



**OCED**  
Office of Clean Energy Demonstrations

# THE OFFICE OF CLEAN ENERGY DEMONSTRATIONS



**Clean Energy Demonstration Program on  
Current and Former Mine Land (CEML)  
Funding Opportunity Announcement  
Informational Webinar**

## Disclaimer

As a reminder, only publicly available information provided by DOE in Funding Opportunity Announcements (FOA) will be discussed in this webinar.

Attending this webinar and watching the recording is completely voluntary and will not impact future application selections.

This document is not a rule or regulation, and the recommendations it contains may not apply to a particular situation based upon the individual facts and circumstances. If there are any inconsistencies between a specific FOA and the statements in this document or webinar, the FOA is the controlling document.

Additionally, materials will not be collected or accepted through this meeting that are marked or otherwise identified as confidential, proprietary, or business sensitive.

**Any questions on the CEML FOA should be directed to: [minelandFOA@hq.doe.gov](mailto:minelandFOA@hq.doe.gov)**



# Agenda for Today's Webinar

**Introduce the Office of Clean Energy Demonstrations (OCED)**

**Overview of Clean Energy Demonstration on Current and Former Mine Land (CEML) Program FOA**

**Information on Eligibility, Applications, and Administrative Requirements**

**Concluding Remarks and Next Steps**





# Office of Clean Energy Demonstrations (OCED)



# OCED's Mission

Deliver clean energy technology **demonstration projects at scale** in partnership with the **private sector** to **accelerate deployment, market adoption**, and the **equitable transition** to a decarbonized energy system.”



# OCED Scope



Regional Clean Hydrogen Hubs (\$7 billion)



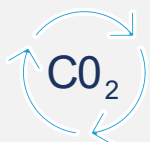
Long-Duration Energy Storage Demonstrations (\$505 million)



Advanced Reactor Demonstrations (\$2.5 billion)



Energy Improvements in Rural or Remote Areas (\$1 billion)



Carbon Management (\$7 billion)



Clean Energy Demonstrations on Mine Land (\$500 million)



Industrial Demonstrations (\$6.3 billion)



New Demonstration Projects (\$50 million – and hopefully more!)



# **Clean Energy Demonstration Program on Current and Former Mine Land (CEML) Funding Overview**

# CEML Provision Overview

This program will demonstrate the **technical and economic viability** of carrying out clean energy projects on **current and former mine land**.

- **\$500M**, available through **2026**
- Up to **five (5) clean energy projects**, with at least two (2) projects being solar
- Emphasis on **economic development** and **environmental justice**, lasting beyond chosen projects
- Projects must be **geographically diverse**



# Award Information

- Up to \$450 million in funding available in this funding opportunity
- The award size will be **at least \$10 million** and **no more than \$150 million**, in federal funds.
- DOE is requiring that the non-federal cost share be at least **50% of the total project costs** for demonstration projects.
- The anticipated maximum project period is **7 years**, and the scope of the proposed project would determine that specific project period within the maximum project period.
- The applicant will establish **4 (four) phases** for the proposed project. DOE will initially fund Phase 1. Each subsequent phase is dependent on a Go/No-Go determination by OCED based on the recipient's performance.



# CEML FOA Areas of Interest (AOIs)

*One Topic Area is divided into four Areas of Interest (AOIs)*

## Topic Area 1

\$450M Total Federal Share | \$10M - \$150M per Project | Up to 5 Projects | 4-7 years

### Area of Interest A

#### **Solar with / without battery energy storage on current mine land**

This AOI includes PV solar projects with or without battery energy storage on *current* mine land. This AOI encourages projects that lead to near net-zero mining operations.

##### **Example Project**

Utility scale 50MW to 150MW ground mounted PV Solar project to offset mine operations load and sell excess energy to the grid.

### Area of Interest B

#### **All technologies on current mine land**

This AOI includes one or more of the following technologies on *current* mine land: Solar; microgrids; geothermal; direct air capture; fossil-fueled electricity generation with carbon capture, utilization, and sequestration; energy storage; advanced nuclear technologies.

This AOI encourages projects that demonstrate how active mines can adopt clean energy technologies to reduce GHG emissions of mining operations.

