THE OFFICE OF CLEAN ENERGY DEMONSTRATIONS

OCED
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.

Project Oversight

To ensure the success of its projects, OCED is focused on demonstration project management oversight excellence. 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 also seeks to ensure excellence as it advances energy and environmental justice in large-scale 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

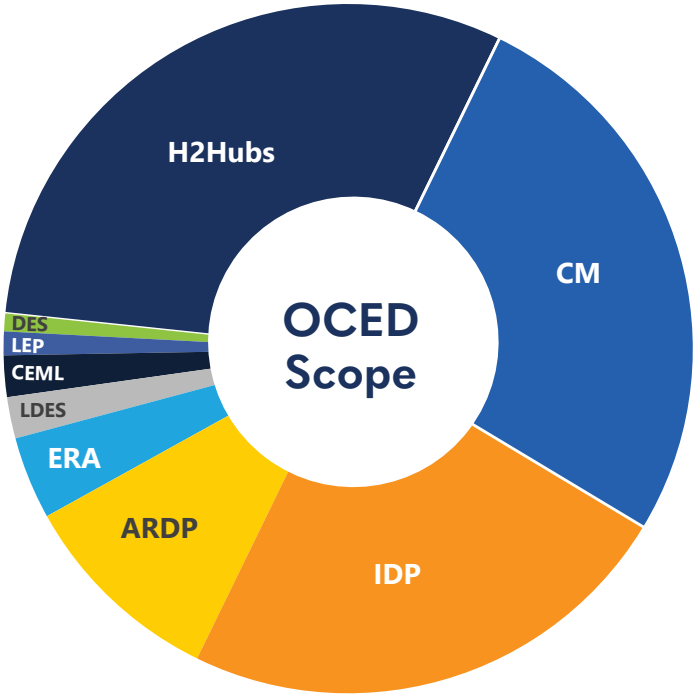
- Regional Clean Hydrogen Hubs (H2Hubs) $8 billion
- Carbon Management (CM) Regional Direct Air Capture Hubs, Carbon-Capture Demos & Large-Scale Pilot Projects $7 billion
- Industrial Demonstrations (IDP) $6.3 billion
- Advanced Reactor Demonstration Projects (ARDP) $2.5 billion
- Energy Improvements 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
- Liftoff Enabling Programs (LEP) $133 million
- Distributed Energy Systems Demonstrations (DES) $50 million

What Does OCED Do?

OCED is a multi-technology office with demonstrations that include clean hydrogen, carbon management, industrial decarbonization, distributed energy systems, 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.



Carbon Capture Demonstrations Projects Program

Funding Amount: $2.5 billion

Program Info

Overview: The Carbon Capture Demonstrations Projects Program aims to increase U.S. manufacturing competitiveness in the global transition to a clean energy economy by demonstrating commercial-scale carbon capture technologies, pipeline transportation, and geologic storage infrastructure. Funding for this program will support six facilities to capture carbon dioxide from coal electric generation facilities (two projects), natural gas electric generation facilities (two projects), and industrial facilities (two projects).

Large-scale deployment of carbon management technologies is critical to addressing the climate crisis. Reaching our nation's energy transition goals will require capturing and sequestering 400 to 1,800 million tonnes of carbon dioxide annually by 2050. Commercial demonstration of advanced carbon capture technologies integrated with reliable transportation and storage infrastructure will be required for the widespread deployment of these carbon management technologies.

The Carbon Capture Demonstrations Projects Program focuses on integrated carbon capture, transport, and storage technologies and infrastructure that can be readily replicated and deployed at power plants and major industrial sources of carbon emissions, such as cement, pulp and paper, iron, and steel.

Through this program, OCED will fund projects that demonstrate substantial improvements in the efficiency, effectiveness, cost, and environmental performance of carbon capture technologies for power, industrial, and other commercial applications.

Contact Info

Email: OCED@hq.doe.gov

Website: energy.gov/oced/carbon-capture-demonstration-projects-program

More Resources

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

Carbon Management Interactive Graphic: edx.netl.doe.gov/carbonstorage/interactive-graphic/