

**U.S. DEPARTMENT OF ENERGY**  
**OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY**  
**NEPA DETERMINATION**



**RECIPIENT:** T2C-Energy LLC

**STATE:** FL

**PROJECT TITLE:** Demonstration Scale-up: TRIFTS Biogas to Renewable Fuel

**Notice of Funding Opportunity Number**  
DE-FOA-0002396

**Procurement Instrument Number**  
DE-EE0009761

**NEPA Control Number**  
GFO-0009761-002

**CID Number**  
G09761

**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:**

**CX, EA, EIS APPENDIX AND NUMBER:**

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.)

**B1.31 Installation or relocation of machinery and equipment**

Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

**B3.6 Small-scale research and development, laboratory operations, and pilot projects**

Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

**B5.15 Small-scale renewable energy research and development and pilot projects**

Small-scale renewable energy research and development projects and small-scale pilot projects, provided that the projects are located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

**Rationale for determination:**

The U.S. Department of Energy (DOE) is proposing to provide federal funding to T2C-Energy LLC (T2C) to design, fabricate, install, and operate a demonstration facility capable of converting raw biogas to renewable diesel and jet fuel.

DOE previously completed a NEPA Determination (ND) (GFO-0009761-001, exclusions A9 and B3.6, signed 12/1/2021) which only applied to Phase 1, i.e., Budget Period (BP) 1 and BP2 activities. Phase 1 activities were necessary to inform Phase 2 activities. Therefore, a full NEPA review could not occur until sufficient information was obtained via Phase 1 activities. This ND applies to Phase 2 activities, i.e., BP3 through BP5.

Phase 2 award activities involve engineering/design, equipment testing, modifications to existing facilities, ground disturbance in pre-disturbed areas, and fabrication, installation, and operation of the demonstration facility. T2C would perform design, procurement, project management, and testing activities at their headquarters in Pinellas Park, Florida. Additionally, T2C would conduct bench-scale laboratory testing to confirm design data at their laboratory on University of Florida's campus in Tampa. Data analysis would occur at the Argonne National Laboratory in Lemont, Illinois. Xytel, Incorporated, (Xytel) would be responsible for design, procurement, and modular construction of the demonstration facility at their headquarters in Roebuck, South Carolina. The demonstration facility would be installed and operated at the Southeast Berrien County Landfill (SEBCLA; Niles, Michigan). SEBCLA is an operational landfill

and would also be the location of a one-to-two-week testing period of a mobile pilot facility prior to the installation of the actual demonstration facility. The mobile pilot facility and all ancillary equipment would be on wheels and would not require ground disturbance.

The proposed demonstration facility, associated tie-ins, and two equipment staging areas would be located within a previously extensively disturbed area of SEBCLA. The facility would require a concrete foundation measuring 120 feet (ft) by 120 ft and would result in approximately one acre of ground disturbance. It would include an operational control room, motor control room, and process modules which would be housed in a manufactured building. The demonstration facility modules would be constructed and preassembled at the Xytel location and transported to SEBCLA for installation onto the concrete foundation. Additionally, the demonstration facility would include a 50-ft stack, tanks, and cooling towers that would be installed outside of the manufactured demonstration facility building. For operation of the demonstration facility, tie-ins to SEBCLA's existing gas flare unit and electric generator facility would be required. Specifically, the gas flare unit is located approximately 400 feet east from the proposed demonstration facility and would require an eight-inch pipe to be buried approximately 60 inches underground. Electric and water supply lines would run approximately 500 feet from the electric generator facility to the east to the proposed demonstration facility location. The electric lines would be run above ground with a maximum of four utility poles. Each utility pole would require a 15-inch diameter by 72-inch-deep hole. The water supply line would measure two inches in diameter and be horizontally bored 60 inches below ground. The two equipment staging areas would include an eastern staging area and a southern staging area. The eastern staging area is directly adjacent to the demonstration facility. The southern staging area is approximately 150 feet from the demonstration facility. Existing SEBCLA roads would be used to access the demonstration facility during construction and operation.

Potential hazards include typical hazards associated with construction, mechanical, and electrical work. Existing health, safety, and environmental policies and procedures would be followed to mitigate hazards to acceptable levels, including hazard analyses, gas monitoring equipment, and secondary containment. Mitigated hazards would pose negligible risks to the public and environment. All activities would comply with existing federal, state, and local laws and regulations.

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website identifies three endangered species (Indiana Bat, Northern Long-eared Bat, and Mitchell's Satyr Butterfly), one proposed endangered species (Tricolored Bat), four threatened species (Rufa Red Knot, Copperbelly Water Snake, Eastern Massasauga, and Pitcher's Thistle), and one candidate species (Monarch Butterfly) which may occur in the proposed project area. No critical habitats are identified within the proposed project area. Furthermore, given the extensive disturbance to the area and past and ongoing activities, species of concern are not likely to be present. DOE has determined no effect to special status species.

Minimal air emissions may result from the use of diesel-powered vehicles and equipment during construction of the system. However, significant air impacts are not anticipated as emissions would be temporary and intermittent.

DOE has considered the scale, duration, and nature of proposed activities to determine potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

EERE is aware of the November 12, 2024, decision in *Marin Audubon Society v. FAA*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, EERE has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500-1508, in addition to DOE's procedures/regulations implementing NEPA at 10 C.F.R. Part 1021, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

## NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

Should archaeological materials be observed during project activities, all work in the immediate vicinity shall stop, and the area shall be secured. The appropriate State and/or Tribal Historic Preservation Office and the DOE Project Officer

shall be contacted immediately in order to help assess the situation and determine how to preserve the resource(s). Compliance with all applicable laws pertaining to archaeological resources is required.

Notes:

Bioenergy Technologies Office  
NEPA review completed by Andrew McClellan, 29 May 2025

**FOR CATEGORICAL EXCLUSION DETERMINATIONS**

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 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), 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.

The proposed action is categorically excluded from further NEPA review.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:  Electronically Signed By: Matthew Blevins Date: 6/6/2025  
NEPA Compliance Officer

**FIELD OFFICE MANAGER DETERMINATION**

- ☒ Field Office Manager review not required  
☐ Field Office Manager review required

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Field Office Manager