Office of Clean Energy Demonstrations

Notice of Intent No.: DE-FOA-0003474

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This is a Notice of Intent to Issue: Notice of Funding Opportunity No.: DE-FOA-0003473

Point Source Carbon Capture Large-Scale Pilots, Commercial Demonstrations, & Networked Demonstration Commercialization

The Office of Clean Energy Demonstrations (OCED) intends to issue a Notice of Funding Opportunity (NOFO) entitled "Point-Source Carbon Capture Large-Scale Pilots, Commercial Demonstrations, & Networked Demonstration Commercialization" in the last quarter of calendar year 2024. The goal of this NOFO is to support the design, stakeholder and community engagement, construction, and operation of point-source capture large-scale pilots and commercial scale demonstrations while also supporting the development of localized carbon management networks needed for commercial scale.

In the context of this NOFO, we define "localized carbon management networks" to be interconnected carbon management assets, including CO2 emitters, geologic storage sites, and pipeline transportation, contained in a subregional area we envision as approximately 50 radial miles from some central location.

	ANTICIPATED PROGRAM SCOPE AND CHARACTERISTICS			
Total DOE Program Funding	Up to $1.3 billion across all topic areas			
Topic Area (TA)	TA1a Carbon Capture and Storage (CCS) Demonstration at a Coal Electric Generation Facility	TA1b CCS Demonstration at an Industrial Facility Not Purposed for Electric Generation	TA2 Transformative Carbon Capture Large-Scale Pilots	TA3 Networked CCS Demonstration Planning & Commercialization
Funding by TA (DOE total)	$300 million – 400 million	$175 million – 350 million	$100 million - $450 million	$60 million -100 million
Project Funding	Up to $400 million Federal share, 50%	Up to $350 million Federal share, 50%	Up to $135 million Federal share, 30%	Up to $30 million Federal share, 50%

	minimum non-Federal cost share	minimum non-Federal cost share	minimum non-Federal cost share	minimum non-Federal cost share
Project Count (estimated)	Up to 1 project	Up to 2 projects	Up to 4 projects	Up to 4 projects
Key Objectives	• Demonstrate commercial-scale (plants with at least 100 MWe capacity) capture, transport, and storage of CO2 from at least one-unit operations of a new or existing, domestic coal facility. • Serve as a potential "anchor tenant" for future nearby Carbon Capture and Storage (CCS) developments. • Provide necessary cost and performance data to inform future investment decisions in coal applications.	• Demonstrate commercial-scale (facilities emitting greater than 300,000 tons CO2/yr) capture, transport, and storage of CO2 from at least one process slipstream at a new or existing domestic industrial facility. • Serve as a potential "anchor tenant" for future nearby CCS developments. • Provide necessary cost and performance data to inform future investment decisions in CCS in industrial applications.	• Test novel technologies integrated at a large-scale and under real exhaust conditions in both the power and industrial sector to de-risk transformational carbon capture approaches with improved performance and reduced capture cost. • Gain the operational data needed to understand the technical and performance risks of the technology before the application.	• Support the integrated, iterative planning and business development of localized carbon management networks leveraging shared transport and storage among multiple relevant entities that agree to work together. • Demonstrate how integrated system design considering emitters, transport, and storage can reduce the transport and storage fee incurred by emitters, making CCS a more economic option for new facilities.

Statutory Authority

The Infrastructure Investment and Jobs Act (IIJA, Public Law 117-58), also known as the Bipartisan Infrastructure Law (BIL) authorized the Office of Clean Energy Demonstrations (OCED).[1] This NOFO is supported under both the Carbon Capture Demonstrations program and the Carbon Capture Large-Scale Pilots program, which were added to the Energy Policy Act of 2005 by the Consolidated Appropriations Act of 2021, and which were funded by the IIJA.[2]

Background

OCED was established to build on DOE's expertise in clean energy research and development and expand DOE's scope to fill a critical gap in demonstration of first-of-a-kind technologies. OCED's mission is 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 energy system.

[1] IIJA Section 41201 (42 U.S.C. § 18861).
[2] Consolidated Appropriations Act, 2021 (Pub. L. 116-260, Dec. 27, 2020, 134 Stat. 2528), as codified at 42 U.S.C. § 16292(b); IIJA Section 41004(b).

OCED is a multi-technology office with funding for demonstrations that include advanced nuclear, clean hydrogen, carbon management, long-duration energy storage, industrial decarbonization, and more. With a clear role in commercializing critical clean energy technologies, OCED fills the gap between the research, development, and early-stage demonstration projects, including those within DOE technology offices, and initial deployments supported by the private sector and/or other DOE programs, such as the Loan Programs Office.

OCED's portfolio in the carbon management sector includes the $2.537 billion Carbon Capture Demonstrations program and the $937 million Carbon Capture Large-Scale Pilots program. The Carbon Capture Demonstrations program will continue to fund projects that contribute to the development of six integrated demonstrations of carbon capture and storage, as directed under the Energy Policy Act of 2005.[3] Each demonstration will capture, transport (if required), utilize and/or geologically sequester carbon dioxide (CO_2) at a commercial scale from a new or existing facility. The Carbon Capture Large-Scale Pilots program will continue to fund projects that further the development of transformational carbon capture technologies "not yet advanced to the point of being tested under real operational conditions at commercial scale," as directed by the statute.[4]

The Carbon Capture Demonstrations program has released two prior funding opportunities: DE-FOA-0002738 was released in September of 2022 and announced $189 million to eight eligible FEED studies, and DE-FOA-0002962 was released in February of 2023 and announced over $890 million to three eligible carbon capture commercial-scale demonstrations. The Carbon Capture Large-Scale Pilots program has released one prior funding opportunity: DE-FOA-0002963 was released in February of 2023 and announced over $304 million to four eligible projects. Additionally, OCED expects the Program to complement and build on several existing DOE programs supporting early-stage design, engineering, and characterization work. This includes multiple active and solicitations within FECM supporting geologic sequestration development (CarbonSAFE), transport infrastructure planning and design, and point source capture technology development through small pilots and Front-End Engineering & Design (FEED) studies.

Baseline Assessment

While technology readiness of CCS approaches is mature in many settings, adoption readiness varies substantially depending on the component of the technology system being discussed (i.e., the capture technology, the transport technology, and the storage technology), the type of emissions being targeted, and the location of the development. The summary of this baselining provided below is informed by the Department of Energy's *Pathways to Commercial Liftoff* reports on Carbon Management and Industrial Decarbonization. For more detail on these technology baseline assessments, please see these reports.

Technology Readiness Level (TRL) of Carbon Capture, Transport, and Storage:[5] The carbon capture industry is, in effect, an integration of three separate technologies, each at different technological readiness levels. The technologies for CCS already exist, with 26 commercial-scale projects in operation globally and an estimated 45 CCS facilities in operation

[3] 42 U.S.C. § 16292(b)(4)(A).
[4] 42 U.S.C. § 16292(a)(1).
[5] https://www.directives.doe.gov/directives-documents/400-series/0413.3-EGuide-04/@@images/file

or in development in the United States today[6]. This includes the coal-fired PetraNova W.A. Parish Project[7], the SaskPower Boundary Dam project[8], and the Air Products and Chemicals hydrogen steam methane reforming (SMR) facility[9]. However, many of these carbon capture technology approaches - and others - have not been tested on the flue gases and at the scales targeted by this program, which reduces their TRL. Most non-solvent carbon capture approaches (e.g., membrane-based, sorbent-based, hybrid, molten salt, cryo-based) are at TRL 4-6 today regardless of flue stream. Although nascent, these non-solvent approaches may have high potential for performance improvements long-term.

The technology readiness of carbon transport by pipeline is mature, as there are currently about 5,500 miles of CO2 pipeline in the US today. While we have learned from the experience of nearly 50 years of transporting CO2, there is ongoing research to continue to understand how CO2 composition variations can affect pipelines.

Carbon storage is technically feasible and mature today in specific locations. However, each site has unique uncertainties and risks that require a technical subsurface evaluation to define and confirm the adequacy of the complex geology for the proposed project site(s). Much of this work is supported today by the existing and active DOE CarbonSAFE program, managed by the Office of Fossil Energy and Carbon Management (FECM).

The integration of carbon capture, transport, and storage reduces the TRL of the system as a whole. The integration of CCS into process operations in facilities has been demonstrated at scale, but this has not yet occurred in the industrial areas of focus for this program. The plants in the U.S. operating CCS today are doing so on ethanol production, natural gas processing, ammonia production, hydrogen SMR, and coal-fired power generation. The TRL of integrated CCS industrial facilities is currently 6-7, and while there are no large integrated CCS facilities on heavy industrial plants (excluding above areas) operational today, multiple demonstrations are in development. This includes demonstrations funded through prior rounds of this program and the OCED Industrial Demonstrations Program and the Hydrogen Hubs Program, expected online by 2030.

Commercial Adoption Readiness Level (ARL)[10] varies across aspects of CCS deployment. Potential barriers associated with the adoption of CCS at a facility may include:

- **Delivered cost:** In some applications of CCS the costs of currently available capture technologies may be greater than can be sufficiently offset by the Internal Revenue Code Section 45Q carbon sequestration tax credit.
- **Functional performance:** There is limited public data available to industry and investors on capture efficiency, energy use, and levelized cost-of-capture based on operational experience.

Building and financing a large integrated CCS facility may also face adoption barriers associated with the development of large infrastructure projects, such as:

[6] CEQ-CCUS-Permitting-Report.pdf (whitehouse.gov)
[7] Petra Nova - W.A. Parish Project | Department of Energy
[8] Boundary Dam Carbon Capture Project (saskpower.com)
[9] Major CCUS Demonstration Projects.pdf (energy.gov)
[10] https://www.energy.gov/technologytransitions/adoption-readiness-levels-arl-complement-trl

- **Capital flow:** Available capital to fund new carbon capture demonstrations may be limited.
- **Infrastructure:** Established carbon transport and offtake pathways may not be collocated with existing emissions sources.
- **Community perception:** Some communities are opposed to hosting CCS projects.
- **Regulatory environment:** While CCS permitting requirements generally mirror the permitting requirements for other industrial activities, the regulatory landscape for CCS is evolving as new tax credit regulations and permitting requirements are developed and implemented for this nascent market.
- **Workforce availability**: Competition for skilled labor with other infrastructure projects, especially in the construction trades, could delay projects.

Possible barriers to development of commonly-used shared CCS infrastructure include:

- **Project Development, Integration, & Management:** Multiple separate components of a CCS network rely on each other's timelines for investment assurance.
- **Demand maturity:** Carbon capture is not a current priority of most emitters, limiting the skills, expertise, and personnel available to drive development.

Technical and Commercial Program Priorities

This funding program will broadly support the design, stakeholder and community engagement, construction, and operation of point-source capture facilities and supporting transport and storage infrastructure through three Topic Areas:

- **Topic Area 1 (TA1)** will support commercial-scale demonstrations of integrated carbon capture, transport, and storage at up to one coal-fired power plant and up to one industrial plant. TA1 is designed to increase investor confidence through funding fully-integrated projects at commercial scale, providing multiple years of operational data to the public. TA1 will be divided into TA1a (coal electric generation) and TA1b (industrial facilities not purposed for electric generation).
- **Topic Area 2 (TA2)** will support large-scale pilot projects validating transformational technical advances in point-source carbon capture in the electricity generation or industrial sectors. TA2 is designed to improve the economics and de-risk future scale up of carbon capture in key industries through the design, build, operations, and testing of large-scale pilot demonstrations with the highest potential for increased capture efficiencies, reduced cost, and improved environmental performance.
- **Topic Area 3 (TA3**) will support activities towards achieving financial investment decisions within commercial partnerships of carbon management entities with the goal of unlocking CCS as an economic option. The scope will include integrated planning and business development of localized carbon management networks leveraging shared transport & storage through iterative business development and engineering design. TA3 awards may include elements currently supported through other DOE programs, and those deliverables could be used as inputs, but no duplication of scope or funding will be provided to conduct same scope of work.

In combination, this program intends to use its three topic areas to:

- Drive initial market adoption today by supporting demonstrations of successful CCS projects in key areas to inform future investment [TA1]; and
- Ensure greater market adoption tomorrow by both improving the viability of CCS to incorporate a wider array of emitters [TA2] and help ensure that key CCS infrastructure reaches financial investment decisions [TA3], enabling wider clusters of emitters to leverage CCS.

All three topic areas will continue Department-wide emphasis on community benefits plans (CBPs). CBPs are integral to project design, selection, and execution and will help address community concerns and ensure the creation of high-quality jobs at both the project facilities and in corresponding supply chains. Investment in economically distressed and energy communities and maximizing the creation of long-term employment and skilled training opportunities for regional residents are statutory priorities for DOE funding and address critical investment barriers seen today around community perception.

Applicants are also advised that DOE has new requirements for applications that potentially impact Indian Tribes. Under these new requirements, projects proposed on Tribal Land or intersecting with Tribal subsurface rights will require documentation of Tribal Government support at the time of application, and projects that potentially impact an Indian Tribe in other ways require Tribal government awareness of the project at the time of application. Meaningful Tribal engagement can take time, and applicants are advised to plan accordingly.

Additional details on the anticipated Topic Areas below.

Topic Area 1: Carbon Capture and Storage Demonstrations

Through TA1, DOE intends to demonstrate at commercial scale, in a domestic setting, advanced technology systems that: capture, transport (if required), and store CO2 from coal electric generation and industrial facilities emitting commercial-scale quantities of CO2. Capturing carbon from facility-wide, rather than unit-wide, emissions is permitted but not required. Demonstrations should aim to transition to sustained operations following project completion and provide operational data to support the broader commercial uptake of carbon management industry. Funding will go towards the design, permitting, NEPA review, construction, and operation of an integrated, commercial-scale demonstration.

Applicants into TA1 must have at least performed a pre-FEED study on the capture system. Applicants will be expected to be ready for the detailed design phase if a FEED study already exists or is nearing completion. Facilities are expected to leverage capture technologies tested on relevant flue gas demonstrating at least a 90 percent capture efficiency for at least 1,000 hours (i.e., TRL 7 or above).

DOE requires all TA1 awardees to ultimately transport and geologically sequester any captured CO2. DOE expects applicants to this TA to have demonstrated material progress towards achieving key milestones in CO2 transport and storage, including having begun development at an identified storage site and having a pipeline route identified, a portion of rights-of-way acquired, and required technical specifications identified. DOE anticipates rights-of-way and Class VI well permits will be secured after application and during the award period.

TA1 is anticipated to be divided into two subtopic areas:

- TA1a: advanced technologies that capture, transport, and store CO2 from a new or existing, domestic coal electric generation-only or coal combined heat and power (CHP) facility, and
- TA1b: advanced technologies that capture, transport, and store CO2 from at least one process slipstream at a new or existing domestic industrial facility not purposed for electric generation. This includes facilities enabling chemical production (e.g., ammonia, petrochemicals, and hydrogen), mineral production (e.g., cement, lime, and glass), pulp and paper production, iron and steel production, or oil refining unit offtake (e.g., catalytic cracker). TA1. Projects involving natural gas processing, ethanol production, and hydrogen production via steam methane reforming & autothermal reforming (ATR) will not be considered.

Facilities must be commercial-scale, which is at least 100 MWe of electric power for TA1a and at least 300,000 tonnes CO2/yr produced for TA1b.

At this time, TA1 will not support CCS on natural gas electric generation facilities; however, OCED will consider opening a subtopic area for such facilities in the future.

