

U.S. DEPARTMENT OF ENERGY - NETL

## CATEGORICAL EXCLUSION (CX) DESIGNATION FORM

Project No.: FE0032149/FOA-2515 Recipient Name: ION Clean Energy, Inc. Project Location: Boulder, CO

Sub-recipient(s) and Locations:

Storworks-Arvada CO, Colorado State University-Fort Collins CO

NETL Sponsoring Org.: FE/TDC/ACCM/PSCC Team

NETL Contact: Katharina Daniels

Brief Title of Proposed Action: Engineering-scale Demonstration of Transformational Solvent on NGCC Flue Gas

Brief Description of Activities:

Design a thermal energy storage (TES) system and complete a Life Cycle Analysis and sensitivity study in support of the ongoing FEED study.

### 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:

☐ Specify category:

☐ Specify category:

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 . 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: KATHARINA DANIELS

Digitally signed by KATHARINA DANIELS  
Date: 2024.01.16 14:39:46 -05'00'

Date: 01 / 16 / 24

month day year

NEPA Compliance Officer: Pierina Fayish

Digitally signed by Pierina Fayish  
Date: 2024.01.19 14:26:01 -05'00'

Date: 01 / 19 / 24

month day year

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

NCO Note: This CX applies to the addition of new subcontractors, Storworks and Colorado State University, only. The previous CX remains in effect for all other locations and activities.