

PMC-ND

(1.08.09.13)

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



RECIPIENT: Missouri Department of Natural Resources' Division of Energy

STATE: MO

PROJECT TITLE: ARRA Repurpose Request

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-SEP-0002021	DE-EE0008655	GFO-0008655-001	

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.)
- B2.2 Building and equipment instrumentation** 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, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).
- B1.31 Installation or relocation of machinery and equipment** Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.
- B5.1 Actions to conserve energy or water** (a) Actions to conserve energy or water, demonstrate potential energy or water conservation, and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, manufacturers, and designers), organizations (such as utilities), and governments (such as state, local, and tribal). Covered actions include, but are not limited to weatherization (such as insulation and replacing windows and doors); programmed lowering of thermostat settings; placement of timers on hot water heaters; installation or replacement of energy efficient lighting, low-flow plumbing fixtures (such as faucets, toilets, and showerheads), heating, ventilation, and air conditioning systems, and appliances; installation of drip-irrigation systems; improvements in generator efficiency and appliance efficiency ratings; efficiency improvements for vehicles and transportation (such as fleet changeout); power storage (such as flywheels and batteries, generally less than 10 megawatt equivalent); transportation management systems (such as traffic signal control systems, car navigation, speed cameras, and automatic plate number recognition); development of energy-efficient manufacturing, industrial, or building practices; and small-scale energy efficiency and conservation research and development and small-scale pilot projects. Covered actions include building renovations or new structures, provided that they occur in a previously disturbed or developed area. Covered actions could involve commercial, residential, agricultural, academic, institutional, or industrial sectors. Covered actions do not include rulemakings, standard-settings, or proposed DOE legislation, except for those actions listed in B5.1(b) of this appendix. (b) Covered actions include rulemakings that establish energy conservation standards for consumer products and industrial equipment, provided that the actions would not: (1) have the potential to cause a significant change in manufacturing infrastructure (such as construction of new manufacturing plants with considerable associated ground disturbance); (2) involve significant unresolved conflicts concerning alternative uses of available resources (such as rare or limited raw materials); (3) have the potential to result in a significant increase in the disposal of materials posing significant risks to human health and the environment (such as RCRA hazardous wastes); or (4) have the potential to cause a significant increase in energy consumption in a state or region.
- B5.16 Solar photovoltaic systems** The installation, modification, operation, and removal of commercially available solar photovoltaic systems located on a building or other structure (such as rooftop, parking lot or facility, and mounted to signage, lighting, gates, or fences), or if located on land, generally comprising less than 10 acres 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 the State of Missouri Department of Natural Resources' Division of Energy. The Small Ag Grant program would help finance energy and water efficiency upgrades (identified through an energy audit) and renewable energy efforts to Missouri farmers and ranchers. The upgrades would occur in various agricultural fields, dairy, swine and poultry facilities, and agriculturally-focused buildings throughout Missouri.

The proposed activities listed below would generally require the retrofit or replacement of an existing unit (such as a motor) to increase the energy efficiency of a piece of equipment. Instances where new equipment, including farm equipment and renewable energy equipment would be purchased and/or installed are noted below:

1. Level 2 Energy Audits
2. Farm Energy
 - a. Solar power -installation of solar panels for pumps, panels, pipe and tanks. Panels would be added to existing water systems, appropriately sized photovoltaic (PV) system not to exceed 5kW.
 - b. Solar power fencers-includes replacement of existing PV equipment to electrify fences and/or the addition of new solar powered fencers not to exceed 5kW.
3. Livestock Equipment - Purchase electric insulated water tanks, both mobile and permanently installed including frost-free waterers for cows, sheep and horses
4. Farm Equipment - Installation of Global Positioning System (GPS) guidance systems for tractors, combines and sprayers
5. Irrigation Improvements on existing systems including installation of:
 - a. Flow meters, including pulse irrigator
 - b. Drip irrigation system
 - c. Irrigation nozzle replacement
 - d. Above ground pipe size upgrade
 - e. Tier 3 on existing systems and Tier 4 engines irrigation systems
6. Dairy Facility Improvements
 - a. Replace existing motors with Variable Frequency Drives (VFD)/Variable Speed Drives (VSD)
 - b. Replace existing refrigeration equipment with Plate Coolers for improved refrigeration efficiency
 - c. Replace existing heating equipment with heat reclaimers
 - d. Replace existing fans with High Volume Low Speed (HVLS) fans
 - e. Locate and repair air leaks on ventilation systems.
7. Swine Facility Improvements - Replace existing fans with High Volume Low Speed (HVLS) fans
8. Poultry Facility Improvements - Replace existing fans with High Volume Low Speed (HVLS) fans
9. Farm Buildings
 - a. Replace existing grain dryers with higher energy efficient grain dryers
 - b. Retrofit facility lighting with energy efficiency upgrades including lighting, occupancy sensors, and timers
 - c. Retrofit furnaces more energy efficient furnaces without the addition of new ventilation openings
10. Miscellaneous Improvements
 - a. Purchase of conservation tillage equipment limited to combine straw spreaders, planters, bedders, ridge-till cultivators, coulters, tool bars and drills, not including tractors and combines.
 - b. Retrofit high efficiency electric motors on farm equipment
 - c. Installation of Biomass /Boilers at existing facilities including poultry houses limited to 3 MMBTUs per hour or smaller system with appropriate Best Available Control Technologies
 - d. Installation of barn insulation – limited to fiberglass batts and/or blown in cellulose

After evaluation of the potential impacts, DOE has determined that the proposed activities would not have short-term or long-term adverse impacts to the floodplain, if activities were to occur within a floodplain. Additionally, DOE has determined that the project activities are not subject to the preparation and distribution of a notice of floodplain action as required under Subpart B of 10 CFR 1022 "Compliance with Floodplain and Wetland Environmental Review Requirements", as the proposed activities are minor modifications or additions to existing facilities to improve environmental conditions and the requirement is not applicable (10 CFR 1022.5(d)(3)).

The proposed activities would have no potential to cause effects to historic properties, if any were identified.

DOE also conducted a review of potential issues relating to other resources of concern and found that no effects would be expected to result from activities described above.

This NEPA determination applies only to projects funded under award DE-EE0008655.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

[Weatherization & Intergovernmental Programs Office - SEP](#)
This NEPA Determination does not require a tailored NEPA provision.
NEPA review completed by Diana Heyder, 09/08/21

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:

 Electronically Signed By: Casey Strickland
NEPA Compliance Officer

Date: 9/13/2021

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: _____