DOE anticipates several profiles of facilities as potential demonstration applicants. This includes supporting integrated retrofits to existing coal or industrial plants as well as new builds. Applicants may propose to leverage existing or developing CO2 transport and storage infrastructure, including infrastructure receiving support from other DOE or Federal Government programs; applicants also may develop CO2 infrastructure themselves in the scope of the award. While leveraged federal funding is allowable, it may not count towards applicant cost share. DOE encourages applications from facilities that have completed or are in the process of completing an integrated FEED study to assess the feasibility of integrated CCS, as well as facilities that can serve as “anchor tenants” for existing or in-development networks of carbon management infrastructure, or facilities within close proximity to other point sources of potentially-capturable CO2.

Topic Area 2: Carbon Capture Large-Scale Pilots (LSP)

Through TA2, DOE seeks to provide the support needed to test transformational carbon capture technologies that (i) separate carbon emissions from a stream at a facility and (ii) have the ability to validate at least 90% carbon capture efficiency and 95% CO2 purity under real exhaust conditions. TA2 will fund the testing of these novel technologies at intermediate scale and under relevant conditions in both the power and industrial sector to de-risk transformational carbon capture technologies and catalyze significant follow-on investments for first-of-a-kind (FOAK) commercial-scale demonstrations on carbon emission sources across the power and industrial sectors: chemical production (e.g., ammonia, petrochemicals, and hydrogen), mineral production (e.g., cement, lime, and glass), pulp and paper production, iron and steel production, or oil refining unit offtake (e.g., catalytic cracker), H2 production (excluding SMR and ATR). Projects involving natural gas processing, ethanol production, and hydrogen production via steam methane reforming & autothermal reforming will not be considered. The term "large-scale pilot project" means a project capturing (i) 75 kilotons CO2 or more annually at an industrial facility or (ii) from a 25 MW or larger slip stream at an electricity generation facility that:

- Represents the scale of technology development beyond laboratory development and bench scale testing, but not yet advanced to the point of being tested under real operational conditions at commercial scale.
- Represents the scale of technology necessary to gain the operational data needed to understand the technical and performance risks of the technology before the application of that technology at commercial scale or in commercial-scale demonstration; and
- Is large enough-
    - to validate scaling factors; and
    - to demonstrate the interaction between major components so that control philosophies for a new process can be developed and enable the technology to advance from large-scale pilot project application to commercial-scale demonstration or application.

The primary goal of TA2 is to demonstrate substantial improvements to capture cost, energy efficiency, capture rates, and/or other key cost and performance metrics associated with point-source capture by the end of award. Approaches of interest, include, but are not limited to, transformational solvent systems, sorbents, membrane, cryogenic, molten salt, oxycombustion, chemical looping, and hybrid systems. Proposed approaches should demonstrate a substantial improvement over the current commercially available offerings. Solvent approaches should demonstrate a substantial improvement from solvent approaches commercially available today and/or should leverage a different working solution composition and/or a new flue gas source not previously demonstrated. TA2 applicants do not need to sequester or utilize stored CO2; however, projects able to geologically sequester CO2 within a developing or existing storage facility, or utilize captured CO2, will be preferred.

Applicants into TA2 will be expected to have either begun or completed a relevant prior-scale test of the capture technology in question on the relevant flue gas to demonstrate at least a TRL of 5. TA2 will offer an optional “Phase 0” for applicants to complete necessary prior-scale testing.

- Applicants that have already demonstrated a minimum 90% capture rate on a small integrated pilot-scale prototype capturing a minimum of 3-ton CO2/day for at least 2 months, using real flue gas from the proposed process or a process having a similar composition (e.g., CO2 concentration, O2 concentration) temperature, and pressure will be eligible for direct entry into Phase 1 of this TA.
- Applicants that are currently performing testing campaigns (i.e., collecting data) either with existing federal support or independently, will be eligible to enter into TA2 in Phase 0 provided they are able to demonstrate upon completion of Phase 0, a minimum 90% capture rate on a small integrated pilot-scale prototype capturing a minimum of 3 ton CO2/day for at least 2 months using real flue gas from the proposed process or a process having a similar composition (e.g., CO2 concentration, O2 concentration) temperature, and pressure.

