



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.

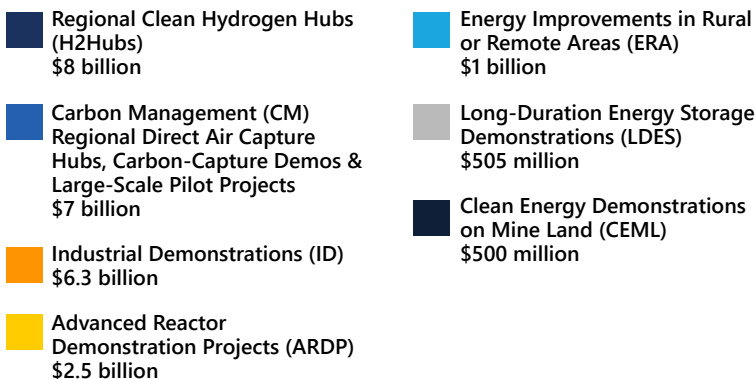
OCED received more than \$25 billion in funding from the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) to deliver clean energy demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized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

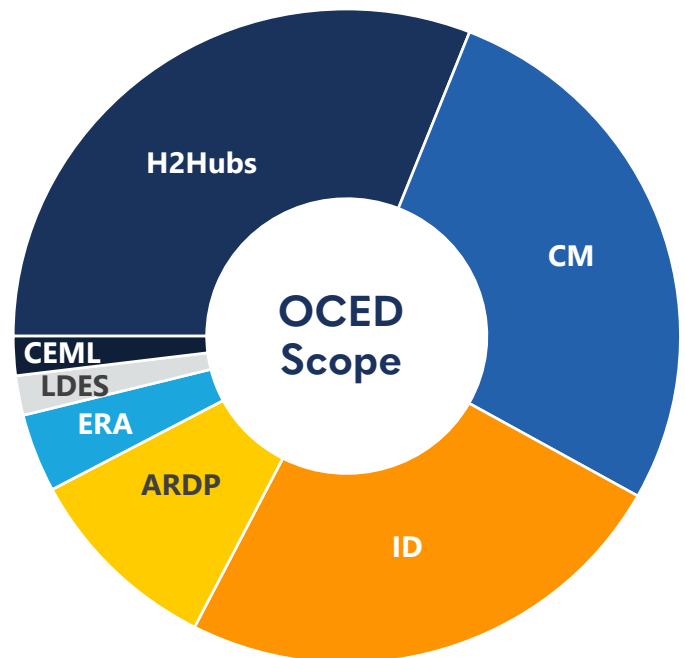


What Does OCED Do?

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.

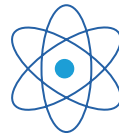
Most of OCED's projects are structured as collaborative partnerships that use cost share agreements. OCED will provide up to 50 percent of the funding in its public-private partnerships, assisting its industry partners with the early steps to commercialization and deployment.



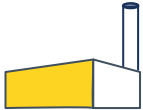
OCED Programs



Regional Clean Hydrogen Hubs
Amount: \$8 billion
 Purpose: Build six to 10 regional clean H2Hubs across the country to create networks of hydrogen producers, consumers, and local connective infrastructure to accelerate use of hydrogen.



Advanced Reactor Demonstration Projects
Amount: \$2.5 billion
 Purpose: Support design, licensing, construction, and operation of two advanced nuclear reactors to assure next generation American nuclear reactor designs can transition from concept to demonstration: TerraPower Natrium Reactor and X-Energy Xe-100.



Industrial Demonstrations Program
Amount: \$6.3 billion (from BIL and IRA)
 Purpose: Establish commercial-scale demonstration projects that test and support technologies to reduce greenhouse gas emissions in energy-intensive industries.



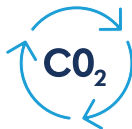
Energy Improvements in Rural or Remote Areas
Amount: \$1 billion
 Purpose: Improve resilience, safety, reliability, and availability of energy in rural or remote areas and increase environmental protection from adverse impacts of energy.



Regional Direct Air Capture (DAC) Hubs
Amount: \$3.5 billion
 Purpose: Develop four domestic Regional DAC Hubs to accelerate commercialization and demonstrate the processing, transport, secure geologic storage, and conversion of CO₂ captured from the atmosphere.



Long-Duration Energy Storage Demonstrations
Amount: \$505 million
 Purpose: Develop long-duration energy storage demonstrations to validate new technologies and enhance the capabilities of customers and communities to integrate grid storage more effectively.



Carbon Capture Demonstration & Large-Scale Pilot Projects
Amount: \$3.5 billion
 Purpose: Develop carbon capture pilot projects and demonstration projects to improve costs, emissions reductions, and environmental effects from coal and natural gas.



Clean Energy Demonstrations on Mine Land
Amount: \$500 million
 Purpose: Demonstrate technical and economic feasibility of up to five clean energy projects on current and former mine land.

OCED Mandate



CENTER OF EXCELLENCE

Serve as primary DOE office to deliver full scale clean energy demonstration projects and project management oversight excellence



CLEAN ENERGY & EQUITABLE

Help enable 100% clean electricity by 2035 and net zero emissions by 2050 through an equitable energy transition



FOLLOW ON INVESTMENT

Unlock and scale trillion-dollar clean energy follow on investment from the private sector and other sources of capital



DE-RISK TECHNOLOGY

Maintain risk-based, balanced, and defensible portfolio of investments



ENGAGEMENT & OUTREACH

Leverage private sector and broader energy ecosystem to inform OCED and DOE technology commercialization efforts