



National Environmental Policy Act (NEPA) Determination

Categorical Exclusion

Recipient: Technip Energies USA, Inc. (T.EN)

State: Not yet determined

Project Title: Sustainable Ethylene from CO₂ Utilization with Renewable Energy (SECURE) – Phase 1

Funding Opportunity Announcement Number: DE-FOA-0002936

Award Number: DE-CD0000080

OCED NEPA Control Number: OCED-000080-001-CX

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CATEGORICAL EXCLUSION APPENDIX, NUMBER, AND DESCRIPTION: A9 Information gathering, analysis, and dissemination: Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B3.1 Site characterization and environmental monitoring Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone,

well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Rationale for Determination:

DOE's Office of Clean Energy Demonstrations (OCED) is proposing to provide funding to Technip Energies USA, Inc. (T.EN) in support of their project to design and construct a commercial-scale carbon capture and utilization (CCU) unit that reuses the emissions from steam crackers to make sustainable ethylene.

At this time, DOE is proposing to provide funding in support of T.EN's planning and design and site characterization and environmental monitoring activities only; those activities are described below. The activities completed in this phase would inform additional DOE NEPA review and a go/no-go decision prior to authorizing federal funding in support of subsequent project phases.

In this BP, T.EN Phase 1 activities would include the following actions:

- Front-end Engineering Design (FEED) work and a preliminary Total Installed Cost (TIC) estimate;
- Project oversight, including schedules, work breakdown structures, reporting, management and controls;
- Cost estimates, project budgets, and contingency management;
- Risk management to include risk identification and mitigation;
- Quality assurance ;
- Business and financial models to include techno-economic analysis and other commitments from any partners;
- Community Benefits (CB) tasks, including:
 - Communication (and associated documentation) with project stakeholders, e.g., labor groups, the Community Advisory Panel, and local tribal groups;
 - Strategy development and analysis to demonstrate Justice40 impacts; and
 - Development of CB plans, including:
 - Hiring and workforce development plans,
 - Justice40 impact analysis and strategy,
 - Monitoring of air quality and community impacts, and
 - Development of data reporting platforms
- Feedstock and offtake agreements
- Market assessment;
- Intellectual property and data management;
- Site characterization and access for interconnection (only planning and design);
- Geotechnical activities including hydro-trenching;
- Permitting, emissions, and environmental analysis to include lifecycle GHG emissions models/analysis;
- Technology maturation and assessment;

- FEED for all OSBL and ISBL systems;
- Codes and standards identification and implementation;
- Initial procurement & logistics, construction, and operations & maintenance management and oversight in support of the TIC development;
- Security to include cyber, facility, and physical security planning;
- Hazard and safety assessment and management;
- Permitting and NEPA documentation activities;
- Preliminary startup and operations plan to include staffing and training in support of TIC development.

DOE does not anticipate adverse impacts to sensitive resources as a result of the proposed activities.

Consultations (Section 106 NHPA, Section 7 ESA, etc.): All cultural resource identification activities (e.g., archaeological, historic above ground, historic visual assessments) must be completed in accordance with applicable guidelines and standards provided by the State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) and the Secretary of the Interior's Identification Standards. Coordination with DOE is required to establish an Area of Potential Effects (APE) and scope of effort (i.e., research design) prior to geotechnical surveys and cultural resource field investigations. DOE will initiate Section 106 consultation prior to geotechnical surveys and cultural resource field investigations in order to support coordination with SHPO/THPO, Tribes, and other Section 106 consulting parties.

☒ The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not:

- (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders;
- (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities;
- (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases;
- (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B (4) of 10 CFR Part 1021, Subpart D, Appendix B;
- (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B (5) of 10 CFR Part 1021, Subpart D, Appendix B.

☒ There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal. The proposed action has not been segmented to meet the definition of a categorical exclusion.

☒ This proposal is not connected to other actions with potentially significant impacts (40 CFR 1501.9(e)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.1(g)(3)) and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

☐ DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

☒ The proposed action is categorically excluded from further NEPA review.

☐ A portion of the proposed action is categorically excluded from further NEPA review.

Notes: This categorical exclusion applies to those activities listed above. Any changes to the project activities or location are subject to additional NEPA review by DOE and are not authorized for federal funding unless and until the Contracting Officer provides written authorization on those additions or modifications.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

OCED NEPA Compliance Officer Signature:

Date: