

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



RECIPIENT: ReSource Chemical Corp.

STATE: CA

PROJECT TITLE: Chemical Production of Renewable Commodity Plastics from CO2

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002997	DE-EE0011207	GFO-0011207-001	

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.)
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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to ReSource Chemical Corporation (ReSource) for the sequential pilot-scale demonstration of a multi-step chemical process technology for the conversion of lignocellulose-derived furfural into polymer-grade furan-2,5-dicarboxylic acid.

Project activities at ReSource's dedicated laboratory and manufacturing facility in Oakland, California would include bench-scale process integration studies; sample analysis and characterization; and commissioning and operation of pilot-scale demonstration units for oxidation, carboxylation, purification, and salt recycling. Pilot-scale water removal demonstration would be conducted at Artisan Industries' dedicated manufacturing site in Stoughton, Massachusetts. Pilot-scale recrystallization demonstration activities would occur at Thermal Kinetics Test Center's laboratory and pilot testing facility in Amherst, New York.

Project efforts at the ReSource facility would involve the use and handling of hazardous materials including organic solvents and corrosive solutions, as well as physical hazards associated with the operation of laboratory and process equipment including elevated temperatures, pressurized gases, and mechanical hazards. Award activities at Artisan Industries would involve the use and handling of hazardous materials including corrosive solutions, as well as physical hazards associated with the operation of process equipment including elevated temperatures, pressurized gases, and mechanical hazards. Project activities at Thermal Kinetics would involve physical hazards associated with the operation of laboratory and process equipment including elevated temperatures and mechanical hazards. All laboratory and manufacturing activities would be carried out by trained personnel. Hazardous materials and waste generated as part of project activities would be handled in accordance with all federal, state, and local environmental regulations. Existing health and safety procedures would be followed including employee training, use of personal protective equipment, engineering controls, and internal assessments. Additional policies and procedures would be implemented as needed to address any new health and safety risks that may arise during the project.

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 that would be considered significant or require DOE to consult with other agencies or stakeholders.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Industrial Efficiency & Decarbonization Office
NEPA review completed by Chris Akios, 10/31/2024

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: [Andrew Montano](#)

NEPA Compliance Officer

Date: 11/1/2024

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: _____

Field Office Manager

Date: _____