##### **Example Project**

100 MW geothermal power plant which uses geothermal resource at the mine, to power mine operations, and sells excess power to the grid.



# CEML FOA Areas of Interest (AOIs)

*One Topic Area is divided into four Areas of Interest (AOIs)*

## Topic Area 1

\$450M Total Federal Share | \$10M - \$150M per Project | Up to 5 Projects | 4-7 years

### Area of Interest C

#### **Solar PV with / without battery storage on former mine land**

This AOI includes PV solar projects with or without battery energy storage on *former* mine land. This AOI encourages projects that leverage former mine land to deploy solar projects that support the economic revitalization of disadvantaged communities. In addition, this AOI encourages clean energy projects that are aggregations of multiple solar projects/sites.

##### **Example Project**

An aggregate of 20MW solar PV sites deployed across multiple communities that feature a community ownership business model, interconnected to the grid.

### Area of Interest D

#### **All technologies on former mine land**

This AOI includes one or more of the following technologies on *former* mine land: Solar; microgrids; geothermal; direct air capture; fossil-fueled electricity generation with carbon capture, utilization, and sequestration (CCUS); energy storage; advanced nuclear technologies. This AOI encourage projects that leverage former mine land for clean energy projects that support the economic revitalization of disadvantaged communities.

##### **Example Project**

Geothermal district heating project combined with PV Solar and storage to power reclamation activities of a former coal mine and sell excess energy to the grid.



# OCED Project Management Structure

OCED projects follow a structured, phased management approach that the application should manage in accordance with these phases. The approach includes the following four phases:

Phase 1 – Detailed Project Planning

Phase 2 – Project Development, Permitting, and Financing

Phase 3 – Installation, Integration, or Construction

Phase 4 – Ramp-Up and Sustained Operations



# Questions and Answers

**Area of Interest B states in 2.3.3 that “This AOI includes one or more of the following technologies on current mine land: Solar; microgrids; geothermal; direct air capture; fossil-fueled electricity generation with carbon capture, utilization, and sequestration; energy storage; advanced nuclear technologies. This includes a combination of a solar and another technology listed above.” Does DOE intend to require projects submitted under AOI B to include solar and another technology or can it just be the other technology?**

- Proposals can include any of the technologies listed, or technologies listed in combination including with solar.

# Questions and Answers

## **Are costs for a project incurred prior to the award eligible for funding?**

- As mentioned in Section A.1.2 in the Funding Opportunity Announcement, pre-award costs ARE NOT allowable unless they have received written approval from the federal awarding agency, through the DOE Grants and Agreements Officer. Pre-award costs are costs incurred prior to the effective date of the federal award directly pursuant to the negotiation and in anticipation of the federal award where such costs are necessary for efficient and timely performance of the scope of work. Pre-award expenditures are made at the applicant's risk.

## **Are funded projects eligible to also receive the Investment Tax Credit and/or the Production Tax Credit?**

- Inflation Reduction Act (IRA) tax credits (including the Investment Tax Credit and the Production Tax Credit) are not considered federal funds for purposes of establishing cost-share. Projects funded under this FOA may be eligible to receive such tax credits, provided they meet the criteria for the relevant credit(s).
- As mentioned in Section 5.6.2.2 of the Funding Opportunity Announcement, project proposals must disclose all funding sources, including IRA tax incentives, in the Project Overview section of the Technical Volume.

# Questions and Answers

## **Can reclamation activities be funded under this program?**

- Although DOE will fund site preparation activities including some reclamation activities as necessary to successfully deploy the clean energy project being proposed, the department will not consider projects that are primarily about reclamation of sites.
- All tasks that make up the Total Project Cost should be included and described in the project proposal.
- Under Section 5.6.2.2, Section C (Business Development and Management) if applicable, the applicant must provide a plan which shows that the site selected is suitable and reclaimed, or will be reclaimed, according to the appropriate standards and land use reclamation requirements. Reclamation activities required to prepare and develop the land as part of the proposed clean energy project may be eligible for funding.

# CEML Eligibility Requirements

In accordance with BIL Section 40342, eligible projects will demonstrate a “clean energy project” on a current or former “mine land” site with a reasonable expectation of commercial viability.



The term “Clean Energy Project” means a project that demonstrates 1 or more of the following technologies:

- A. Solar
- B. Micro-grids
- C. Geothermal
- D. Direct air capture
- E. Fossil-fueled electricity with CCUS
- F. Energy storage, including pumped-storage hydropower and compressed air
- G. Advanced nuclear

# Questions and Answers

## **Can you expand on the definition of micro-grids?**

- The U.S. Department of Energy (DOE) defines a microgrid as “a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected or island-mode.”

## **For energy storage, does this include thermal energy storage?**

- Yes, thermal energy storage is included under the 'Energy Storage' category.

# Questions and Answers

**I understand qualifying technologies include solar; micro-grids; geothermal; direct air capture; fossil-fueled electricity generation with carbon capture, utilization, and sequestration; energy storage, including pumped storage hydropower and compressed air storage; advanced nuclear technologies. Could clean fuel solutions count as energy storage?**

- The clean energy technologies that are considered eligible for this program and Funding Opportunity Announcement, are limited to how the term "clean energy project" is defined in the statute (BIL 40432).
- As stated above, Congress instructed the department to consider energy storage projects and identified two specific types of energy storage solutions. These examples are not the only possible eligible energy storage projects. For other energy storage technologies not listed in statute, applicants should substantiate how their technology is an energy storage technology. Therefore, DOE may consider clean fuels as energy storage, but only if the primary intent of the technology is to provide energy storage.



# CEML Eligibility Requirements

In accordance with BIL Section 40342, eligible projects will demonstrate a “clean energy project” on a current or former “mine land” site with a reasonable expectation of commercial viability.

## “Mine Land” is defined as:

- Land subject to Title IV and V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) or Mining Law of 1872
  - Active, inactive, and abandoned mine land
  - Coal on Public and Private land
  - Hard Rock on Public and Private land (if tied to Mining law of 1872)



# CEML Eligibility Requirements

## Surface Mining Control and Reclamation ACT (SMCRA) of 1977

- Applicants to the FOA claiming eligibility through SMCRA must show that the mine or former mine is subject to either title IV and V of SMCRA.
- An applicant may provide copies of a Title V permit from the applicable permitting authority or demonstrate that the application site is in the Title IV database maintained by the Office of Surface Mining Reclamation and Enforcement as indicia of eligibility under titles IV and V of SMCRA.

## Mining Law of 1872

- Applicants to the FOA claiming eligibility through the Mining Law of 1872 must show that the current or former mine land originated from a claim or patent under the Mining Law of 1872.
- An application based upon a patented claim should provide a title search tying the site to a patented claim under the Mining Law of 1872.
- Unpatented claims should produce claims filed with the appropriate body having authority to receive claims including the Bureau of Land Management and county records.



# Questions and Answers

**Is there a map or a list of sites that shows which sites are either SMCRA or Mining Law of 1872?**

- Unfortunately we have not identified a map or list of sites.

**Will an entire "clean energy project" qualify if only part of the underlying land/parcels meet the requirement of the "mine land" definition?**

- As mentioned in Section 4.0 in the Funding Opportunity Announcement (Eligibility Information), as long as the "clean energy project" is substantially located on eligible mine land, it will be considered under this program.



# Questions and Answers

**Does this program cover hard rock mines on private land (since Mining Law of 1872 only applies to public land)?**

- If the original title of the private land can be tied back to the Mining Law of 1872, then the project will be considered eligible under this program.

**How close to the mine land does a project need to be to be eligible? Does the ground actually have to be disturbed or if a mine is on a much larger piece of land (that was once all owned collectively by a mining company), is that considered mine land?**

- As long as the "clean energy project" is substantially located on eligible mine land, it will be considered under this program.
- Therefore, the land does not need to be disturbed in order to be considered for this program.