Topic Area 3: Networked CCS Demonstration Planning & Commercialization

Through TA3, DOE seeks to support commercial partnerships of large emitters to jointly drive the iterative commercial development of a carbon management network. These partnerships should demonstrate substantial reductions in the fees that emitters pay to transport and store

CO2 through integrated commercial agreements, unlocking broader applicability of CCS as an economic option.

Applicant partnerships should be comprised of the components of a localized carbon management network: ***a)*** at least three emitters within a reasonable proximity to one another of approximately 50 radial miles; ***b)*** at least one developer, owner, or operator of a CO2 transport system; and ***c)*** at least one developer, owner, or operator of a CO2 storage system also within close geographic proximity, which we envision as approximately 50 radial miles from some central location. DOE recognizes that the storage entity may be the same as the transport entity. Additionally, TA3 applicant may also include a local economic development partner capable of coordinating development activities across multiple entities. OCED is limiting the footprint of the network to a subregional area around each shared storage site as OCED-led industry feedback and analysis has demonstrated that limiting network size limits the likelihood of experiencing common project development barriers around social license to operate, permitting hurdles, regulatory hurdles, and land access.

Successful TA3 applicants will be able to demonstrate that they are ***a)*** willing and able to create a shared commercial agreement (i.e., develop necessary arrangements enabling parties to engage in joint project design), and ***b)*** that the networking of emitters through shared access to infrastructure unlocks economies of scale that lower the system-wide fees to transport and store CO2. Applicant partnerships must provide at least 50 percent cost share, which partnerships can use to attract potential follow-on development capital.

Awardees will demonstrate sufficient progress toward satisfying typical conditions precedent to closing project financing for the partnership as a whole. This includes accurate financial models, detailed technical designs, site control, rights of way, well permits, offtake term sheets, shared facilities agreements, feedstock agreements, EPC agreements, O&M agreements, and vendor and equipment agreements. Successful TA3 awards should also develop a commercialization plan to attract further investment in the developing network. Awardees may have already developed portions of these deliverables through other DOE funded capture, transport and storage projects, and those deliverables could be used as input to this new project but no duplication of scope/funding will be provided to conduct same scope of work.

TA3 does not include construction or operation of these networks.

Eligible CO2 storage facilities must have a resource that can contain at least 50 million tonnes of CO2 within a 30-year period and at least 100,000 tonnes per year for the first five years, and it must be in the process of conducting detailed site characterization in preparation for Class VI or Outer Continental Shelf (OCS) “Authorization to Construct” permit. Eligible CO2 transport infrastructure is limited to common-carrier pipeline transport and have a plan to secure a majority of the required rights-of-way.

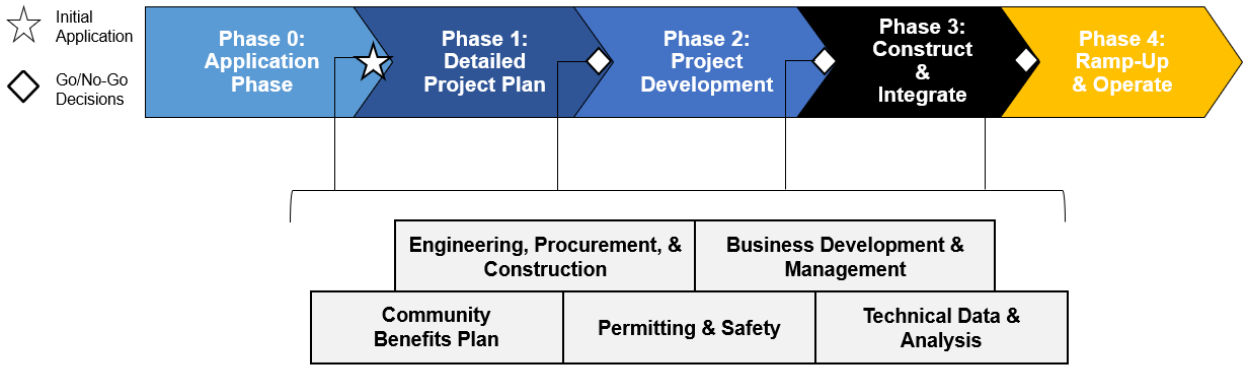
DOE anticipates a diverse array of participants in potential TA3 applications. TA3 applications may be led by an emitter, a transport and storage provider, or a non-developer community organization such as an economic development office. All applicants are encouraged to include participants with expertise in financing, technical or engineering support analysis, and community benefits.

