OCED
Office of Clean Energy Demonstrations

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.

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

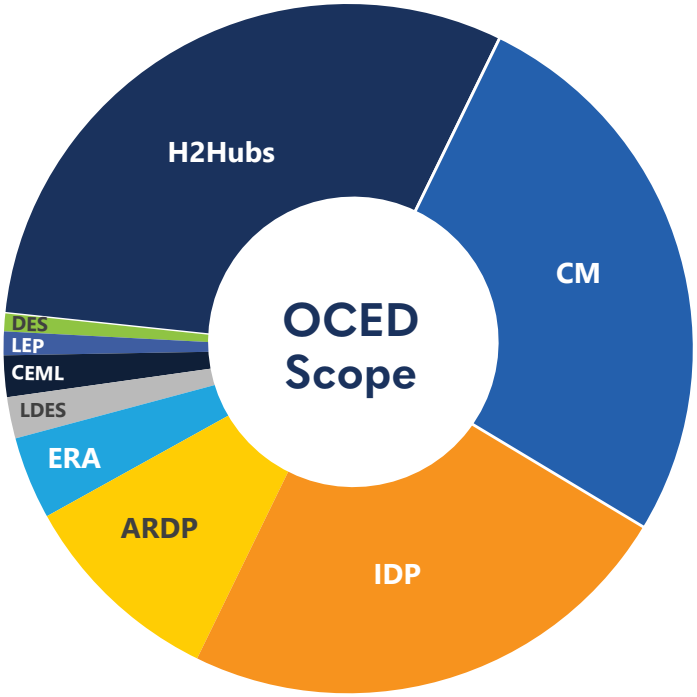
- Regional Clean Hydrogen Hubs (H2Hubs) $8 billion
- Carbon Management (CM) Regional Direct Air Capture Hubs, Carbon-Capture Demos & Large-Scale Pilot Projects $7 billion
- Industrial Demonstrations (IDP) $6.3 billion
- Advanced Reactor Demonstration Projects (ARDP) $2.5 billion
- Energy Improvements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



Regional Clean Hydrogen Hubs

Funding Amount: $8 billion

Program Info

Overview: The Regional Clean Hydrogen Hubs program–or H2Hubs–includes up to $7 billion to establish six to 10 regional clean hydrogen hubs across America. As part of a larger $8 billion clean hydrogen hub program funded through the Bipartisan Infrastructure Law, the H2Hubs will be a central driver in helping communities across the country benefit from clean energy investments, good-paying jobs, and improved energy security.

Clean hydrogen hubs will create networks of hydrogen producers, consumers, and local connective infrastructure to accelerate the use of clean hydrogen as an energy carrier that can deliver or store tremendous amounts of energy.

The H2Hubs will form the foundation of a national clean hydrogen network that will contribute substantially to decarbonizing multiple sectors of the economy, especially in tough to decarbonize sectors like heavy industries (steel and cement production) and heavy-duty transportation.

Matching the scale-up of clean hydrogen production to a growing regional demand is a key pathway to achieving large-scale, commercially viable hydrogen ecosystems. The H2Hubs will enable this pathway by demonstrating low-carbon intensity and economically viable hydrogen-based energy ecosystems that can replace existing carbon-intensive processes.

The production, processing, delivery, storage, and end-use of clean hydrogen, including innovative uses in the industrial sector, are crucial to DOE's strategy for achieving our nation's climate goals.

Contact Info

Email: OCED@hq.doe.gov

Website: energy.gov/OCED/H2Hubs

More Resources

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

H2 Matchmaker: Online resource to assist clean hydrogen suppliers and users with self-identifying collaborators and opportunities to expand development toward regional clean hydrogen hubs. Visit: energy.gov/eere/fuelcells/h2-matchmaker