



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

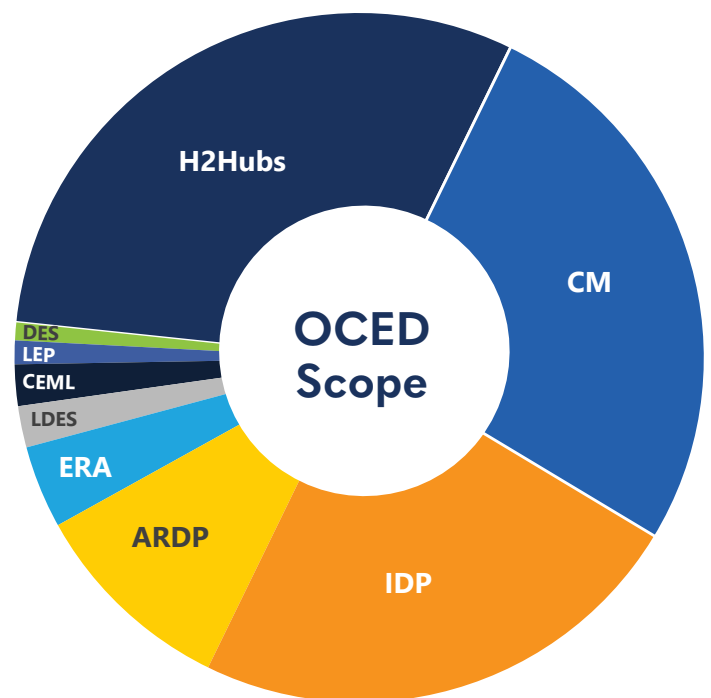
 Regional Clean Hydrogen Hubs (H2Hubs) \$8 billion	 Energy Improvements in Rural or Remote Areas (ERA) \$1 billion
 Carbon Management (CM) Regional Direct Air Capture Hubs, Carbon-Capture Demos & Large-Scale Pilot Projects \$7 billion	 Long-Duration Energy Storage Demonstrations (LDES) \$505 million
 Industrial Demonstrations (IDP) \$6.3 billion	 Clean Energy Demonstrations on Mine Land (CEML) \$500 million
 Advanced Reactor Demonstration Projects (ARDP) \$2.5 billion	 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.



Regional Direct Air Capture Hubs

Funding Amount: \$3.5 billion

Program Info

Overview: The Regional Direct Air Capture (DAC) Hubs program will develop four domestic regional direct air capture hubs. Each hub will demonstrate a direct air capture technology or suite of technologies at commercial scale with the potential for capturing at least 1 million metric tonnes of carbon dioxide annually from the atmosphere and storing it permanently in a geologic formation or through its conversion into products.

Carbon dioxide removal is a critical tool for cleaning up legacy carbon pollution that is already causing significant climate change related damage in the form of more intense storms, floods, and wildfires. This program provides transformative investments needed to scale up the commercial use of direct air capture technologies that can remove carbon dioxide, which will bring jobs to regions across the country and deliver a healthier climate for all Americans.

This DAC Hubs Program will demonstrate the capture, processing, delivery, and sequestration or end-use of captured carbon. The program will also create pathways to develop a regional or interregional carbon network to facilitate sequestration or carbon utilization.

Recognizing that DAC is a nascent technology, OCED will work to ensure that the DAC and carbon dioxide removal industries deliver community benefits and minimize negative impacts, while transparently and rigorously addressing carbon transport and durable storage topics.



Contact Info

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More Resources

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

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

