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-ND	U.S. DEPARTMENT OF ENERGY
.09.13)	OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
	NEPA DETERMINATION

## RECIPIENT:NREL

PMC (1.08

STATE: CO

PROJECT South Table Mountain PV Central Array Testing Site; NREL Tracking No. 15-011

 Funding Opportunity Announcement Number
 Procurement Instrument Number
 NEPA Control Number
 CID Number

 DE-AC36-08GO28308
 NREL-15-011
 GO28308

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

CX, EA, EIS APPENDIX AND NUMBER:

Description:

DOE/EA-1968SITEWIDE ENVIRONMENTAL ASSESSMENT, U.S. DOE NATIONAL RENEWABLE ENERGY(NREL STM)LABORATORY, SOUTH TABLE MOUNTAIN CAMPUS, GOLDEN, COLORADO

## Rationale for determination:

The U.S. Department of Energy (DOE) proposes the installation of an outdoor photovoltaic (PV) test area at the National Renewable Energy Laboratory (NREL) South Table Mountain (STM) campus located in Golden, Colorado.

The proposed project would include the creation of a 100-foot by 300-ft outdoor PV test area called the Central Array Test Site in the area located between Denver West Parkway and Urban Street in Site Development Zone 6 – Camp George West Parcel. The test area would be supported by a 12-foot wide gravel access road from Urban Street and with 12-foot wide gravel roads providing access to individual test plots as shown in the figure uploaded to the PMC. Research partners would install PV test array framing and test articles with helical anchors. Electrical and data connections would be made by trenching underground conduits to existing site infrastructure located 150 feet to 300 feet south of the proposed project site. A fence would be erected around the site to keep non-research personnel out of the test area. The proposed test area would be temporary and would be in place for a period of up to ten years. Upon conclusion of the outdoor PV testing at this site, the site would be reclaimed.

Approximately 18,000 squarefeet of 12-foot wide access road to and around the test sites would be graded, and covered with geotextile liner and gravel. A 150-foot underground conduit for electrical and a 200- to 300-foot conduit for data would be trenched to the south. The total area of disturbance would not exceed 34,800 square feet or 0.8 acres. Research partners would be required to use helical anchors to install framing and test articles. These anchors do not require excavation and are screwed into the ground. Areas to be excavated have been previously disturbed during the construction of the surface parking lot, the parking garage, Urban Street, and various underground utilities and infrastructure. All construction and restoration activities would follow NREL's Laboratory Level Procedure 6-1.28: Stormwater Pollution Prevention for Construction Activities: South Table Mountain Site. All disturbed areas activities not covered by geo-textile and gravel, shall be restored and re-vegetated and proper stormwater and erosion control BMPs would be deployed.

Any mobile air emission sources from construction equipment, such as back hoes, bobcats, support trucks, etc., would be negligible and short-term. Construction-related noise would consist of a short-term, intermittent increase in ambient noise levels and would abide by applicable noise ordinances. Visual impacts of the Central Array Test Site would be minimal and would be largely blocked from most vantage points by the existing built environment. Glare and reflectance would not be an issue for the proposed undertaking. Photovoltaic panels, like the ones that would be installed at the Central Array Test Site, produce significantly less glare and reflectance than standard window glass. Solar panels use high-transmission, low-iron glass, which absorbs more light, producing far smaller amounts of glare and reflectance than normal glass. Most modern PV panels also include an anti-reflective coating to further minimize

reflectance and maximize the power output.

Per the environmental analysis and agency consultations conducted for the Final Site-Wide Environmental Assessment of the NREL South Table Mountain Campus (DOE/EA-1968), no threatened or endangered species, wetlands, floodplains, or prime farmlands would be impacted by this proposed project. A migratory bird nesting survey would be conducted prior to project activity. If nests or eggs are found, the particular area would be cordoned off with a proper buffer until nestlings fledge. This would ensure that no migratory birds, nests or eggs are destroyed during the proposed project. DOE has initiated consultations with the Colorado State Historic Preservation Officer and other consulting parties per Section 106 of the National Historic Preservation Act for potential impacts to historic properties by the proposed project. Consultations are currently ongoing and will be completed prior to any ground disturbance or construction activity.

The development and operation of outdoor test pads or areas for research demonstration and pilot-scale projects was included within the scope of the Proposed Action [Outdoor Test Pads(E)] analyzed in the December 2014 NREL STM Campus Site-Wide Environmental Assessment (DOE/EA-1968). DOE/EA-1968 and its Finding of No Significant Impact (FONSI) are hereby incorporated by reference. DOE has determined that these activities are bounded by the environmental impact analysis contained in DOE/EA-1968, and its FONSI, and no further NEPA review is required.

#### NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Insert the following language in the award:

#### You are required to:

Site disturbance and construction activities are prohibited until all required federal consultations are complete and notification has been received from DOE. The DOE Environmental Oversight Office will notify NREL when the consultations have been completed and of any additional conservation or mitigation measures that must be implemented.

Note to Specialist :

NEPA review conducted by Rob Smith on 4/29/2015 National Renewable Energy Laboratory

## SIGNATURE OF THIS MEMORANDUM/CONSTITUTES/A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

m NEPA Compliance Officer

Date:

## FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

# NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

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

Field Office Manager's Signature:

Field Office Manager

Date: