

PMC-ND

(1.08.09.13)

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



RECIPIENT: NREL

STATE: CO

**PROJECT TITLE:** UAS Flights for Photos and Videos - Flatirons Campus

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
	DE-AC36-08GO28308	NREL-20-039	GO28308

**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:

<b>B3.2 Aviation activities</b>	Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.
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Rationale for determination:

The U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) is proposing to use unmanned aircraft systems (UAS) to conduct photography and videography in support of a tour of the Flatirons Campus located in Jefferson County, Colorado. Multiple flights would be conducted during the tour on September 24th, 2020. The primary flight location would be at the Site 4.4 turbine but flights could occur at other campus locations as determined by the tour/campus overview route.

Flights would be conducted at altitudes below 400 ft. above ground level (AGL), in winds less than 25 mph steady (30 mph gusts). Flights at the primary location would be within Class D airspace of Rocky Mountain Metropolitan Airport (KBJC). Any orbits around the Site 4.4 turbine would maintain a minimum orbit radius of 263 ft. (approx. 1.5 times the turbine blade length). Other areas of the campus where flights could occur may be within Class G airspace. All flights would avoid adjacent property and would maintain a speed of less than 20 mph as well as a minimum horizontal and vertical distance of 25 ft. from structures. Launch and landing areas would be determined by the Pilot-in-Command (PIC) prior to each flight and measures would be taken to visually demarcate the flight area with items such as cones, caution tape, or signage. Mission support staff would direct and control staff access during flights as needed. Road closures would be coordinated with the Traffic Safety AHJ and Security if needed. The UAS would be landed when large birds or bird flocks are present in the area. Flight activities would be conducted by NREL staff as authorized in accordance with OPP 650-7, "Unmanned Aircraft Systems" and under FAA 14 CFR Part 107 regulations. Flights would adhere to and take place in accordance with NREL policies, procedures, and safety requirements for conducting UAS missions on DOE facilities.

For flights occurring within the Class D airspace of KBJC, authorization would be obtained from FAA Air Traffic Control via the Low Altitude Authorization and Notification Capability (LAANC) process prior to flights within KBJC's Class D airspace and if a lost link event were to occur, KBJC would be contacted immediately. Flights occurring in Class G airspace do not require notifications, authorizations, or permits.

A risk assessment has been completed for flight activities with operational parameters, hazards, and controls being identified and set forth in an Aviation Safety Plan that was drafted in consultation with NREL Environment, Safety, and Health staff and the UAS Steering Committee. The Flight Plan for this project has been submitted and approved by the Golden Field Office's Aviation Manager and Office Director. The Aviation Manager determined that the identified flight risks for the project "have been adequately identified and mitigated to low risk per the DOE-GFO Risk Assessment".

If flight conditions change or the documented mitigation factors are unable to be implemented the mission will need to be paused so a reevaluation of hazards can occur.

**NEPA PROVISION**

DOE has made a final NEPA determination.

Notes:

NEPA review completed by Casey Strickland on September 23, 2020.

#### 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:  \_\_\_\_\_ Date: 9/23/2020  
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