

Programmatic Environmental Assessment

**Energy Efficiency and Conservation Loan Program
Proposed subpart H of 7 CFR Part 1710**

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Energy Efficiency and Conservation Loan Program

Programmatic Environmental Assessment

EXECUTIVE SUMMARY

The U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS) is proposing policies and procedures for providing financial assistance through loans and loan guarantees to support a new energy efficiency and conservation (EE) program that would enable rural electric utilities (Primary Recipients) to finance, sponsor, and implement EE activities for the benefit of rural consumers (Ultimate Recipients) in their service territory. RUS has issued a Notice of Proposed Rulemaking, which would add subpart H to the final rule, 7 CFR part 1710, “General and Pre-Loan Policies and Procedures Common to Electric Loans and Guarantees,” finalized December 20, 1993. Under Section 2 of the Rural Electrification Act of 1936, (7 U.S.C. 901 *et seq.*), as amended (RE Act), RUS is authorized to assist rural electric utility borrowers in implementing demand-side management, energy efficiency and conservation programs, and on-grid and off-grid renewable energy systems. Subpart H would define RUS’s EE program, giving RUS the authority to provide financial assistance to Primary Recipients, who would act as intermediary lenders, passing on financial assistance for eligible energy efficiency and conservation improvements to be implemented at the Ultimate Recipients’ premises.

RUS has prepared this programmatic environmental assessment (PEA) for the proposed new loan program as part of the rulemaking process in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508), and RUS’s “Environmental Policies and Procedures” (7 CFR part 1794). Because this PEA covers a new agency program, it has been prepared in accordance with the following provisions of the CEQ regulations:

- 40 CFR §1502.4(b), which states that environmental documents “may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs or regulations (§ 1508.18). Agencies shall prepare...[environmental documents] on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking.”
- 40 CFR § 1502.4(c)(2), which states: “When preparing statements on broad actions ...agencies may find it useful to evaluate the proposal(s)...[g]enerically, including actions which have relevant similarities.”
- 40 CFR § 1502.4(d), which states: “Agencies shall as appropriate employ...tiering (§ 1502.20) and other methods listed in §§ 1500.4 to relate broad and narrow actions and to avoid duplication and delay.”
- 40 CFR § 1500.4, which states that agencies shall reduce excessive paperwork by “...[u]sing program...environmental [documents] and tiering from [these documents] of broad scope to those of narrower scope, to eliminate repetitive discussions of the same issues (§§ 1502.4 and 1502.20).”

In accordance with CEQ regulations compelling Federal agencies to reduce excessive paperwork, duplication of effort, and to promote a more efficient decision-making process for program implementation, this PEA serves as a programmatic, broad-scope, environmental analysis of the agency's proposed new EE program. This PEA evaluates two alternatives – The “No Action Alternative” and the “Proposed Action” to establish an energy efficiency and conservation loan program as authorized by the 2008 Farm Bill.

In accordance with the tiering provisions of CEQ regulations, RUS will develop an Environmental Tool Kit that will serve as the mechanism by which RUS would conduct more detailed environmental analysis for EE activities proposed by Primary Recipients and authorized under the RUS's new EE program. The Environmental Tool Kit will be an interactive document that covers all of the topics in the environmental consequences sections of this PEA and guides the user to provide additional documentation where needed and incorporate analysis in the PEA where no additional analysis is needed. Primary Recipients will complete the Environmental Tool Kit process, resulting in a tiered environmental document that will be submitted to RUS with the Primary Recipient's EE work plan (EEWP). RUS environmental staff will review EE program environmental documents generated through the Environmental Tool Kit to determine if further evaluation is needed. Primary Recipients, under RUS oversight, would perform a prescribed level of environmental review activities when they provide EE program assistance to Ultimate Recipients. RUS reserves the right to supplement this PEA to expand upon particular elements of the analysis more fully as may be warranted by future EE program developments.

Comments:

The proposed rulemaking for subpart H was published in the Federal Register on July 26, 2012 and open for public comment through September 26, 2012. The 30-day public review period for this PEA has been initiated with a Notice of Availability published in the Federal Register. No financial obligations under the proposed subpart H will be processed until RUS has made a determination of environmental finding for the actions considered in the rulemaking. If you wish to comment please send comments to Deirdre M. Remley, Environmental Protection Specialist, RUS, Water and Environmental Programs, Engineering and Environmental Staff, 1400 Independence Avenue, SW, Stop 1571, Washington, DC 20250-1571, telephone: (202) 720-9640 or e-mail: deirdre.remley@wdc.usda.gov . The PEA is available online at <http://www.rurdev.usda.gov/UWP-ea.htm> or you may contact Ms. Remley for a hardcopy.

Abbreviations and Acronyms

USACE	U.S. Army Corps of Engineers
BTU	British thermal unit
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
EE	Energy Efficiency and Conservation
EO	Executive Order
DSM	Demand-Side Management
ESA	Endangered Species Act
HVAC	Heating, Ventilation, and Air Conditioning
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
PEA	Programmatic Environmental Assessment
RUS	Rural Utilities Service
NRCS	Natural Resources Conservation Service
NRECA	National Rural Electric Cooperative Association
NRHP	National Register of Historic Places
USEPA	U.S. Environmental Protection Agency
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

Definitions

British Thermal Unit (BTU): The quantity of heat required to raise one pound of water one degree Fahrenheit. This unit can be used to measure energy input and output.

Demand: The electrical load averaged over a specified interval of time. Demand is expressed in kilowatts, kilovolt amperes, kilovars, amperes, or other suitable units. The interval of time is generally 15 minutes, 30 minutes, or 60 minutes.

Demand-Side Management (DSM): Under the proposed amendment to 7 CFR § 1710.2, DSM is defined as the deliberate planning and/or implementation of activities to influence Consumer use of electricity provided by a distribution borrower to produce beneficial modifications to the system load profile. Beneficial modifications to the system load profile ordinarily improve load factor or otherwise help in utilizing electric system resources to best advantage consistent with acceptable standards of service and lowest system cost. Load profile modifications are characterized as peak clipping, valley filling, load shifting, strategic conservation, strategic load growth, and flexible load profile. (See, for example, publications of the Electric Power Research Institute (EPRI), 3412 Hillview Avenue, Palo Alto, CA 94304, especially “Demand-Side Management Glossary” EPRI TR-101158, Project 1940-25, Final Report, October 1992.) DSM includes energy conservation programs. It does not include sources of electrical energy such as renewable energy systems unless the power flow into the grid from such an interconnected resource is incidental to the operation of the source. A small scale renewable energy source with a nameplate capacity 50 percent or less than the average anticipated load of the associated end user(s) is presumed to be incidental.

Demand savings: The quantifiable reduction in the load requirement for electric power, usually expressed in kilowatts (kW) or megawatts (MW) such that it reduces the cost to serve the load.

Electric utility system: As defined in 7 CFR part 1710, an electric system refers to all of an RUS borrower's interests in all electric production, transmission, distribution, conservation, load management, general plant and other related facilities, equipment or property and in any mine, well, pipeline, plant, structure or other facility for the development, production, manufacture, storage, fabrication or processing of any fuel or in any facility or rights with respect to the supply of water, in each case for use, in whole or in major part, in any of the borrower's generating plants, including any interest or participation of the borrower in any such facilities or any rights to the output or capacity thereof, together with all lands, easements, rights-of-way, other works, property, structures, contract rights and other tangible and intangible assets of the borrower in each case used or useful in such electric system.

Eligible Borrower: As defined in the proposed subpart H, this term means an electric utility that has direct or indirect responsibility for providing retail electric service to persons in a rural area. As defined in 7 CFR § 1710.101, an eligible borrower may be corporations, states, territories

and subdivisions and agencies such as municipalities, people's utility districts, and cooperatives, nonprofits, limited-dividend, or mutual associations that provide retail electric service needs to rural areas or supply the power needs of distribution borrowers in rural areas. Although 7 CFR § 1710.101 defines a wide range of eligible borrowers, the majority of RUS borrowers are not-for-profit rural electric cooperatives providing electric service to rural consumers who are members of the cooperative. Consistent with RUS environmental policies on tiered actions, this PEA uses the term "Primary Recipient" to refer to an "Eligible Borrower" as defined in the proposed subpart H.

Energy audit: An inspection and analysis of energy flows in a building, process, or system with the goal of identifying opportunities to enhance energy efficiency. The audit should result in an objective standard-based technical report containing recommendations for improving the energy efficiency at the Ultimate Recipient premises. The report should also include a cost benefit analysis reflecting the estimated benefits and costs of pursuing each recommendation.

Energy efficiency and conservation measures: Equipment, materials and practices that when installed and used at a consumer's premises result in a verifiable reduction in energy consumption, measured in BTUs relative to a base level of output. The ultimate goal is the reduction of utility energy needs at the consumer premises.

Energy Efficiency and Conservation program (EE program): The RUS program that finances a program of activities undertaken or financed by a utility within its service territory to reduce the amount or rate of energy used by consumers relative to a base level of output

Fuel switching: Fuel switching as in 1) the replacement of existing fuel consuming equipment using a particular fuel with more efficient fuel consuming equipment that uses another fuel; or 2) the installation of non-electric fuel consuming equipment to facilitate management of electric system peak loads. Fuel switching to fossil or biomass fueled electric generating equipment is expressly excluded.

Load: The electricity delivered to power utilization equipment performing its normal function.

Load factor The ratio of the average load over a designated period of time to the peak load occurring in the same period. It is a measure of actual electricity consumed relative to total potential consumption. Used when analyzing electricity consumption, a loading factor of 0.5 means that, on average, end users are consuming 50% of the amount of power that would have been used if energy usage was at the highest demand level during the entire designated period.

Load Management: Steps taken to reduce power demand at peak load times or to shift some of it to off-peak times (e.g. peak hours, peak days and/or peak seasons)

Name plate: A metal tag attached to a machine or appliance that contains information such as brand name, serial number, voltage, power ratings under specified conditions, and other manufacturer supplied data. Generator nameplate capacity (installed) is the maximum rated

output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer.

Net Utility Plant: The amount constituting the total utility plant of the borrower, less depreciation, computed in accordance with RUS accounting requirements

Peak demand (or maximum demand): The highest demand measured over a selected period of time, such as one month

Peak demand reduction: A decrease in demand on an electric utility system during the system's peak period, calculated as the reduction in maximum average demand achieved over a specified interval of time.

Power: The rate of generating, transferring, or using energy. The basic unit is the watt, where one watt is approximately 3.41213 BTU/hr.

Relamping: The initial conversion of bulbs or light fixtures to more efficient lighting technology but not the replacement of like kind bulbs or fixtures after the initial conversion.

Seasonal Energy Efficiency Rating (SEER): A commonly used measure of efficiency of consumer central air conditioners and heat pumps. It is the ratio of cooling output divided by electric energy input.

Smart Grid Investments: Capital expenditures for devices or systems capable of providing real-time, two-way (utility and consumer) information and control protocols for individual consumer-owned or operated appliances and equipment, usually through a consumer interface or smart meter.

Ultimate Recipient: As defined in the proposed subpart H, an Ultimate Recipient is a consumer that receives a loan from a Primary Recipient as part of the EE program. An Ultimate Recipient could be a residential, commercial or industrial consumer.

Utility Energy Services Contract: A contract whereby a utility provides a consumer with comprehensive energy efficiency improvement services or demand reduction services.

Utility Service Provider (Utility): An entity in the business of providing retail electric service to consumers (distribution entity) or an entity in the business of providing wholesale electric supply to distribution entities (generation entity) or an entity in the business of providing transmission service to distribution or generation entities (transmission entity), where, in each case, the entities provide the applicable service using self-owned or controlled assets under a published tariff that the entity and any associated regulatory agency may adjust. Some utilities provide combinations of these different types of electric services.

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1.0 PURPOSE AND NEED

1.1 Background

The Rural Utilities Service (RUS), one of three agencies within USDA's Rural Development Mission Area, assists eligible rural communities by providing financial assistance to Eligible Borrowers for electric, telecommunications, and water infrastructure. Today's RUS Electric Program is the successor to the Rural Electrification Administration, established in 1935. The RUS Electric Program loan portfolio includes approximately 650 electric utility borrowers with aggregate outstanding loans and loan guarantees exceeding \$43 billion. The Electric Program delinquency rate is less than 0.5%. Eligible Borrowers include corporations, states, territories and subdivisions and agencies such as municipalities, people's utility districts, and cooperatives, nonprofits, limited-dividend, or mutual associations; all of which provide electric service in rural areas through generation, transmission, and/or distribution facilities. RUS loan funds are used to finance the construction, maintenance, upgrades, and operation of electric generating plants, electric transmission, and distribution lines. Under Section 2 of the Rural Electrification Act of 1936 (7 U.S.C. 901 et seq.), as amended (RE Act), the Secretary of Agriculture is "authorized and empowered to make loans in the several States and Territories of the United States...for the purpose of assisting electric borrowers to implement demand side management, energy efficiency and conservation programs, and on-grid and off-grid renewable energy systems."

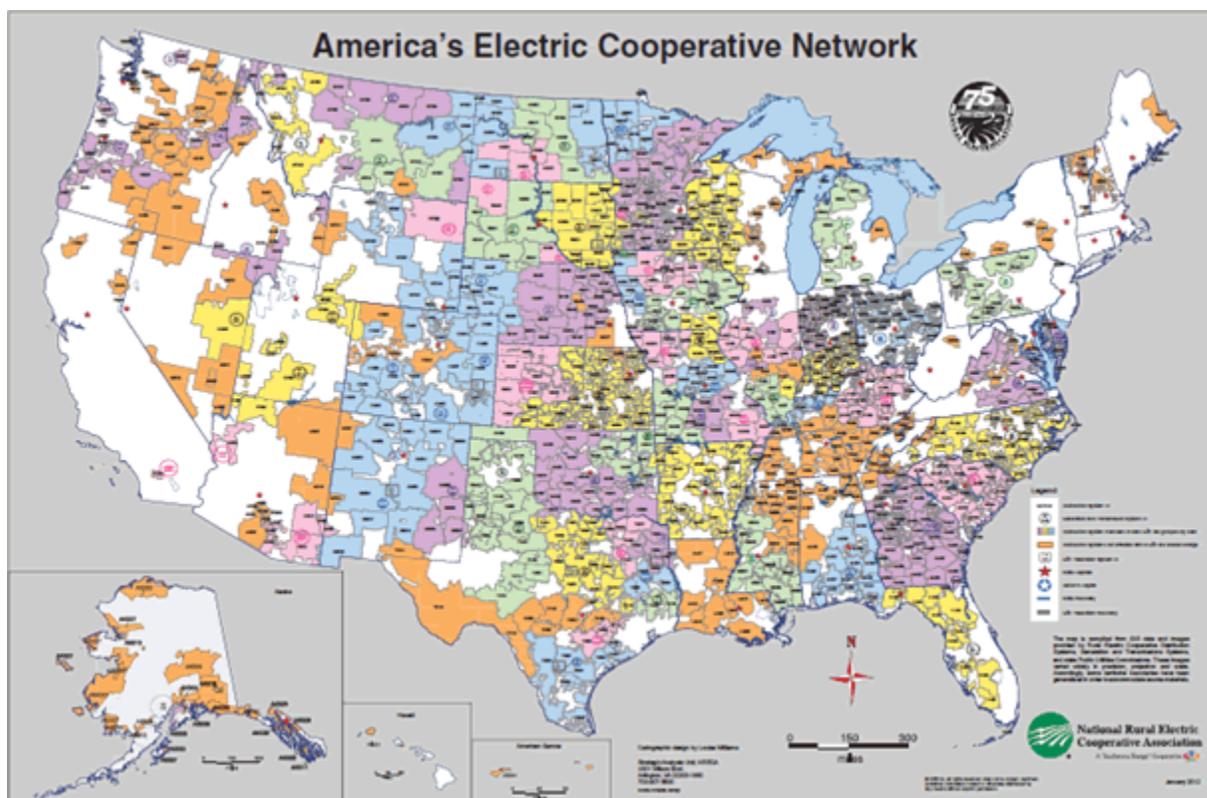


Figure 1 – Map showing electric cooperatives throughout the United States (Source: NRECA 2012)

The energy efficiency and conservation programs provision of the RE Act evolved over the last three decades. In 1980, RUS developed an Energy Resources Conservation (ERC) loan program by issuing RUS Bulletin 20-23, Section 12 “Extensions for Energy Resources Conservation Loans.” Under the authority of Section 12 of the RE Act, the Administrator used broad discretion to defer amortization of loans for existing RUS borrowers for the purpose of empowering these utilities to make funds available to their customers for energy conservation measures such as caulking, weather stripping, heat pump systems, water heaters, central heating and air conditioning system replacements, ceiling/flooring/duct insulation, and storm and thermal windows. Utilities provided energy conservation assistance to consumers using funds that would have otherwise been used to pay their debts to RUS. As such, rural electric utilities acted as intermediaries by providing financial assistance to rural consumers to implement RUS’s ERC program. In 1990, Congress amended and expanded Section 12 of the RE Act to allow deferments to enable borrowers to provide financing to local businesses to stimulate rural economic development. In 2002, RUS codified the ERC loan program at 7 CFR part 1721 subpart B, which superseded Bulletin 20-23. In 2008, Congress amended Section 12 again to authorize energy audits and energy efficiency measures and devices to reduce demand on electric systems. Most recently, Section 6101 of the Food, Conservation, and Energy Act of 2008 (also known as the 2008 Farm Bill) amended Sections 2(a) and 4 of the RE Act by inserting “efficiency and” before “conservation” each place it appears. To implement this new focus of the program, RUS proposes to amend 7 CFR part 1710 by adding a new subpart H entitled “Energy Efficiency and Conservation Loan Program.” This PEA presents an environmental analysis of the new agency program that would be codified under the proposed subpart H.

1.2 Overview of the Proposed Action

Under the authority of the 2008 Farm Bill “efficiency and” provisions amending the RE Act, RUS proposes to amend 7 CFR part 1710 by adding a new subpart H entitled “Energy Efficiency and Conservation Loan Program,” which would expand upon policies and procedures specific to loans for a new Energy Efficiency and Conservation (EE) program. This program would allow new financing opportunities for RUS borrowers to provide energy efficiency activities to businesses and homeowners in rural America. EE program investments would include the eligible purposes of demand-side management (DSM) and energy conservation as well as investments resulting in better management of existing energy loads or a reduction in investment needed for additional electric facilities. Under the EE program, new and existing Primary Recipients would initiate applications for EE program participation by submitting an EE program work plan (EEWP). New Primary Recipients – those who are not already RUS borrowers – would include only applicants who are will to use a mortgage as collateral for the loan with the understanding that RUS’s approval would incorporate a mortgage filed in all counties where the applicant has real property. EEWP’s would describe EE activities the Primary Recipient proposes to implement in their service territories, and EEWP’s would be submitted to RUS with other supporting documents as defined in the proposed subpart H. Upon approval of application materials, RUS would provide insured or guaranteed loans to Primary

Recipients, who would act as intermediaries to finance or otherwise fund eligible EE activities as detailed in their approved EEWP to Ultimate Recipients.

The process for applying for EE Program loans is intended to largely conform to the RUS's existing process for loans relating to other eligible purposes. Accordingly, the requirements discussed throughout 7 CFR part 1710 apply equally to EE Program loans unless otherwise stated after giving effect to the proposed conforming amendments incorporated in this proposed rulemaking. The proposed subpart H is not intended to duplicate requirements otherwise prescribed in 7 CFR part 1710, but rather draws on existing requirements and supplements them as necessary to apply to the EE program. It addresses federal requirements that apply to RUS direct loans to Primary Recipients who act as intermediary lenders to make EE program investments through loan programs they can offer to Ultimate Recipients in their service area. Where there is an express conflict with requirements elsewhere in 7 CFR part 1710, the provisions of the proposed subpart H would apply, but otherwise the proposed subpart H is not intended to supplant the applicability of the rest of 7 CFR part 1710 or any other applicable parts in the Code of Federal Regulations.

Energy Efficiency is defined in the proposed subpart H as the degree a system or component performs its designated function with minimum consumption of resources. This term is also used to describe eligible load modification investments. A program to finance photovoltaic (solar) installations, for example, would typically be classified as distributed renewable generation, not an energy efficiency measure. Distributed solar investments, however, including those made by individual consumers, may also have a positive impact on an interconnected utility's energy load profile and/or facilitate its DSM. Therefore, these types of renewable energy systems would be eligible activities under the EE program where any associated power flow from them into the grid is incidental. Conversely, renewable energy systems, including small-scale systems, which are constructed with the primary purpose of supplying energy to the grid, would not be considered an energy efficiency investment under the EE program, because these systems are already covered by existing RUS's loan programs that finance renewable energy systems for generation purposes.

The operative distinctions between eligible EE program investments and other RUS loan programs are: 1) the EE program assets would usually be on the consumer side of the meter; and 2) to the extent these assets deliver electricity to the grid, it will not exceed an incidental amount.

A detailed description of proposed eligible activities and methods of implementing the EE program may be found in Section 2.2 of Chapter 2.0, "Alternatives Considered," of this PEA. The list of eligible EE program activities and resulting assets that may be financed under the provisions of subpart H is not intended to be exhaustive. It is RUS's intent to facilitate flexibility for Primary Recipient's to propose and implement EE program activities consistent with the utility's resources and its service territory's consumer energy use profiles.

1.3 Need for the Action

The proposed EE program addresses DSM and load growth by providing a direct loan program that also benefits consumers who would save on energy costs through the program. While RUS has been able to provide similar benefits in the past under the Energy Resource Conservation (ERC) program through deferments of direct loans to its borrowers, RUS currently delivers nearly all of its electric program assistance in the form of loan guarantees. Because guaranteed loans, unlike direct loans, are not eligible deferments, loan deferment is no longer an effective means of providing RUS borrowers with tools and incentives to support energy efficiency and conservation programs. Consequently, RUS has determined that it is now necessary and appropriate to develop a loan program to support the purposes of the EE provisions in the RE Act through direct funding for these purposes.

The primary differences between the existing ERC program and the proposed EE program are: 1) the existing ERC program is limited to direct loan deferments and is not available for RUS guaranteed loans nor through a direct loan authority for EE purposes, 2) the proposed list of eligible EE program activities is more extensive than for the ERC program, 3) where applicable, EE program assets obtained through loans would be an integral part of the Ultimate Recipient's real property that would typically transfer with the property title under applicable state laws, and 4) the term of financing available under the EE program is longer than the 5-year term limit for deferments under the ERC loan program.

Drawing on more than three decades of successful experience using rural electric utilities as local intermediaries to accomplish RE Act objectives, RUS proposes to deliver an energy efficiency program that will benefit both Ultimate Recipients and the electric systems served by Primary Recipients. Ultimate Recipients would benefit from lower energy costs, and Primary Recipients would benefit from lowering energy load at the consumer level, thereby improving DSM and utilities' ability to meet growing energy needs without having to finance and install new facilities.

The need for RUS to implement an EE program is underscored by the strong support for energy efficiency measures among rural electric cooperatives. Although 7 CFR § 1710.101 defines a wide range of eligible borrowers, the majority of RUS borrowers are not-for-profit rural electric cooperatives providing electric service to rural consumers who are members of the cooperative. RUS anticipates that rural electric cooperatives would be the majority of Primary Recipients under the EE program. According to the National Rural Electric Cooperative Association, 96% of cooperatives have some form of energy efficiency program, including financial incentives in 70% of cooperatives, and 73% of rural electric cooperatives plan to significantly expand existing efficiency programs in the next two years (NRECA 2012). Rural electric cooperatives are responsible for nearly 25% of residential peak load management capacity, and while they are responsible for 10% of retail electricity sales nationwide, they contribute to 20% of actual peak demand reduction. Access to low-interest loans can increase the potential for success of EE programs operated by rural electric cooperatives.

1.4 Goals of the Proposed EE Program

The goals of the EE program may include one or more of the following: (1) to increase energy efficiency for the Ultimate Recipient, (2) to modify electric load such that there is a reduction in overall system demand, (3) to effect a more efficient use of existing electric distribution, transmission, and generation facilities, (4) to attract new businesses and create jobs in rural communities by investing in energy efficiency, and (5) to encourage the use of renewable energy systems to accomplish either DSM or a reduction in the consumption of conventional fossil fuel within a utility's service territory.

1.4.1 Relationship of the EE Program to Legislation and Policies

By adding "energy efficiency" in the 2008 Farm Bill as a legislative purpose for RE Act loans, Congress gave the RUS Administrator discretion to develop appropriate methods to accomplish this purpose. While RUS's shift from direct loan programs to loan guarantees virtually eliminated the agency's ability to grant deferments to rural electric utilities to support consumer-level energy efficiency and conservation, the proposed EE program would allow RUS to provide direct loans to rural electric utilities specifically for the purpose of providing energy efficiency and conservation opportunities for Ultimate Recipients.

The proposed subpart H supports the Recovery through Retrofit Initiative (RTR). This initiative was announced by the Administration in May 2009 and included a task to the CEQ to "develop a proposal for Federal actions that would expand green job opportunities in the United States and boost energy savings by improving home energy efficiency." The CEQ prepared a report, "Recovery Through Retrofit," which was released in October 2011. According to the CEQ report, "Making American homes and buildings more energy efficient presents an unprecedented opportunity for communities throughout the country." The RTR report builds on investments made in the American Recovery and Reinvestment Act of 2009 (Recovery Act) to expand the home energy efficiency and retrofit market. Home retrofits can potentially help people earn money, as home retrofit workers, while also helping them save money, by lowering their utility bills. By encouraging nationwide weatherization of homes, workers of all skill levels will be trained, engaged, and will participate in ramping up a national home retrofit market." The report calls on Federal agencies to promote programs – in partnership with states, cities, counties, and the existing home energy industry – to provide incentives to address many of the challenges currently facing the energy efficiency retrofit market.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Alternative A – No Action Alternative

Under this alternative, RUS would not fund or implement the EE Program, and RUS would not have a vehicle for offering Primary Recipients financial assistance to improve DSM through energy efficiency activities or meet RUS's support for the RTR Initiative. RUS would continue to operate its existing programs with no change in management direction with regard to making direct loans to Primary Recipients to promote energy efficiency and conservation measures in their service territories.

2.2 The Proposed Action

Under this Alternative, RUS would add subpart H to 7 CFR part 1710, and the agency would implement the proposed EE program. The EE program would provide loans to Primary Recipients, who are rural electric utility service providers, for utility-designed and directed activities in which the Primary Recipient would act as an intermediary lender to use RUS financing to make loans to implement EE activities at consumers' (Ultimate Recipients') premises.

Under the EE program, only electric utility systems would be Primary Recipients. Primary Recipients may be generation and transmission utilities, their distribution members, and/or unaffiliated distribution borrowers who are current on their loan payments and in compliance with their loan documents.

The EE program would be comprised of a variety of activities, performed by either the Primary Recipient or third parties. Third parties may be qualified local contractors hired by the Primary Recipient or by the Ultimate Recipient. In some cases, such as installation of increased efficiency lighting (re-lamping), the Ultimate Recipient may conduct an EE program activity at their premises. The proposed subpart H sets forth the policies and procedures related to eligible EE program activities where RUS would finance: 1) energy efficiency activities undertaken by the Primary Recipient itself, 2) loans made by the Primary Recipient to finance energy efficiency projects undertaken by others, and 3) investments made by the Primary Recipient to accomplish their obligations under utility energy services contracts.

The types of activities that would be eligible for RUS financing under subpart H include but are not limited to: 1) residential and commercial energy audits; 2) community awareness and outreach programs; 3) services, materials, and equipment provided by a qualified local contractor to improve energy efficiency for energy consumers; and 4) energy efficiency loans made by the Primary Recipient to its customers. Below is a list of EE program activities that would qualify for RUS financial assistance.

2.2.1 Eligible EE Program Activities and Investments

As defined in the proposed 7 CFR §1710. 406(b), eligible EE program activities and investments may include, but are not limited to, the following:

- Energy efficiency and conservation measures where assets financed at a consumer premises can be characterized as an integral part of the real property that would typically transfer with the title under applicable state law
- Small-scale renewable energy systems such as solar panels, including on or off-grid renewable energy systems and fuel cells;
- DSM investments excluding smart grid investments;
- Energy audits;
- Utility energy services contracts;
- Consumer education and outreach programs;
- Power factor correction equipment on the consumer side of the meter;
- Relamping to more energy efficient lighting; and
- Fuel Switching
- Other activities and investments as approved by RUS as part of the EE Program

Renewable energy systems have a role in the proposed programs, because they can generate a certain amount of energy at the consumer level, which can be used as load modifiers. Load modifiers can increase the efficiency of energy consumption, decreasing energy used and reducing load during system peaks. The utility systems of Primary Recipients under the EE program would benefit from the conservation savings of renewable energy systems used by Ultimate Recipients at their premises.

2.2.2 Energy Efficiency Performance Standards

Performance standards. Borrowers are encouraged to use existing energy efficiency standards or criteria such as those from ENERGY STAR, FEMP, ANSI, or other voluntary consensus standards.

2.2.3 Methods to be used to Analyze and Evaluate Energy Efficiency

The proposed subpart H recognizes that energy may take a variety of forms, not just electricity. The British thermal unit (BTU) is a standard measurement unit, defined as the quantity of heat required to raise one pound of water one degree Fahrenheit. Energy efficiency can be measured by BTU input relative to BTU output, and RUS would use this measurement to evaluate a wide range of eligible EE program activities. Using this standardized unit of measure would facilitate review of the greatest potential contribution of a Primary Recipient to optimize the energy consumption profile of its service territory.

2.2.4 Implementing the EE Program

Primary Recipients shall follow the appropriate RUS guidance documents or other publications as RUS deems appropriate that contains and describes best practices for energy efficiency and conservation measures associated with different technologies. RUS would make this guidance document or publication publicly available and revise it from time to time as RUS deems necessary.

While subpart H does not require EE audits to be performed at consumer premises to approve EE program activities, RUS requires that if a Primary Recipient proposes to provide EE audits to their Ultimate Recipients, the overall EE program activity area that includes audits must also provide assistance to implement changes suggested by the auditor. Additionally, only those activities related to EE audits that are expected to meet at least minimum performance objectives would be eligible to be funded under the EE program. This minimum performance threshold is met when EE audit recommendations taken together and implemented would achieve at least a 10% reduction in overall annualized energy consumption at a specific premise. An activity that funds EE audits without providing assistance for implementing audit recommendations would not be an eligible EE program activity.

EE improvements installation work may be performed by the Primary Recipient, a qualified contractor, or an employee of the Primary Recipient, or a qualified contractor hired by the Ultimate Recipient. The nature by which EE improvements will be made will be at the discretion of the Primary Recipient within the scope of RUS guidelines.

2.2.5 Managing EE Program Loans, Investments, and Assets

The Primary Recipient Application Process

The process for applying for EE program loans is intended to largely conform to RUS's existing process for loans for other eligible purposes. Accordingly, the requirements discussed throughout 7 CFR part 1710 are proposed to apply equally to EE program loans, unless otherwise stated, and after giving effect to the proposed conforming amendments incorporated in the proposed rule. EE program expenditures by the Primary Recipient will be reimbursed by RUS pursuant to an inventory of work orders system as is typical for existing loan processes. However, the supporting documents required for an EE program loan application would be different from what is needed to analyze and approve an application for a generation or transmission loan. Accordingly, the proposed subpart H details what is needed for RUS to approve an EE program and associated loans to execute the program. An EE program work plan (EEWP), separate from any work plans under existing loan programs, would be required to initiate a new program activity area for a given Primary Recipient, and EE investments would not be listed on the traditional construction work plan that applies to utility assets financed by RUS under other existing loan programs.

An eligible activity under subpart H must show that the payment terms and loan term offered to the Ultimate Recipient are appropriate to the expected life of the applicable assets. Additionally, RUS must evaluate activities to demonstrate that they would not weaken a rural electric utility's financial strength as a result of implementing an EE program activity financed under subpart H.

RUS anticipates that eligible loan purposes will include overhead and incidental costs such as administrative and marketing expenses incurred by Primary Recipients. Under subpart H, not more than five percent (5%) of the loan budget may be used for these purposes. RUS does not propose to cap the loan interest rate that the Primary Recipient can charge to consumers..

RUS recognizes that energy efficiency investments that reduce energy consumption at the Ultimate Recipient's premises may prompt a need for investments at the utility system level to sustain the reliability and stability of the grid. Business plans submitted by Primary Recipients for the EE program must identify any system investments related to the EE program activity, but system-level investments would be financed as part of a traditional loan application rather than through the EE program, and they would be reflected in the RUS borrower's construction work plan required under existing RUS loan programs rather than in the EEWP.

As with other loans made pursuant to 7 CFR Part 1710, Primary Recipient's must comply with environmental regulations when submitting their EEWP associated with the loan request. RUS would develop an environmental compliance tool kit that would include a fillable form incorporating by reference the environmental review in this PEA and providing guidance for activities which require supplementary information for an individual EEWP.

Loan Repayment

Primary Recipients would ultimately be responsible for repayment of all EE program loans to RUS. When funds collected from Ultimate Recipients or ratepayers, as appropriate, for an eligible activity exceed the current amortization requirements for the RUS loan, the Primary Recipient must redeploy those funds for EE program purposes or must use them to prepay the RUS EE program loan. Any prepayments would not change the timing or amount of regularly scheduled principal and interest debt service payments.

RUS may approve EE program activities for which the Primary Recipient would recoup all or part of the costs of its investment from specific ratepayers on whose behalf the investment was made. The Primary Recipient may recover costs of an eligible activity from the benefiting Ultimate Recipient through loan repayment or a dedicated tariff.

Ownership of Assets

For some RUS loans, the Primary Recipient may initially own the program investments that they design or propose to be installed on the Ultimate Recipients' properties, and they would later convey the resulting EE assets to the Ultimate Recipients after the assets have been paid for or after a certain period of time has elapsed. RUS proposes that these assets be deemed "Excepted Property" under RUS's mortgage with the Primary Recipient, to preclude the assets being captured from the Ultimate Recipient under the "after acquired" clause that is standard in the RUS mortgage terms codified in 7 CFR part 1718. Additionally, RUS would not require that a release of lien be executed for the Primary Recipient to convey to the Ultimate Recipient clear title to these assets.

2.3 The Environmentally Preferable Alternative

As stated in Section 101 of NEPA (42 USC §4331), “In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may --

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources”

The Proposed Action to add subpart H to 7 CFR part 1710 would implement an EE program that would enable Primary Recipients to offer financial assistance for energy efficiency and conservation measures to reduce energy needs at their customers' premises. Increasing load growth threatens the viability, reliability, and sustainability of many electric utility systems. By offering consumers options to make energy grids more sustainable, the Proposed Action has the potential to assist in fulfilling this generation's responsibilities as trustees of the environment for succeeding generations.

The EE program will provide incentives for Primary Recipients and consumers to invest in upgraded, new, and emerging technologies that would attain the widest range of beneficial uses of the environment. The environmental evaluations required to implement EE program activities would ensure that these beneficial uses would not result in environmental degradation, risk of health or safety, or other undesirable and unintended consequences.

Growing populations create increasing energy consumption throughout the nation, making utility systems' load growth difficult to manage. EE program activities would offset load growth by reducing the amount of energy requirements at thousands of individual end-user premises. The EE program, therefore, is important to achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.

The EE program is intended to be flexible to allow for the use of new and emerging technologies, including renewable resources. Therefore, the EE program has the potential to contribute to enhancing the quality of renewable resources.

While the Proposed Action to amend RUS regulations to implement an EE program has the potential to meet as many as four of the criteria outlined in Section 101 of NEPA and promote environmental policy objectives, under the No-Action Alternative no new program would be implemented that would have the potential to promote environmental objectives. Therefore, the Proposed Action is the environmentally preferable alternative.

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL CONSEQUENCES

Overview of this Chapter

Environmental Assessments are public documents written for use by a general audience, agency officials, and technical experts. As stated in the CEQ regulations, EAs are intended to provide a concise and clear overview of the environmental impact analyses of actions relevant to the Proposed Action. Therefore, discussions of significant issues summarize larger bodies of data used in the environmental evaluation, while other issues are discussed briefly to present information on why they will not have a significant impact on the human environment.

The following presents an overview of resources considered in the PEA impact analyses, most of which were considered but ultimately dismissed from detailed evaluation. Resources discussed generally represent resources or values that require protection under laws and regulations, under agency policies, or as a resource important to fulfilling the RUS mission. Impact topics were dismissed from further evaluation if it was determined that the Proposed Action does not have the potential to cause significant measurable change to these resources and values.

The regulatory context and baseline conditions (affected environment) relevant to each resource are evaluated. Because this environmental analysis is programmatic and covers a broad-scale review of a proposed new agency program, in accordance with 40 CFR §§ 1500.4, 1502.4 and 1502.20), environmental impact analysis for each topic focuses on categories of activities that may have similar impacts, and it provides general guidelines as a basis for tiered environmental documents that will be developed for each Primary Recipient's EEWP using the EE program Environmental Compliance Toolkit. Because RUS cannot know all EE activities for which Primary Recipients may seek RUS, which may include future technologies, the EE Environmental Compliance Toolkit will be updated regularly to include specific activities the new agency program is asked to consider without changes to this PEA unless an activity is proposed that does not fall into the broad categories analyzed in the environmental consequences analysis in this document. RUS reserves the right to supplement this PEA to respond to new EE technologies outside the scope of the impact analysis herein, if a regulatory change compels RUS to re-evaluate the regulatory and impact analysis of an environmental topic, or if RUS finds that to do so would meet the intent of NEPA, further the agency mission, or be in the public interest.

RUS's Environmental Tool Kit will serve as the mechanism by which RUS would conduct more detailed environmental analysis for EE activities proposed by Primary Recipients. The Environmental Tool Kit will be an interactive document that covers all of the topics in the environmental consequences sections of this PEA and guides the user to provide additional documentation where needed and incorporate analysis in the PEA where no additional analysis is needed. Primary Recipients will complete the Environmental Tool Kit process, resulting in a tiered environmental document that will be submitted to RUS with the Primary Recipient's EE work plan (EEWP). RUS environmental staff will review EE program environmental documents

generated through the Environmental Tool Kit to determine if further evaluation is needed. Primary Recipients, under RUS oversight, would perform a prescribed level of environmental review activities when they provide EE program assistance to Ultimate Recipients.

Cumulative Impacts

The CEQ regulations define cumulative impacts as follows:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

RUS considered cumulative impacts in the analysis of each environmental topic discussed throughout this chapter and found that all EE activities being considered are sufficiently small in scale that they would not have a measurably cumulative impact on any of the resource topics or values covered in the environmental impact analysis in this PEA.

Notes on NEPA Terms: The words “effect” and “impact” are synonymous in the Council on Environmental Quality (CEQ) regulations (40 CFR § 1508.8(b)), which implement the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.). In accordance with the CEQ regulations, NEPA documents must consider “beneficial” effects and impacts as well as “adverse” effects and impacts (see 40 CFR §§ 1508.8(b) and 1508.27(b)(1)). Conversely, the term “effect” has different meaning in the context of other environmental laws, such as the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA). Specific language relevant to the implementing regulations for these laws will be called out with quotation marks when applicable.

3.1 Land Use/Formally Designated Lands

3.1.1 Regulatory Context and Affected Environment

This section evaluates the EE program’s potential to impact land use with emphasis on lands designated for specific purposes under Federal, state, or local authorities. Other land use topics such as important farmland and Indian trust resources are covered in other sections of this chapter.

Federal, state, and local agencies formally designate and set aside lands for specific purposes, including but not limited to: National, state, county, and municipal parks; monuments; battlefields; historic sites; wilderness areas; wildlife refuges; national seashores and lake shores; forests; and grasslands. Other lands may be formally designated but are not specifically “set aside,” and their legal protections and jurisdictions vary. These include but are not limited to: National historic landmarks; wild, scenic, and recreational rivers; national natural landmarks; national heritage areas; and national trails.

Federal lands are set aside by an act of Congress or by a presidential proclamation and are under the jurisdiction of Federal land-managing agencies. Excluding military reserve lands set

aside for Department of Defense agencies, Federal lands make up 29% of the total U.S. land cover, mostly in the western U.S. (GAO 2011). Four agencies manage 95% of Federal lands – The Department of Interior (DOI) Bureau of Land Management, DOI Fish and Wildlife Service, DOI National Park Service, and USDA Forest Service (GAO 2011). Many of the lands managed by Federal agencies are in remote rural areas, and most have facilities such as visitor centers, administrative offices, and maintenance offices that require electric service. Although RUS does not anticipate that the EE program will provide financial assistance directly or indirectly to Federal agencies, facilities of non-profit support organizations and private land owners with holdings within the boundaries of designated Federal lands may be eligible to be Ultimate Recipients of EE program activities. Lands set aside by state and local agencies also have facilities requiring electricity, and these entities may be Ultimate Recipients under the EE program.

3.1.2 Environmental Consequences

RUS expects that environmental effects of implementing the EE program on Federal, state, and local lands would be the same as for those on other lands. For EE program activities subject to Federal land management laws, the Federal agency with jurisdiction over those lands may adopt all or part of the findings in this PEA or conduct additional analysis, as needed, to meet its environmental review obligations for the specific EE program activities that a given Primary Recipient proposes to implement within the boundaries of Federal lands. Likewise, state and local agencies would be responsible for applying their environmental review processes to activities proposed on lands within their jurisdiction.

3.1.3 Mitigation Measures

RUS would provide guidance to Primary Recipients as part of the Environmental Compliance Tool Kit informing them of their obligations to coordinate with Federal, state and local agencies for their approval of any activities that may occur on lands for which these agencies may have jurisdiction.

3.2 Important Farmland

3.2.1 Regulatory Context and Affected Environment

The Farmland Protection Policy Act of 1981, as amended (FPPA) and its implementing regulations (7 CFR part 658) along with USDA Departmental Regulation No. 900-3, “Land Use Policy,” provide protection for farmlands to minimize the extent to which Federal programs contribute to unnecessary and irreversible conversion of farmland to nonagricultural uses. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Land subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or land already committed to urban development or water storage.

As defined in 7 CFR part 658, conversion of farmland to nonagricultural uses does not include the construction of on-farm structures necessary for farm operations. Additionally, Federal assistance and actions related to the purchase, maintenance, renovation, or replacement of

existing structures and sites converted prior to the time of an application for assistance from a Federal agency, including assistance and actions related to the construction of minor new ancillary structures (such as garages and sheds) are not subject to the FPPA.

3.2.2 Environmental Consequences

The EE program will likely be implemented at some Ultimate Recipient premises that are within farmlands. EE program activities may modify existing structures and add new structures, such as renewable energy generation equipment. RUS finds that all proposed eligible EE program activities outlined in this PEA meet the criteria for exemptions as defined in 7 CFR § 658.3 because they would: 1) be necessary to support farm operations; OR 2) provide financing for purchase, maintenance, renovation, or replacement of existing structures or sites; OR 3) construct “minor new ancillary structures” consistent with the intent of this term as described in 7 CFR § 658.3. Therefore, no further evaluation of effects to farmland is required for the proposed eligible EE programs outlined in this PEA.

3.2.3 Mitigation Measures

No mitigation measures are necessary.

3.3 Indian Trust Resources

3.3.1 Regulatory Context and Affected Environment

Indian trust resources are assets held in trust by the United States for American Indians and Alaska Native Tribes. They include tribal lands as well as other resources, such as mineral rights, which are managed or co-managed with tribes by DOI agencies. The Federal Indian trust responsibility is a legally enforceable fiduciary obligation to protect tribal lands, assets, resources, and treaty rights. RUS’s existing borrowers include rural electric utilities that serve consumers on tribal lands who could be Ultimate Recipients of EE program loans.

3.3.2 Environmental Consequences

For EE program activities subject to Indian trust laws and tribal laws, the tribes and the responsible DOI agency, usually the Bureau of Indian Affairs, may adopt all or part of the findings in this PEA or conduct additional environmental evaluations, as needed, to meet their own environmental review obligations for the specific EEWP that a given Primary Recipient proposes to implement on tribal lands.

In accordance with Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments,” (E.O. 13175) and the Executive Memorandum of April 29, 1994, “Government-to-Government Relations with Native American Tribal Governments,” RUS consulted with tribal government representatives regarding promulgation subpart H of 7 CFR part 1710, and RUS determined that the proposed rule would not have a substantial direct effect on tribal governments. A detailed description of tribal consultations is located in Chapter 5 of this PEA.

3.3.3 Mitigation Measures

To ensure that RUS takes into consideration tribal concerns about EE program activities and to maintain the government-to-government relationship between RUS and tribal sovereign nations, RUS would provide guidance to Primary Recipients as part of the Environmental Compliance Tool Kit for implementing activities on Indian lands. If necessary, mitigation measures for effects to tribal trust resources will be developed and implemented on a case-by-case basis.

3.4 Floodplains

3.4.1 Regulatory Context and Affected Environment

Executive Order 11988, "Floodplain Management," requires Federal agencies to avoid actions, to the extent practical, that would result in the location of facilities in floodplains and/or affect floodplain values. Additionally, USDA Departmental Regulation No. 9500-3, "Land Use Policy," states that USDA agencies shall not assist in actions that would encroach upon flood plains, unless (1) there is a demonstrated, significant need for the project, program, or facility, and (2) there are no practicable alternative actions or sites that would avoid encroachment or, if encroachment is unavoidable, reduce the number of acres to be encroached upon directly and indirectly.

3.4.2 Environmental Consequences

It is possible that Ultimate Recipients of EE program assistance may have premises located in or near a floodplain. Any EE program activities in the footprint of existing structures, whether installed inside or outside the structure, would not cause new encroachment or alteration of floodplains, and therefore none of these activities would require further review of potential impacts on floodplains. EE program activities involving new construction of aboveground facilities outside the footprint of existing structures could have effects on floodplains if located within them, but because any new construction under the EE program is expected to be very small in scale effects would be negligible. The structures themselves however, if located within floodplains, would require flood insurance to protect these assets, if they are eligible for insurance. The environmental compliance tool kit would provide guidance on how to find floodplain maps and information on how to obtain flood insurance if it is found that a proposed activity is located at an Ultimate Recipient's premises that are located in a floodplain.

3.4.3 Mitigation Measures

No mitigation measures or further review of floodplain impacts is required if the EE activity is: 1) restricted to the footprint of existing structures, OR 2) not restricted to the footprint of existing structures, but a review of floodplain maps shows that the Ultimate Recipient's premises is not within a floodplain. In accordance with Rural Development Instruction 426.2 II.C, and under the authority of the National Flood Insurance Protection Act of 1968 as amended by the Flood Disaster Protection Act of 1973, RUS is prohibited from providing assistance to communities that do not participate in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency. Therefore, if a proposed EE activity does not meet either of the two exceptions listed above, and if a proposed structure cannot be placed outside a

floodplain and if the community is participating in the NFIP, the Ultimate Recipient must obtain flood insurance if the structure is insurable.

3.5 Wetlands

3.5.1 Regulatory Context and Affected Environment

The purpose of Executive Order 11990, "Protection of Wetlands," is to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The USDA Departmental Regulation 9500-3, "Land Use Policy," states that when land use regulations or decisions are inconsistent with USDA policies and procedures for the protection of wetlands, USDA agencies shall not assist in actions that would convert wetlands to other uses or encroach upon them, unless (1) there is a demonstrated, significant need for the project, program, or facility, and (2) there are no practicable alternative actions or sites that would avoid the conversion of these lands or, if conversion is unavoidable, reduce the number of acres to be converted or encroached upon directly and indirectly.

For regulatory purposes, the term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

3.5.2 Environmental Consequences

It is possible that Ultimate Recipient of EE program assistance may have premises located in or near wetlands. Any EE program activities restricted to the footprint of existing structures, whether installed inside or outside the structure, would not cause new encroachment or alteration of wetlands, and therefore none of these activities would require further review of potential impacts on wetlands. Newly constructed structures outside an existing developed footprint, however, could cause alteration to wetlands.

A key indicator of wetlands is the presence of hydric soils, which support wetland habitat. The Natural Resources Conservation Service (NRCS) has mapped soils throughout the U.S., and these maps are available to the public for identifying soil types in a given area. Because the projects are small in their footprint, RUS does not anticipate that any EE program activities would exceed limits established by the Army Corps of Engineers (USACE) under their Nationwide Permit (NWP) system. The current NWPs (USACE 2012) expected to be applicable to the EE program would be NWP 12, "Utility Line Activities," and NWP 51, "Renewable Energy Facilities." Both of these NWPs set a limit for alteration of wetlands at ½ acre, and NWP 12 has a "Pre-Construction Notification" (PCN) threshold of 1/10 acre, while NWP 51 requires a PCN for all activities. That is, a Primary or Ultimate Recipient would need to send a PCN to the District Engineer (DE) of USACE who has jurisdiction for their area if an activity that falls under NWP 12 is greater than 1/10 acres and for all activities, regardless of acreage, for activities that fall under NWP 51.

3.5.3 Mitigation Measures

No mitigation measures or further review of wetlands impacts is required if the EE activity is: 1) restricted to the footprint of the existing structures or area of previous disturbance, OR 2) not restricted to the footprint of existing structures or area of previous disturbance, but a review of NRCS soils maps shows that the Ultimate Recipient's premises is not within a hydric soil unit which is one of the three positive indicators of identifying wetlands (USACE Wetlands Delineation Manual, 1987).

