

THE OFFICE OF **CLEAN ENERGY DEMONSTRATIONS**

Overview

The U.S. Department of Energy (DOE) established the Office of Clean Energy Demonstrations (OCED) to help scale the emerging technologies needed to tackle our most pressing climate challenges and achieve net zero emissions by 2050.

OCED received more than \$25 billion in funding from the Bipartisan Infrastructure Law and Inflation Reduction Act to deliver clean energy demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized system.

Center of Excellence

As a center of excellence for project management oversight, OCED will apply lessons learned from past DOE demonstrations and the private sector to enhance how it oversees projects. OCED will also support other offices to ensure a consistent approach to implementing these projects across DOE.

OCED seeks to become a center of excellence in advancing energy and environmental justice in largescale demonstration projects to support an equitable clean energy transition. OCED will ensure the workforce and local communities are a key part of the solution to build an equitable clean energy future.

Project Portfolio

- Regional Clean Hydrogen Hubs (HŽHubs) \$8 billion
- Carbon Management (CM) Regional Direct Air Capture Hubs, Carbon-Capture Demos & Large-Scale Pilot Projects \$7 billion
- **Industrial Demonstrations (IDP)** \$6.3 billion
- **Advanced Reactor Demonstration Projects (ARDP)** \$2.5 billion

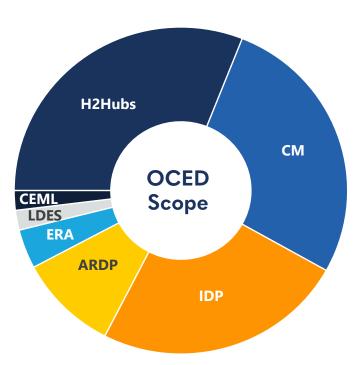
- **Energy Improvements in Rural** or Remote Areas (ERA) \$1 billion
- **Long-Duration Energy Storage** Demonstrations (LDES) \$505 million
- Clean Energy Demonstrations on Mine Land (CEML) \$500 million

What Does OCED Do?

OCED is a multi-technology office with demonstrations that include clean hydrogen, carbon management, industrial decarbonization, advanced nuclear reactors, long-duration energy storage, demonstration projects in rural or remote areas and on current and former mine land, and more.

The technologies in OCED's portfolio face significant barriers to scale. OCED's role is to address these barriers and help de-risk them. Central to OCED's approach is consistent engagement with a wide range of stakeholders and pursuit of projects that advance an equitable transition by providing benefits to communities across America.

Most of OCED's projects are structured as collaborative partnerships that use cost share agreements. OCED will provide up to 50 percent of the funding in its public-private partnerships, assisting its industry partners with the early steps to commercialization and deployment.



Industrial Demonstrations Program

Program Info

Funding Amount: \$6.3 billion

Overview: The Industrial Demonstrations Program (IDP) will accelerate decarbonization projects in energyintensive industries and provide American manufacturers a competitive advantage in the race to lead the world in low- and net-zero carbon manufacturing. This program will be a central driver in helping solidify a "first-mover" advantage for U.S. industry, bolstering its competitiveness globally for decades into the future all while creating good-paying jobs for American workers, offering opportunities for broadly shared prosperity in communities, and enabling a clean, more equitable future for all Americans.

U.S. industry is a backbone of the nation's economy, producing the goods critical to everyday life, employing millions of Americans in high-quality jobs, and providing an economic anchor for thousands of communities. Yet the energy- and carbon-intensity of the sector, which contributes nearly one third of the nation's primary energy-related carbon dioxide emissions (U.S. Energy Information Administration), poses a significant challenge as the economy transitions towards net-zero because:

- Industry uses many energy sources including natural gas, petroleum, coal, electricity, and renewable sources including biomass.
- Industry has a wide array of industrial processes and operations.
- Emissions come from not only heat and power fuel but also from feedstocks and processes.

Demonstrating the technical and commercial viability of first- or early-of-a-kind commercialscale industrial decarbonization approaches will promote widespread technology implementation and drive a U.S. edge in low- and net-zero carbon manufacturing while helping to substantiate a market for low-carbon products.

This program focuses on the highest emitting industries where decarbonization technologies can have the greatest impact, such as iron and steel, aluminum, cement and concrete, chemicals and refining, glass, and other energy-intensive industrial processes.



Contact Info

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More Resources

The OCED Industrial Demonstrations Program is part of a larger cohort of DOE offices and programs that work together to reduce industrial emissions and improve industrial competitiveness, including:

Advanced Materials and Manufacturing Technologies Office: <u>energy.gov/eere/amo</u>

Hydrogen and Fuel Cell Technologies Office: energy.gov/eere/fuelcells/hydrogen-and-fuel-celltechnologies-office

Industrial Efficiency and Decarbonization Office: energy.gov/eere/iedo

Office of Fossil Energy and Carbon Management: energy.gov/fecm

Office of Manufacturing and Energy Supply Chains: energy.gov/mesc