



**Department of Energy**  
**Washington, DC 20585**

**RECORD OF CATEGORICAL EXCLUSION (CX) DETERMINATION**

**OFFICE:** Office of Electricity Delivery and Energy Reliability (OE)

**STIMULUS PROPOSAL:** Smart Grid Investment Grant Program (EISA 1306)

**BACKGROUND:** The National Environmental Policy Act (NEPA) requires federal agencies to prepare Environmental Impact Statements (EISs) for every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment.

The Department of Energy's (DOE's) regulations that implement NEPA require it to determine whether a proposal (in this case the proposal to fund third party research and analysis) requires that an EIS, an Environmental Assessment (EA), or a Categorical Exclusion (CX) be prepared. An EA is a concise public document that provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. A CX refers to a category of actions that DOE has determined do not individually or cumulatively have a significant effect on the human environment. As such DOE need not prepare an EA or an EIS for categorically excluded actions.

All of DOE's CXs are listed at 10 CFR 1021, Appendices A and B to Subpart D. The use of CXs provides a way for DOE to streamline the NEPA review process and preserve its resources for environmentally significant proposals. The CXs are applicable to all DOE "actions" which by definition include projects funded by DOE but undertaken by a third party. DOE regulations define "action" to include "a project . . . as discussed at 40 CFR §1508.18, that is subject to DOE's control and responsibility." 10 CFR §1021.104(b). The CEQ regulations at 40 CFR §1508.18 define major federal action to include "projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies."

In order to conclude that a proposed action is categorically excluded, DOE is required by regulation to first determine that: 1) the action fits within a categorical exclusion, 2) there are no extraordinary circumstances related to the action that may affect its significance, and 3) the action is not connected to other actions with potentially significant impacts.

In this CX Determination, DOE describes the proposed action and explains why it is categorically excluded.

**PROPOSED ACTIONS:** OE plans to use \$3.2 billion of American Recovery and Reinvestment Act of 2009 (Recovery Act) funds in a matching grant program that will cover up to fifty percent of investments planned by electric utilities and other entities for the deployment of Smart Grid technology, in accordance with Section 1306 of the Energy Independence and Security Act of 2007 (EISA). These grants will help implement the necessary digital upgrades to the electric grid enabling it to work more efficiently and securely.

Smart Grid investments qualifying under ESIA may include any of the following:

- (1) Transmission and distribution equipment fitted with monitoring and communications devices.
- (2) Metering devices, sensors, control devices, and other devices integrated with and attached to an electric utility system or retail distributor or marketer of electricity.
- (3) Software that enables devices or computers to engage in Smart Grid functions.
- (4) Expenditures for purchasing and installing such equipment that allows Smart Grid functions to operate and be combined or coordinated among multiple electric utilities and between that region and other regions.

CX TO BE APPLIED: Smart Grid elements identified in (1-4) above fit within the class of actions that are listed in appendix B to subpart D of Part 1021- Categorical exclusions applicable to specific agency actions. Specifically,

B1.7 Acquisition, installation, operation, and removal of communication systems, data processing equipment, and similar electronic equipment.

B2.2 Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

B4.6 Additions or modifications to electric power transmission facilities that would not affect the environment beyond the previously developed facility area including, but not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and crossarms.

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors.

In addition, some Smart Grid investments proposals also include projects that may fit within the class of actions that are listed in appendix A to subpart D of Part 1021- Categorical exclusions applicable to general agency actions, as well as appendix B to subpart D of Part 1021- Categorical exclusions applicable to specific agency actions. Specifically,

B1.19 Siting, construction, and operation of microwave and radio communication towers and associated facilities, if the towers and associated facilities would not be in an area of great visual value.

B4.7 Adding fiber optic cable to transmission structures or burying fiber optic cable in existing transmission line rights-of-way.

B4.11 Construction of electric power substations (including switching stations and support facilities) with power delivery at 230 kV or below, or modification (other than voltage increases) of existing substations and support facilities, that could involve the construction of electric powerlines approximately 10 miles in length or less, or relocation of existing electric powerlines approximately 20 miles in length or less, but not the integration of major new generation resources into a main transmission system.

B4.12 Construction of electric powerlines approximately 10 miles in length or less ,that are not for the integration of major new generation resources into a main transmission system.

B4.13 Reconstruction (upgrading or rebuilding) and/or minor relocation of existing electric powerlines approximately 20 miles in length or less to enhance environmental and land use values. Such actions include relocations to avoid right-of-way encroachments, resolve conflict with property development, accommodate road/highway construction, allow for the construction of facilities such as canals and pipelines, or reduce existing impacts to environmentally sensitive areas.

RATIONALE: The planned activities will involve the utilization of existing facilities and infrastructure to accomplish the goal of establishing a Smart Grid. The actions identified in the CXs above have been determined by DOE in the past to not individually or cumulatively have a significant effect on the human environment.

DETERMINATION: Based on OE's review of the above information concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1A), I have determined that the proposed action fits within the specified class of actions, other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

Signature:   
Brian Mills  
NEPA Compliance Officer  
Office of Electricity Delivery  
and Energy Reliability

Date: January 08, 2010