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(Previous Editions Obsolete)

U.S. DEPARTMENT OF ENERGY - NETL

CATEGORICAL EXCLUSION (CX) DESIGNATION FORM

Project No.: DE-CR0000021 Recipient Name: Virginia Tech Project Location: Blacksburg, VA

Sub-recipient(s) and Locations:

Regents of the University of Michigan - Dearborn, MI; Southern Company Services - Birmingham, AL; GE Research - Niskayuna, NY.

NETL Sponsoring Org.: FE/CESER/TDC/EDS/Research and Dev NETL Contact: Bob Hayes - 304.285.4008

Brief Title of Proposed Action: Cyber REsilience of SubsTations (CREST) for Grid Operation and Control

Brief Description of Activities:

Fundamental research on cybersecurity of electric power systems. R&D in Phase I (two years) and Demonstration in Phase II (1 year).

THE PROPOSED ACTION FALLS WITHIN THE FOLLOWING CATEGORICAL EXCLUSION(S) FROM APPENDICES A AND B TO SUBPART D OF DOE NEPA IMPLEMENTING PROCEDURES (10 CFR 1021):

General Administration/Management

- [x] A1 – Routine business actions
- [x] A9 – Info gathering, analysis, documentation, dissemination, and training
- [ ] A11 – Technical advice and planning assistance

Facility Operations

- [ ] B1.3 – Routine maintenance and custodial services
- [x] B1.7 – Communication system and data processing equipment acquisition, installation, operation, removal
- [ ] B1.15 – Support building or structure, non-waste storage, construction/ operation

Safety and Health

- [ ] B2.1 – Modifications to enhance workplace habitability
- [ ] B2.2 – Installation/improvement of building/equipment instrumentation
- [ ] B2.3 – Installation of equipment for personnel safety and health

General Research

- [ ] B3.1 – Site characterization/environmental monitoring
- [ ] B3.6 – R&D or pilot facility construction/operation/decommissioning
- [ ] B3.7 – New infill exploratory, experimental oil/gas/geothermal well construction and/or operation
- [ ] B3.9 – Certain CCT demonstration activities, emissions unchanged
- [ ] B3.11 – Outdoor tests, experiments on materials and equipment components

Electrical Power and Transmission

- [ ] B4.4 – Power management activities (storage, load shaping, and balancing)
- [ ] B4.6 – Transmission support addition/modifications at developed facility site
- [ ] B4.11 – Construction of power substations and interconnection facilities
- [ ] B4.13 – Upgrading and rebuilding existing power lines (< 20 miles)

Conservation, Fossil, and Renewable Energy Activities

- [ ] B5.1 – Actions to conserve energy, no indoor air quality degradation
- [ ] B5.3 – Modification/abandonment of wells
- [ ] B5.5 – Short crude oil/gas/steam/geothermal/carbon dioxide pipeline const/oper within an existing right-of-way (< 20 miles) between existing facilities
- [ ] B5.13 – Experimental wells for injection of small quantities of carbon dioxide (< 500,000 tons)
- [ ] B5.15 – Small scale renewable energy research/development/pilot projects
- [ ] B5.22 – Alternative fuel vehicle fueling stations
- [ ] B5.23 – Electric vehicle charging stations

Other

- [ ] Specify category:
- [ ] Specify category:
- [ ] Specify category:

This action (1) would not present any extraordinary circumstances such that the action might have a significant impact upon the human environment; (2) is not connected to other actions with potentially significant impacts; (3) is not related to other actions with cumulatively significant impacts; and (4) is not inconsistent with 10 CFR 1021.211 - Interim Actions or 40 CFR 1506.1 - Limitations during the NEPA process.

SELECT ONE OF THE FOLLOWING:

- [x] This Categorical Exclusion includes all tasks and phases in the Statement of Work or Statement of Project Objectives for this project.
- [ ] This Categorical Exclusion is only valid for the following tasks/phases . The DOE initiator acknowledges the responsibility to obtain a NEPA determination prior to initiating any activities outside the scope of this Categorical Exclusion.

SELECT ONE OF THE FOLLOWING:

- [x] This Categorical Exclusion includes all locations and activities for this project.
- [ ] Additional sites, sub-recipients, or activities cannot be identified at this time. The DOE initiator acknowledges the responsibility to obtain a NEPA determination prior to initiating any activities outside the scope of this Categorical Exclusion.

NOTE: ANY CHANGE(S) TO THE PROJECT SCOPE OR LOCATIONS MAY REQUIRE A NEW NEPA DETERMINATION.

DOE Initiator Signature: Robert P. Hayes Digitally signed by Robert P. Hayes Date: 2022.08.03 21:08:19 -04'00' Date: 8 / 3 / 2022 (month / day / year)

NEPA Compliance Officer: PIERINA FAYISH Digitally signed by PIERINA FAYISH Date: 2022.08.19 16:41:10 -04'00' Date: 08 / 19 / 2022 (month / day / year)

The following special condition is provided for the consideration of the Contracting Officer: