

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



RECIPIENT: Kim Tutin / Captis Aire LLC

STATE: GA

PROJECT TITLE: Renewable Blending Components to Enable 100% Sustainable Aviation Fuel (SAF)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002638	DE-EE0010456	GFO-0010456-001	GO10456

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.
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 funding to Captis Aire LLC (Captis Aire; Lenior City, TN) to operate a pre-pilot system capable of recovering terpenes feedstock from wood products via a fluidized bed concentrator (FBC) and reducing greenhouse emissions. Using the captured terpenes feedstock, the award aims to produce Terpenes sustainable aviation fuel (SAF).

Award activities include data analysis, preliminary engineering/design, modifications to existing facilities, and field testing. The award consists of three budget periods (BPs). BP1 involves verification activities including data analysis and project management. BP2 would focus on the operation of the pre-pilot system at Weyerhaeuser Company's (Weyerhaeuser) wood products manufacturing facility (Elkin, NC), testing of terpenes feedstock, creation of scalable SAF conversion methodology, and testing of Terpenes SAF. From the findings of BP2, BP3 would include the implementation of scale-up operations, creation of a business plan, and completion of a comprehensive project review.

Captis Aire would be responsible for project management activities such as planning, reporting, procurement, and analysis. Engineering, planning, procurement, and operations oversight would occur in a home office in Matawan, NJ. The Oak Ridge National Laboratory would convert the terpenes feedstock into SAF as well as perform SAF testing, scaleup preparation, and data analysis at their facilities in Oak Ridge, TN. Refining and Petrochemical Development Technologies (Crosby, TX) and Washington State University (Richland, WA) would participate in SAF scaleup activities and SAF testing, respectively.

All outdoor work would occur within the existing footprint of Weyerhaeuser's wood products manufacturing facility. Award activities associated with this location include outdoor installation of the FBC and associated equipment, and subsequent operation of this equipment. The equipment would be installed immediately adjacent to the existing wood processing systems and be anchored to the concrete surface of the mill. The total space needed for the terpene capture equipment is approximately 25 feet x 35 feet and would require the installation of ductwork and placement of

an adjacent job trailer. There would be minor and temporary land disturbance adjacent to the proposed installation for lift/forklift work and use of the equipment staging area. All facilities associated with the award are preexisting purpose-built facilities for the type of work to be conducted for this award. No facility modifications or additional outdoor equipment installation and operation are proposed under the award.

Award activities would involve typical hazards associated with handling and use of flammable solvents and the operation of heavy machinery. All material handling would either occur in-lab or at facilities dedicated to proper hazardous material handling and disposal practices. Additionally, job hazard analyses would occur at Weyerhaeuser to manage equipment risks to operators. All activities would comply with existing federal, state, and local laws and regulations.

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.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Bioenergy Technologies Office
NEPA review completed by Corrin MacLuckie, 11/3/2023.

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:


NEPA Compliance Officer

Date: 11/3/2023

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: _____