Implementation Approach

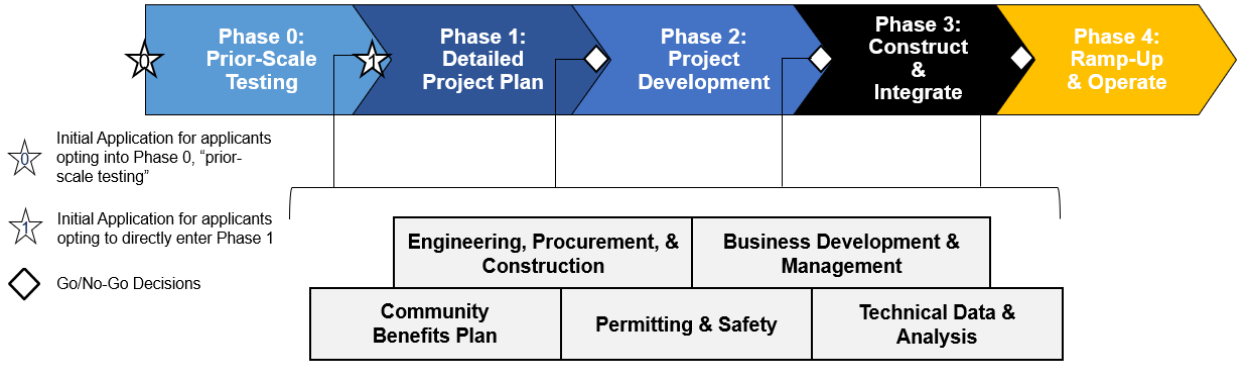
This NOFO is expected to make available up to $1.3 billion of federal funds to support these activities. DOE will provide financial assistance for competitively selected cost-shared demonstration projects. DOE anticipates a minimum of 50% non-federal cost share for TA1 and TA3 and a minimum of 30% non-federal cost share for TA2 (total project cost, including both DOE share and recipient cost share)[11]. Funds are anticipated to support technology demonstration activities including engineering design, construction, operations, community engagement, and data analysis.

OCED anticipates that financial assistance projects awarded through this NOFO will follow a phased structure similar to that shown in the following images, corresponding to each topic area:

Topic Area 1:

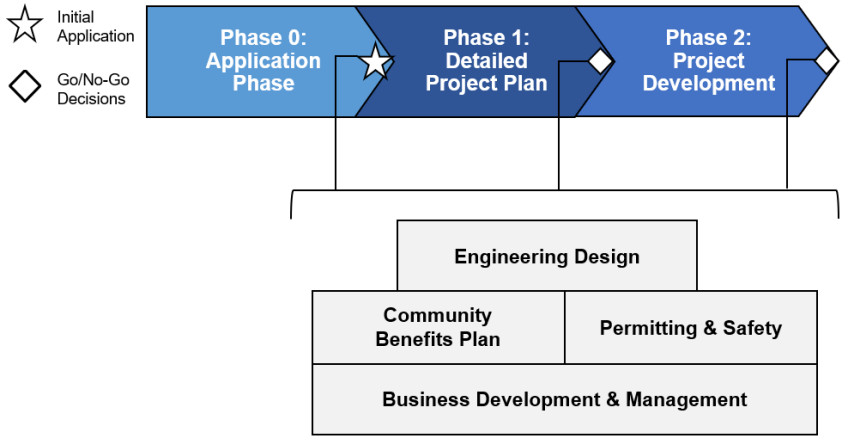


Topic Area 2:



Topic Area 3:

[11] Section 988(c) of the Energy Policy Act of 2005 (42 U.S.C. § 16352).



