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.

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 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

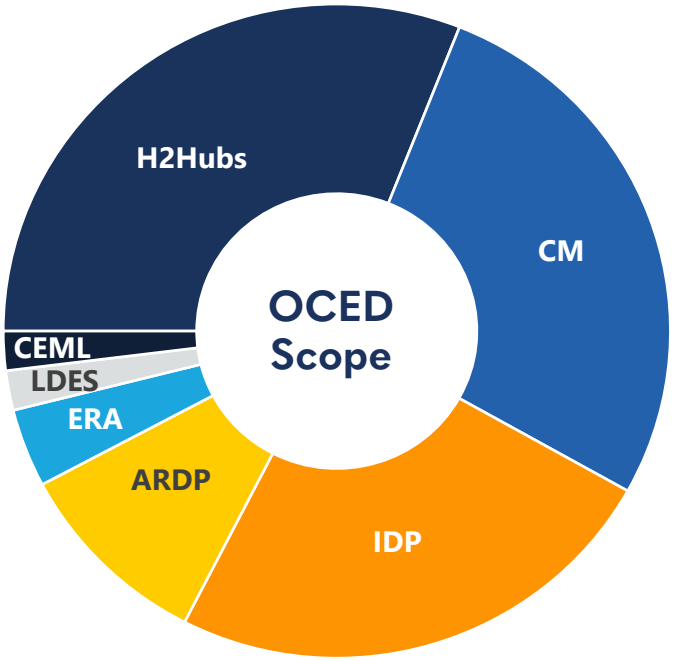
- Regional Clean Hydrogen Hubs (H2Hubs) $8 billion
- Carbon Management (CM) Regional Direct Air Capture Hubs, Carbon-Capture Demos & Large-Scale Pilot Projects $7 billion
- Industrial Demonstrations (IDP) $6.3 billion
- Advanced Reactor Demonstration Projects (ARDP) $2.5 billion
- Energy Improvements 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

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.



Carbon Capture Large-Scale Pilot Programs

Funding Amount: $937 million

Program Info

Overview: The Carbon Capture Large-Scale Pilot Programs will develop transformational technologies to significantly improve the efficiency, effectiveness, costs, emissions reductions, and environmental performance of coal and natural gas use, including in manufacturing and industrial facilities and prove them out at pilot-to-commercial scale in partnership with industry and communities.

New carbon capture technologies are emerging from the past two decades of research and development, and the next step is testing them at larger scales to help attract the capital necessary for their demonstration and deployment. Funding for this program will provide the support needed to test these novel technologies under relevant conditions in both the power and industrial sectors.

The program will focus on community-informed projects that support the cost-effective, efficient, equitable, and environmentally responsible at-scale expansion of carbon capture operations to enable industry adoption. Funding for this program will also help to protect industrial jobs and boost job creation in communities across America.

Contact Info

Email: OCED@hq.doe.gov

Website: energy.gov/oced/carbon-capture-large-scale-pilot-programs

More Resources

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

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