# CEML Eligibility Requirements

- The following types of entities are **eligible** to participate as an **applicant or subrecipient** of this **FOA**:
  - Institutions of higher education
  - Non-profit entities
  - For-profit entities
  - Indian Nations [DOE Order 144.1, 7.a]
  - State and local governmental entities
  - Incorporated Consortia,
  - Unincorporated Consortia
- Federal agencies and instrumentalities (other than DOE), DOE/NNSA FFRDC, and Non-DOE/NNSA FFRDC, are eligible to participate only as a **subrecipient**, and are not eligible to apply as a prime recipient.
- The FFRDC effort, in aggregate, shall not exceed 1% of the total estimated cost of the project, including the applicant's and the FFRDC's portion of the effort.



# Concept Papers and Applications

This application process includes two parts: Concept Paper and Application

- **Concept Paper** - The Concept Paper must address all the requirements described in FOA Section 5.6.1. DOE will review only the authorized number of pages. Please note that all statements of expertise provided will need to be substantiated in the Application submission, see Section 5.6.2. DOE makes an independent assessment of each Concept Paper based on the criterion in Section 6.1.1. DOE will encourage a subset of applicants to submit Applications and other applicants will be discouraged from submitting an Application, see Section 7.1.1.
- **Application** - Only applicants who have submitted an eligible Concept Paper will be eligible to submit an Application.

# Concept Papers

Each applicant must provide the following information as part of the **Concept Paper**:

- A. Cover Page
- B. Demonstration Plan & Project Team Description
- C. Community Benefits Plan
- D. Management and Organization

Each Concept Paper must be limited to a single project site or an aggregated set of proposed project sites. The Concept Paper must conform to the requirements listed below and should be no more than 10 pages.

*DOE will notify applicants of its determination to encourage or discourage the submission of an Application through OCED eXCHANGE.*



# Application: Technical Volume

A full application must include a **Technical Volume**, which includes the following components that are further detailed below:

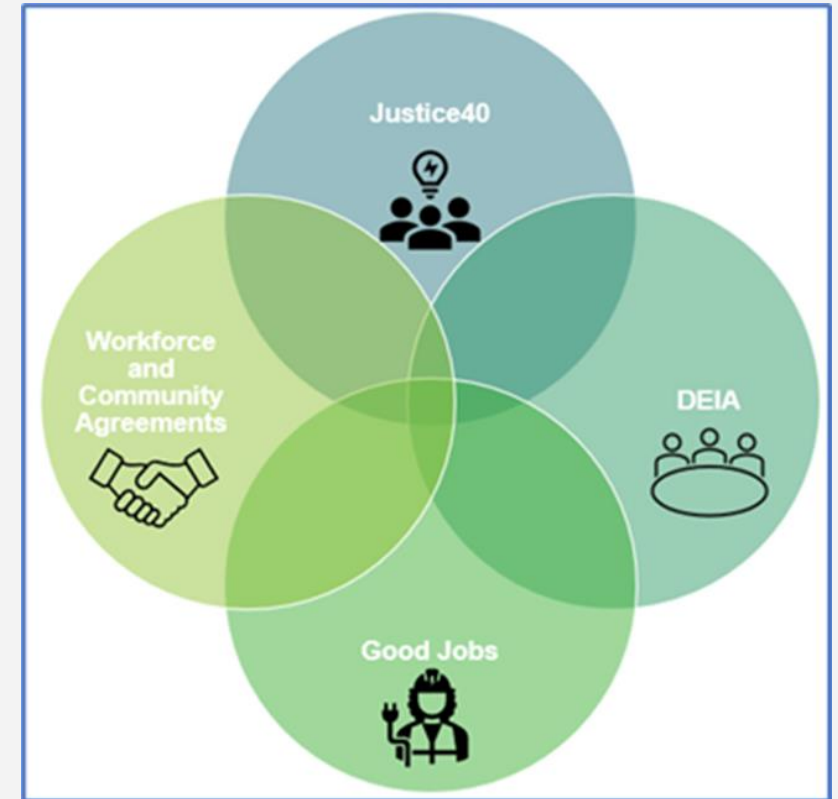
- A. Cover Page
- B. Project Overview
- C. Business Development and Management
- D. Work Plan
- E. Engineering, Procurement, Construction and Operations
- F. Safety and Occupational Health, Cybersecurity, Permitting, and Regulatory Requirements
- G. Risk Analysis and Mitigation
- H. Techno-Economic Analysis and Life Cycle Analysis Projections