To facilitate long-term project planning, such as securing potential strategic partners or commercial third-party financing, DOE envisions that the NOFO will solicit applications that cover all four phases of the project. Only phase 1 or phase 2 of selected projects will be funded initially, and additional funding for subsequent phases will be released based on successful completion of Go/No-Go decisions. DOE will review and evaluate progress and deliverables against expected milestones. Projects may be discontinued during or at the end of any phase at the sole discretion of DOE if the Go/No-Go criteria, project, or program requirements are not met.

More details on activities and deliverables likely expected to be completed in each phase will be provided in the NOFO or during pre-award and pre-phase negotiations. Phase lengths may be adjusted or consolidated based on the readiness and status of the proposed project and applicant team.

If TA1 projects are funded through all four phases, DOE envisions that the demonstrations will reach technical viability under the NOFO and demonstrate a plan for commercial viability. Though DOE's goal will be to support projects that will maintain operation after the period of performance, TA2 pilot-scale projects may include disposition and decommissioning plans as part of future scale-up efforts.

Achieving OCED's and DOE's overall goals will necessitate review and evaluation of proposed project characteristics that include cost, schedule, and scope; technology; business; market; financial; management; community support; or other factors. Each subsequent phase will be structured to ensure that each project meets a standard level of maturity, employs a robust execution approach, delivers meaningful community benefits while minimizing negative impacts, and that technical and non-technical project risk is adequately and appropriately managed throughout DOE's engagement. DOE's decision whether and how to authorize the expenditure of federal funds requires compliance with the National Environmental Policy Act (NEPA).

Submission and Registration Requirements for Full Applications

OCED envisions awarding multiple financial assistance awards in the form of cooperative agreements (CA). The NOFO will be released in the 1st quarter of fiscal year 2025 and may

require concept papers and/or pre-applications. OCED expects to require concept papers for all Topic Areas.

If OCED requires concept papers, OCED would issue encourage or discourage notifications to applicants based upon the concept papers and applicants would be required to submit an eligible concept paper to be eligible to submit a full application, which will be requested following the concept paper notifications. If OCED requires pre-applications, only those accepted proposals would be allowed to submit a full application. OCED intends to provide an opt-in teaming list and contact details for all selected pre-applications for TA3: Networked CCS Demonstration Planning & Commercialization to facilitate teaming between TA3 applicants and CCS developers (e.g., TA1, TA2, FOA-1, or privately funded projects) during the application development phase.

OCED intends to announce selections in late 2025.

This Notice is issued so that interested parties are aware of the OCED's intention to issue this NOFO in the near term. All the information contained in this Notice is subject to change. OCED will not accept questions at this time regarding issuance of the potential NOFO. Details on how to submit questions and comments will be provided in the NOFO, when issued.

OCED plans to issue the NOFO via the OCED eXCHANGE website https://oced-eXCHANGE.energy.gov/. If applicants wish to receive official notifications and information from OCED regarding this NOFO, they should register in OCED eXCHANGE. When the NOFO is released, applications will be accepted only through OCED eXCHANGE.

In anticipation of the NOFO being released, applicants are advised to complete the following steps, which are required for application submission:

- Register and create an account in OCED eXCHANGE at https://oced-eXCHANGE.energy.gov. This account will allow the user to apply to any open OCED NOFOs that are currently in OCED eXCHANGE. Please note that potential applicants must create an account in OCED eXCHANGE even if the organization has already registered for an EERE eXCHANGE account. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission.
  Questions related to the registration process and use of the OCED Exchange website should be submitted to: OCED-ExchangeSupport@hq.doe.gov

- Register with the System for Award Management (SAM) at https://www.sam.gov. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called a Marketing Partner Identification Number (MPIN) are important steps in SAM registration. Please update your SAM registration annually. Upon registration, SAM will automatically assign a Unique Entity Identifier (UEI).

- Register in FedConnect at https://www.fedconnect.net/. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf

- Register in Grants.gov to receive automatic updates when Amendments to a NOFO are posted. However, please note that applications will not be accepted through Grants.gov. http://www.grants.gov/. All applications must be submitted through OCED eXCHANGE.