

U.S. DEPARTMENT OF ENERGY - NETL

CATEGORICAL EXCLUSION (CX) DESIGNATION FORM

Project No.: DE-FE0032386 Recipient Name: Northwestern University Project Location: Evanston, IL

Sub-recipient(s) and Locations:

Argonne National Lab-Lemont, IL; Global Thermostat-Brighton, CO; Total Energies-Houston, TX; Siemens Corp-Princeton, NJ
3M Global R&D-St Paul, MN; Avnos-Los Angeles, CA; Constellation-Baltimore, MD; Energy Capital Ventures-Chicago, IL

NETL Sponsoring Org.: FECM/TDC/CM/CO2 Conversion NETL Contact: Lei Hong

Brief Title of Proposed Action: The Midwest Nuclear Regional Direct Air Capture Hub (MINDAC)

Brief Description of Activities:

The objective of this project is to explore the feasibility of a nuclear-powered Direct Air Capture (DAC) hub (co-located with Constellation's 1 GW Clinton nuclear power plant) in the Midwest.

THE PROPOSED ACTION FALLS WITHIN THE FOLLOWING CATEGORICAL EXCLUSION(S) FROM APPENDICES A AND B TO SUBPART D OF DOE NEPA IMPLEMENTING PROCEDURES (10 CFR 1021):

General Administration/Management

- A1 - Routine business actions
- A9 - Info gathering, analysis, documentation, dissemination, and training
- A11 - Technical advice and planning assistance

Facility Operations

- B1.3 - Routine maintenance and custodial services
- B1.7 - Communication system and data processing equipment acquisition, installation, operation, removal
- B1.15 - Support building or structure, non-waste storage, construction/operation

Safety and Health

- B2.1 - Modifications to enhance workplace habitability
- B2.2 - Installation/improvement of building/equipment instrumentation
- B2.3 - Installation of equipment for personnel safety and health

General Research

- B3.1 - Site characterization/environmental monitoring
- B3.6 - R&D or pilot facility construction/operation/decommissioning
- B3.7 - New infill exploratory, experimental oil/gas/geothermal well construction and/or operation
- B3.9 - Certain CCT demonstration activities, emissions unchanged
- B3.11 - Outdoor tests, experiments on materials and equipment components

Electrical Power and Transmission

- B4.4 - Power management activities (storage, load shaping, and balancing)
- B4.6 - Transmission support addition/modifications at developed facility site
- B4.11 - Construction of power substations and interconnection facilities
- B4.13 - Upgrading and rebuilding existing power lines (< 20 miles)

Conservation, Fossil, and Renewable Energy Activities

- B5.1 - Actions to conserve energy, no indoor air quality degradation
- B5.3 - Modification/abandonment of wells
- B5.5 - Short crude oil/gas/steam/geothermal/carbon dioxide pipeline const/oper within an existing right-of-way (< 20 miles) between existing facilities
- B5.13 - Experimental wells for injection of small quantities of carbon dioxide (< 500,000 tons)
- B5.15 - Small scale renewable energy research/development/pilot projects
- B5.22 - Alternative fuel vehicle fueling stations
- B5.23 - Electric vehicle charging stations

Other

- Specify category: [Redacted]
- Specify category: [Redacted]
- Specify category: [Redacted]

This action (1) would not present any extraordinary circumstances such that the action might have a significant impact upon the human environment; (2) is not connected to other actions with potentially significant impacts; (3) is not related to other actions with cumulatively significant impacts; and (4) is not inconsistent with 10 CFR 1021.211 - Interim Actions or 40 CFR 1506.1 - Limitations during the NEPA process.

SELECT ONE OF THE FOLLOWING:

- This Categorical Exclusion includes all tasks and phases in the Statement of Work or Statement of Project Objectives for this project.
- This Categorical Exclusion is only valid for the following tasks/phases [Redacted]. The DOE initiator acknowledges the responsibility to obtain a NEPA determination prior to initiating any activities outside the scope of this Categorical Exclusion.

SELECT ONE OF THE FOLLOWING:

- This Categorical Exclusion includes all locations and activities for this project.
- Additional sites, sub-recipients, or activities cannot be identified at this time. The DOE initiator acknowledges the responsibility to obtain a NEPA determination prior to initiating any activities outside the scope of this Categorical Exclusion.

NOTE: ANY CHANGE(S) TO THE PROJECT SCOPE OR LOCATIONS MAY REQUIRE A NEW NEPA DETERMINATION.

DOE Initiator Signature: LEI HONG Digitally signed by LEI HONG Date: 2024.01.29 17:00:00 -0500

Date: 01 / 29 / 2024

NEPA Compliance Officer: JILL TRIULZI Digitally signed by JILL TRIULZI Date: 2024.02.07 09:54:05 -0500

Date: month day year

Date: 02 / 07 / 2024 month day year

The following special condition is provided for the consideration of the Contracting Officer:

NCO Note: CX approval is for Phase 0a (Pre-Feasibility) and Phase 0b (Feasibility) desktop activities only.