# Application: Community Benefits Plan

## Projects are expected to:

- Support meaningful community and labor engagement
  - Invest in the American workforce
  - Advance diversity, equity, inclusion, and accessibility
  - Contribute to the President's goal that 40% of overall benefits of certain federal investments flow to disadvantaged communities (the Justice40 Initiative)
- 
- Applications must include a Community Benefits Plan (CBP) describing how the project will incorporate the four objectives above
  - For projects impacting multiple communities, CBPs should address all four objectives across all communities



# Questions and Answers

## **Do communities need to be in disadvantaged communities to be eligible for the program?**

- Communities do not need to be identified as disadvantaged communities to be eligible for this program - eligibility is related to eligible 'clean energy projects' and eligible 'mine land,' as defined in statute. This program is covered under the Justice40 Initiative, which directs 40% of the overall benefits of certain types of federal investments – including investments in clean energy and energy efficiency – to flow to disadvantaged communities. The distribution of benefits is measured across all OCED projects, meaning individual projects are not required to direct 40% of benefits to disadvantaged communities. In line with the intent and goals of the Justice40 Initiative, all projects are asked to maximize benefits and mitigate harms to any potentially impacted community, and to track and report these impacts to DOE. For more on the Justice40 Initiative and DOE's definition of disadvantaged communities, see <https://www.energy.gov/diversity/justice40-initiative>.

# Submission Information

## Submissions must adhere to the following requirements:

- Submitted in Adobe PDF format unless stated otherwise
- Written in English, formatted on 8.5 x 11 inch
- Margins not less than 1 inch
- Calibri typeface, black font, and font size 12 point or larger
- A control number will be issued when an applicant begins the OCED eXCHANGE application process. The control number must be prominently displayed on the upper right corner of the header of every page and included in the file name (i.e., Control Number\_Applicant Name\_Application)
- Page numbers must be included in the footer of every page
- The maximum file size that can be uploaded to the OCED eXCHANGE website is 50 megabytes



# Concept Paper and Application Review Information

## **Concept Papers:**

- Overall FOA Responsiveness and Viability of the Project (Weight: 100%)

## **Applications will be reviewed based on 5 criteria:**

- Technical Merit, Innovation and Impact (Weight: 20%)
- Financial and Market Viability (Weight: 25%)
- Workplan (Weight: 15%)
- Management and Team Project Partners (Weight: 20%)
- Community Benefits Plan (Weight: 20%)



# Selections and Awards

- A Selection Official may consider the following in determining which Applications to select for award negotiations:
  - Technical merit
  - The Federal Consensus Board's recommendations
  - Program policy factors
  - The amount of funds available in arriving at selections for this FOA
- DOE will notify applicants of its determination via a notification letter by email to the technical and administrative points of contact designated by the applicant in OCED eXCHANGE. The notification letter will inform the applicant whether or not its Application was selected for award negotiations.
- Applicants do not receive an award until award negotiations are complete and the Grants and Agreements Officer executes the funding agreement.

# Upcoming CEML Program Deadlines

Program Announcement	Timing (approximate and subject to change)
Concept Paper Submission Deadline *Submission required to proceed to the Application phase	5/11/2023, 5pm ET
Applications Submission Deadline	8/31/2023, 5pm ET

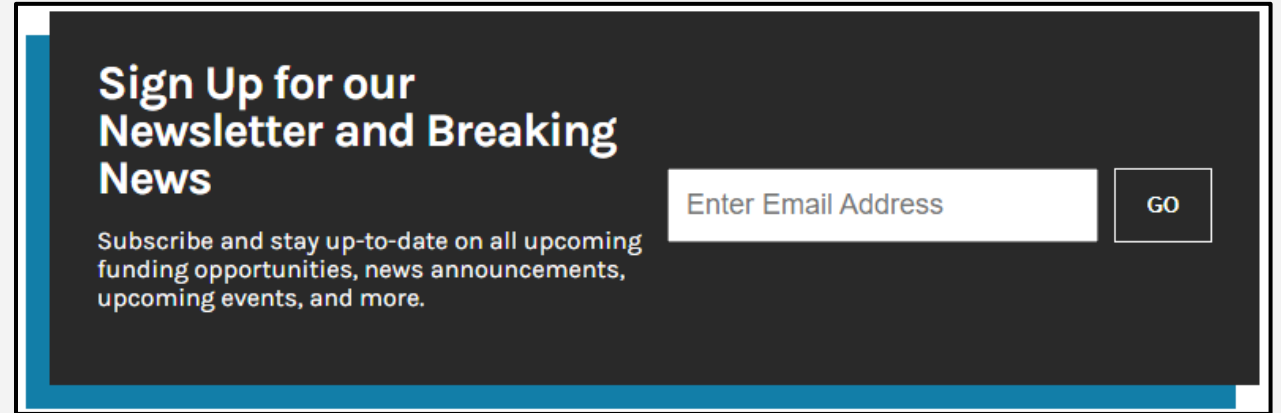




# Concluding Remarks and Next Steps

# OCED Resources

OCED Website and Newsletter:  
<https://www.energy.gov/oced/office-clean-energy-demonstrations>

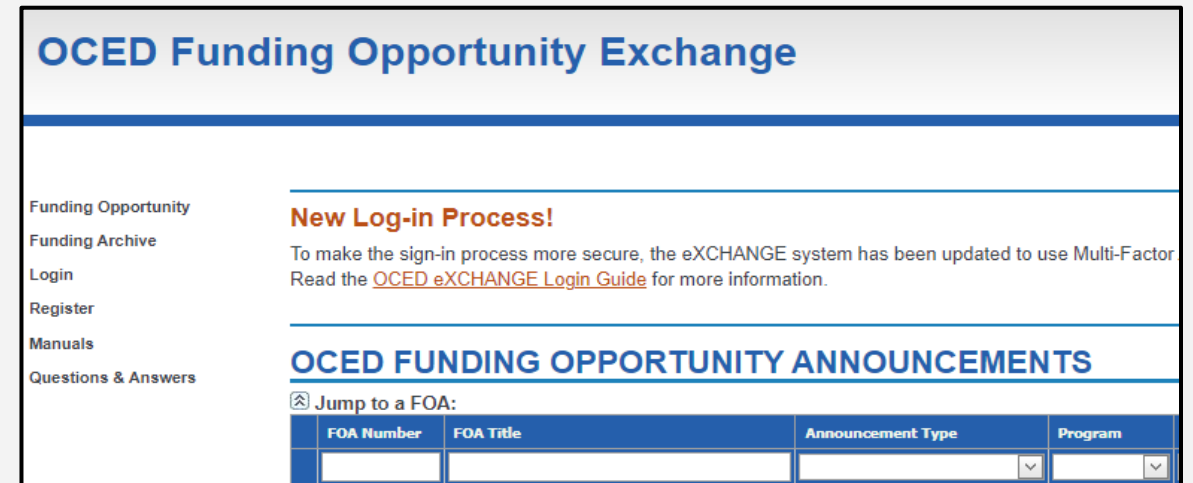


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OCED Exchange (e.g., RFIs, NOIs, FOAs):  
<https://oced-exchange.energy.gov/Default.aspx>



**OCED Funding Opportunity Exchange**

Funding Opportunity  
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Manuals  
Questions & Answers

**New Log-in Process!**  
To make the sign-in process more secure, the eXCHANGE system has been updated to use Multi-Factor. Read the [OCED eXCHANGE Login Guide](#) for more information.

**OCED FUNDING OPPORTUNITY ANNOUNCEMENTS**

Jump to a FOA:

FOA Number	FOA Title	Announcement Type	Program
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# Thank you!

- For more information, please visit: [energy.gov/OCED](https://energy.gov/OCED)
- For questions regarding FOA content and requirements please email: [minelandFOA@hq.doe.gov](mailto:minelandFOA@hq.doe.gov)
- For technical issues or questions regarding OCED eXCHANGE please email: [OCED-ExchangeSupport@hq.doe.gov](mailto:OCED-ExchangeSupport@hq.doe.gov)

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