper Overview

		Total Projects	Total DOE Funding Requested	Total Private Sector Cost Share
Concept Paper Requests	Chemicals and Refining	153	\$25.1B	\$46.9B
	Iron, Steel, and Steel Mill Products	40	\$11B	\$22.7B
	Cement and Concrete	53	\$5.8B	\$8.3B
	Pulp and Paper	26	\$3.4B	\$3.8B
	Aluminum	17	\$2.6B	\$2.8B
	Glass	17	\$2.3B	\$2.4B
	Cross-cutting	26	\$3.5B	\$3.7B
	Other Energy-Intensive Industrial Processes	79	\$8.1B	\$9.1B
Totals	Total Requests	411	>\$60B	~\$100B
	Total Encouraged	130		
	Total Target Awards	22-65	\$6B	



Collaboration Strategies for Industrial Decarbonization

OCED Scope



Regional Clean Hydrogen Hubs (\$8 billion)



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



Advanced Reactor Demonstrations (\$2.5 billion)



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



Carbon Management (\$7 billion)



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



Industrial Demonstrations (\$6.3 billion)



New Demonstration Projects (\$50 million – and hopefully more!)



U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy



U.S. DEPARTMENT OF ENERGY | Fossil Energy and Carbon Management

Significant interagency potential to maximize funding and support for related sectors

H2: BIL 40314 - \$8B
45V PTC

CCUS: BIL 41004 - \$2.5B
45Q TC

Small & Medium Manufacturers:
BIL 40521 - \$400M
BIL 40209 - \$750M

Multiple: 48C ITC - \$10B
LPO Title 17
EPA Low-embodied Emissions Construction Materials
EPA Climate Pollution Reduction Grants
Buy Clean



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Overview: Pathways to Commercial Liftoff



Pathways to Commercial Liftoff represents a new DOE-wide approach to deep **engagement between the public and private sectors**.

The initiative's goal is **catalyzing commercialization and deployment of technologies** critical to our nation's net-zero goals.

Pathways to Commercial Liftoff started in 2022 to:

- **collaborate, coordinate, and align with the private sector** on what it will take to commercialize technologies
- provide a **common fact base** on key challenges (e.g., cost curve)
- establish a **live tool and forum** to update the fact base and pathways

Publications and webinar content can be found at **[Liftoff.energy.gov](https://liftoff.energy.gov)**

Feedback is eagerly welcomed via **liftoff@hq.doe.gov**



Questions?

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