PMC-ND

(1.08.09.13)

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

RECIPIENT: U.S. Department of Energy - Office of Manufacturing and Energy Supply Chains **STATE:** Mult

PROJECT TITLE: IAC Implementation Grants

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
N/A	N/A	GFO-PIA-IACGrants-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.)
A11 Technical advice and assistance to organizations	Technical advice and planning assistance to international, national, state, and local organizations.
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.
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).
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.
B5.14 Combined heat and power or cogeneration systems	Conversion to, replacement of, or modification of combined heat and power or cogeneration systems (the sequential or simultaneous production of multiple forms of energy, such as thermal and electrical energy, in a single integrated system) at existing facilities, provided that the conversion, replacement, or modification would not have the potential to cause a significant increase in the quantity or rate of air emissions and would not have the potential to cause significant impacts to water resources.
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.
B5.17 Solar thermal systems	The installation, modification, operation, and removal of commercially available smallscale solar thermal systems (including, but not limited to, solar hot water systems) located on or contiguous to a building, and 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.
B5.18 Wind turbines	The installation, modification, operation, and removal of a small number (generally not more than 2) of commercially available wind turbines, with a total height generally less than 200 feet (measured from the ground to the maximum height of blade rotation) that (1) are located within a previously disturbed or developed area; (2) are located more than 10 nautical miles (about 11.5 miles) from an airport or aviation navigation aid; (3) are located more than 1.5 nautical miles (about 1.7 miles) from National Weather Service or Federal Aviation Administration Doppler weather radar; (4) would not have the potential to cause significant impacts on bird or bat populations; and (5) are sited or designed such that the project would not have the potential to cause significant impacts to persons (such as from shadow flicker and other visual effects, and noise). 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. Covered actions include only those related to wind turbines to be installed on land.
B5.19 Ground source heat pumps	The installation, modification, operation, and removal of commercially available smallscale ground source heat pumps to support operations in single facilities (such as a school or community center) or contiguous facilities (such as an office complex) (1) only where (a) major associated activities (such as drilling and discharge) are regulated, and (b) appropriate leakage and contaminant control measures would be in place (including for cross-contamination between aquifers); (2) that would not have the potential to cause significant changes in subsurface temperature; and (3) would be located 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.
B5.20 Biomass power plants	The installation, modification, operation, and removal of small-scale biomass power plants (generally less than 10 megawatts), using commercially available technology (1) intended primarily to support operations in single facilities (such as a school and community center) or contiguous facilities (such as an office complex); (2) that would not affect the air quality attainment status of the area and would not have the potential to cause a significant increase in the quantity or rate of air emissions and would not have the potential to cause significant impacts to water resources; and (3) would be located 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.
B5.22 Alternative fuel vehicle fueling stations	The installation, modification, operation, and removal of alternative fuel vehicle fueling stations (such as for compressed natural gas, hydrogen, ethanol and other commercially available biofuels) on the site of a current or former fueling station, or within a previously disturbed or developed area within the boundaries of a facility managed by the owners of a vehicle fleet. 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.
B5.23 Electric vehicle charging stations	The installation, modification, operation, and removal of electric vehicle charging stations, using commercially available technology, within a previously disturbed or developed area. Covered actions are limited to areas where access and parking are 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 authorize the administration of a grant program (Industrial Assessment Center (IAC) Implementation Grant Program, or “Program”) that would provide grants to small- and medium-sized manufacturing firms (SMMs) to implement recommendations from energy assessments to improve energy and material efficiency, enhance cybersecurity, increase productivity, and reduce waste and pollution at SMM

facilities.

This Program would involve market research, stakeholder engagement, information collection, identifying Program criteria and metrics, energy assessments, and implementation of energy efficiency measures and renewable energy technologies.

A variety of participants and projects may be funded through the Program. Specific locations and activities are not known at this time. In order to expedite NEPA review, project activities listed within the conditions of this NEPA determination (ND) are categorically excluded from further NEPA review, absent extraordinary circumstances, cumulative impacts, or connected actions that may lead to significant impacts on the environment, or any inconsistency with “integral elements” (as contained in 10 CFR Part 1021, Appendix B) that relate to a funded project. DOE does not anticipate any impacts to resources of concern due to the administration and implementation of the Program, provided the conditions of this NEPA determination are met.

Projects participating in the Program that have activities not listed within the conditions or do not conform to specified limitations within the listed activities will require additional NEPA review. For activities requiring additional NEPA review, recipients must complete the environmental questionnaire found at https://www.eere-pmc.energy.gov/NEPA.aspx and receive notification from DOE that a NEPA review has been completed prior to initiating the project or activities.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

This NEPA Determination only applies to activities funded through the Industrial Assessment Center (IAC) Implementation Grant Program that are completing activities outlined within the listed conditions.

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

This NEPA Determination does not apply to any activities not funded through the Industrial Assessment Center (IAC) Implementation Grant Program or that are not outlined within the listed conditions.

Include the following condition in the financial assistance agreement:

All undertakings must be done in accordance with applicable local building codes or the International Building Code, where applicable.

If, during project activities, historic properties or resources are discovered or there are unanticipated effects on historic properties located within a project's footprint after the undertaking has been initiated, the Recipient must immediately cease all operations and contact their DOE point of contact and GONEPA@ee.doe.gov.

All project activities identified for funding through the PIA must be listed within the following list of allowed activities. Project activities not included within this list of allowed activities or listed activities that do not conform to specified limitations require additional NEPA review. For activities requiring additional NEPA review, Recipients must complete the environmental questionnaire found at https://www.eere-pmc.energy.gov/NEPA.aspx and receive notification from DOE that a NEPA review has been completed prior to initiating the project or activities.

DOE has determined the following list of activities would not require additional NEPA review.

A. Intellectual, academic, and analytical activities including, but not limited to market research, stakeholder engagement, information collection, identifying Program criteria and metrics, energy assessment, data dissemination, and document preparation.

B. Exterior and/or interior energy efficiency work. Project work for interior spaces should ensure that no structural alterations are made; no demolition of walls, ceilings or floors occurs; no drop ceilings are added; or no walls are leveled with furring or moved. Activities are limited to the actions listed below:
1) Air sealing of the building shell, including caulking, weather-stripping, and other air infiltration control measures on windows and doors, and installing thresholds in a manner that does not harm or obscure historic windows or trim;
2) Sealing air leaks using weather stripping, door sweeps, and caulk and sealing major air leaks associated with

bypasses, ducts, air conditioning units, etc.;
3) Repair of minor roof and wall leaks prior to insulating attics or walls, provided repairs closely resemble existing surface;
4) Duct sealing, insulation, repair or replacement in unoccupied areas;
5) Install insulation on ducts and heating pipes;
6) Thermal insulation in walls, floors, ceilings, attics, crawl spaces, ducts and foundations;
7) Blown in wall insulation where no holes are drilled through exterior siding, no decorative plaster or other interior wall coating is damaged, or where holes have no permanent visible alteration to the structure;
8) Removable film on windows (if the film is transparent and does not harm or obscure historic windows or trim);
9) Retrofit and replacement of windows and doors (limited to locations less than 45 years old and not within a historic district);
10) Reflective roof coating that closely resembles the historic materials and form or restores the original features based on historic evidence that does not alter the roofline or is not on a primary roof elevation or is not visible from the public right-of-way;
11) Installing vents (such as continuous ridge vents covered with ridge shingles or boards, roof vents, bath and kitchen vents, soffit and frieze board vents or combustion appliance flues) if not located on a primary roof elevation or not visible from the public right-of-way;
12) Installing foundation vents, if painted or finished to match the existing foundation material and not visible from the public right of way;
13) Plumbing work, including installation of water heaters;
14) Electrical work, including improving lamp efficiency;
15) Repair or replace water heaters;
16) Install insulation on water heater tanks and water heating pipes;
17) Install waste heat recovery devices, including desuperheater water heaters, condensing heat exchangers, heat pump and water heating heat recovery systems, and other energy recovery equipment;
18) Repair or replace electric motors and motor controls like variable speed drives;
19) Incorporate lighting technologies such as dimmable ballasts, day lighting, controls, and occupant controlled dimming;
20) Add reflectors, LED exit signs, efficient HID fixtures, and occupancy (motion) sensors;
21) Convert incandescent lighting to fluorescent or LED;
22) Energy efficient light fixtures, including ballasts (Replacement);
23) Upgrading non-historic exterior lighting fixtures (replacement with metal halide bulbs, LEDs, or others) along with ballasts, sensors and energy storage devices not visible from any public right of way;
24) Energy audits and feasibility studies;
25) Adding or replacing existing building controls systems including HVAC control systems, cybersecurity infrastructure like network and data security programs, and the replacement of building-wide pneumatic controls with digital controls, thermostats, dampers, and other individual sensors like smoke detectors and carbon monoxide detectors (wired or non-wired), provided such work does not affect character-defining features of the building;
26) New installation of non-hard wired devices including photo-controls, occupancy sensors, carbon dioxide, thermostats, humidity, light meters and other building control sensors, provided the work conforms with applicable state and local permitting requirements;
27) Conversion of fossil fuel based industrial process equipment to electrical operation equipment that is not visible from any public right of way, and does not affect character-defining features of the building;
28) Installation of new electrically-based industrial process equipment indoors, that is not visible from any public right of way, does not affect character-defining features of the building, and meets all regulatory requirements;
29) Adding variable speed drive motors;
30) Furnace or hot water tank replacement that does not require a visible new supply or venting;
31) Replacement of existing HVAC equipment including pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors or heat exchangers that do not require a change to existing ducting, plumbing, electrical, controls or a new location, or if ducting, plumbing, electrical and controls are on the rear of the structure or not visible from any public right of way, and provided such work does not affect character-defining features of the building;
32) Modify duct and pipe systems so heating and cooling systems operate efficiently and effectively, including adding return ducts, replace diffusers and registers, replace air filters, install thermostatic radiator controls on steam and hot water heating systems, provided such work does not affect character-defining features of the building;
33) Adding adjustable speed drives such as fans on air handling units, cooling tower fans, and pumps;
34) Clean, tune, repair or replace heating systems, including furnaces, boilers, heat pumps, vented space heaters, and wood stoves;
35) Clean, tune repair or replace cooling systems, including central air conditioners, window air conditioners, heat pumps, and evaporative coolers;
36) Conduct other efficiency improvements on heating and cooling systems, including replacing standing pilot lights with electronic ignition devices and installing vent dampers;
37) Installation of programmable thermostats, outdoor reset controls, UL listed energy management systems or building automation systems and other HVAC control systems, provided such work does not affect character-defining features of the building.

38) Upgrade of electric utility service entry to accommodate electrification of HVAC, industrial process, electric vehicles or other electric equipment;
39) Post-implementation measurement & verification of energy efficiency measures;
40) Installation of energy efficient lighting including light poles (may also be installed within a utility easement if no trees are removed);
41) Purchase and installation energy/water efficient residential and commercial appliances and equipment (including, but not limited to, grid-interactive building technologies, energy or water monitoring and control systems, heat pumps, air conditioners, and related software);
42) Installation of electric appliances, including replacement of appliances that use fossil fuels to electric, such as heat pumps for water heating, heating/cooling, electric dryers, and stoves;
43) Retrofit and installation of energy-efficient commercial kitchen equipment, such as efficient refrigerators, freezers, dishwashers;
44) Retrofit of energy efficient pumps and motors, for such uses as (but not limited to) wastewater treatment plants, where it would not alter the capacity, use, mission, or operation of an existing facility;
45) Electrical system upgrades required to enable energy efficiency and/or clean energy measures.

C. Development, implementation, and installation of onsite energy or renewable energy technology installed in or on existing buildings or within the boundaries of a facility (defined as an already disturbed area due to regular ground maintenance) less than 45 years old and not within a historic district, no trees are removed, are appropriately sized, and are limited to:
1) Solar Electricity/Photovoltaic—appropriately sized system or unit not to exceed 60 kW including community solar projects.
2) Wind Turbine—20 kW or smaller.
3) Solar Thermal (including solar thermal hot water)—system must be 200,000 BTU per hour or smaller.
4) Ground Source Heat Pump—5.5 tons of capacity or smaller, horizontal/vertical, ground, closed-loop system.
5) Installation of Combined Heat and Power System—systems sized appropriately for the buildings in which they are located, not to exceed peak electrical production at 300kW.
6) Biomass Thermal—3 MMBTUs per hour or smaller system with appropriate Best Available Control Technologies (BACT) installed and operated.

D. Installation of fueling pumps and systems (but not storage tanks) for fuels such as compressed natural gas, hydrogen, ethanol, and other commercially available biofuels installed on the site of a current fueling station.

E. Development and installation of energy storage systems that are installed in or on an existing building or within the boundaries of a facility (defined as an already disturbed area due to regular ground maintenance) less than 45 years old and not within a historic district and are appropriately sized not to exceed 1,000 kWh.

F. Installation of electric vehicle supply equipment (EVSE), including testing measures to assess the safety and functionality of the EVSE, restricted to existing footprints and levels of previous ground disturbance, within an existing parking facility defined as any building, structure, land, right-of-way, facility, or area used for parking of motor vehicles. All activities must use reversible, non-permanent techniques for installation, where appropriate, use the lowest profile EVSE reasonably available that provides the necessary charging capacity; place the EVSE in a minimally visibly intrusive area; use colors complementary to surrounding environment, where possible, and are limited to the current electrical capacity. This applies to Level 1, Level 2, or Level 3 (also known as Direct Current (DC) Fast Charging) EVSE for community and municipal fleets.

Notes:

Office of Manufacturing and Energy Supply Chains (MESC)
This NEPA determination requires legal review of the tailored NEPA provision.
NEPA review completed by Casey Strickland, 7/13/2023.

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.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Casey Strickland Date: 7/14/2023

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- [x] 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