EE program activities that involve new construction of facilities outside the footprint of existing structures or areas of previous disturbance would require a review of NRCS soil maps, and the Environmental Compliance Tool Kit would provide guidance on using NRCS soils data and on interpreting U.S. Army Corps of Engineers (USACE) requirements for wetlands. The tool kit will also provide guidance on whether an existing Nationwide Permit may apply to the action, or if hydric soils are present at a proposed project site and cannot be avoided. If wetlands are potentially affected and if the proposed action is under the jurisdiction and is authorized under the general conditions of a USACE Nationwide Permit(s), the tool kit would also provide a template Preconstruction Notice for a Primary or Ultimate Recipient to prepare and send to the District Engineer, USACE who has jurisdiction over the proposed project area.

3.6 Coastal Barrier Resources

3.6.1 Regulatory Context and Affected Environment

The Coastal Barrier Resources Act of 1982 designated units of the Coastal Barrier Resources System (CBRS) and created restrictions on most new Federal expenditures and financial assistance in these units to prevent Federal actions that may encourage development on barrier islands. Federal agencies are prohibited from providing financial assistance for projects in CBRS units except for the following activities: the maintenance, replacement, reconstruction, or repair, but not expansion, of publicly operated roads, structures, or facilities that are essential links in a larger network or system.

3.6.2 Environmental Consequences

There is potential that EE program activities could be located at premises of the Ultimate Recipients within units of the CBRS.

3.6.3 Mitigation Measures

If a Primary Recipient has reason to believe that any of its Ultimate Recipients may have premises in a unit of the CBRS, they will coordinate with RUS to consult with the U.S. Fish and Wildlife System (USFWS). RUS must receive written approval from the USFWS before any proposed action within a unit of the CBRS can be taken.

3.7 Air Quality

3.7.1 Regulatory Context and Affected Environment

The Clean Air Act (CAA) of 1963 (42 U.S.C. 7401 *et seq.*) was established to promote public health and welfare by protecting and enhancing the nation's air quality. Under the 1990 CAA

Amendments, the U.S. EPA sets limits for quantities of certain airborne pollutants anywhere in the United States. These limits are referred to as the National Ambient Air Quality Standards (NAAQS). Six criterion air pollutants are monitored for compliance with NAAQS: Carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), fine particulate matter (PM₁₀ and PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb). New developments or operations that have the potential to be “major point sources” of air pollutants must apply for operating permits under the Federal Title V operating permit program. Areas where pollutant levels are above the NAAQS limits, and therefore are not in compliance with the NAAQS, are termed “non-attainment areas.” In non-attainment areas, local ordinances and State policies may require stricter monitoring of even minor sources of air pollution.

3.7.2 Environmental Consequences

No the EE program activity proposed is expected to have measurable effects on air quality, and none would be subject to review under the CAA.

3.7.3 Mitigation Measures

No mitigation measures are necessary.

3.8 Species of Concern

3.8.1 Regulatory Context and Affected Environment

The Endangered Species Act of 1973 (ESA), as amended, requires examination of impacts on all federally listed threatened and endangered species. Section 7 of the ESA requires all Federal agencies to consult with the USFWS when an action authorized, funded, or carried out by the agency may affect a listed species or designated critical habitat, or is likely to jeopardize proposed species or adversely modify proposed critical habitat.

The Migratory Bird Treaty Act (MBTA) makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products. The MBTA also serves to protect environmental conditions for migratory birds from pollution or other ecosystem degradation.

3.8.2 Environmental Consequences

EE program activities that are confined to the interior of structures would have no potential to impact species of concern and require no review of special status species or other biological resources. With the exception of wind turbines, EE program activities located within the footprint of existing developed areas, including structures and hardened surfaces, such as driveways and sidewalks, would have “no effect” on species of concern. Wind turbines have been identified as having the potential to increase bird and bat mortality. Biologists continue to study, collect, and interpret data on causal relationships between wildlife mortality and wind turbines, and the data are not yet sufficient to determine the effects that small-scale wind turbines might have on special status species. Therefore, any activities that would include wind turbines would require case-by-case review of the potential for an incidental “take” under ESA or MBTA. Geothermal heat pump systems and other ground disturbing activities outside already

developed areas would require review on a case-by-case basis to determine if any plant species of concern are located in the area that may be impacted by ground disturbance. Case-by-case determinations will be made based on the document produced through the Environmental Compliance Toolkit process.

3.8.3 Mitigation Measures

To mitigate the potential for a “take” under ESA or MBTA, the RUS environmental compliance tool kit would provide guidance on identifying potential impacts to special status species that could result from EE program activities. The tool kit would provide instructions on how to find site-specific information for a given activity and how and when to consult with the USFWS.

3.9 Health and Safety

3.9.1 Regulatory Context and Affected Environment

In structures built before 1978, common renovation activities like sanding, cutting, and demolition can create hazardous lead dust and chips by disturbing lead-based paint, which can be harmful to adults and children. In 2008, EPA issued the Renovation, Repair and Painting Rule, creating subpart E to 40 CFR part 745, titled “Lead Poisoning Prevention in Certain Residential Structures.” It requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities, and schools be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. Lead-based paints can be found on the interiors and exteriors of older structures on surfaces such as walls, ceilings, doors, siding, trim and occasionally floors. Throughout the nation, contractors who specialize in renovation, repair, and demolition have been trained and certified to mitigate the release of lead-based paint as a result of these regulations.

Until the 1981, many types of building products contained asbestos including those found in attic and wall insulation, wrapping material for steam pipes, boilers, furnace ducts, and hot water heaters; resilient floor tiles and floor tile adhesives; cement products and door gaskets for insulation in wood burning stoves and oil and coal furnaces; soundproofing or decorative material sprayed on walls; patching and joint compounds, textured paints; roofing and siding shingles (EPA 2012). Under the authority of Section 112 of the CAA, EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP). The asbestos NESHAP (40 CFR part 61, subpart M) addresses milling, manufacturing and fabricating operations, demolition and renovation activities, waste disposal issues, active and inactive waste disposal sites and asbestos conversion processes. The provisions regulating demolition and renovation activities involving NESHAP regulated asbestos containing material (ACM) are most relevant to EE program activities, because some activities may require alteration of structures that contain ACM.

3.9.2 Environmental Consequences

Certain EE program activities in older homes could cause a release of lead. Such activities may include window replacement and weatherization that disturbs paint on trim and insulation work equipment installation that requires cutting into wall or ceiling surfaces to accommodate ducts. Lead poisoning and its associated adverse health effects, which include but are not limited to developmental and nervous system effects, can be caused by any form of ingestion, especially

inhalation (EPA 2011). However, EPA regulations have imposed requirements that have resulted in changes in standard practices in the home improvement industry and most contractors are certified to mitigate the release of lead during renovation projects. To comply with EPA regulations, RUS would require that any EE program activities on pre-1978 houses that could disturb lead surface would be conducted by a contractor holding the appropriate lead certification. Therefore, no adverse health effects from lead poisoning would be caused by implementing EE program activities.

Exposure to asbestos can lead to health problems including, but not limited to, lung cancer and mesothelioma. Exposure usually occurs as a result of disturbing ACMs. EE program activities that may disturb ACM, causing a release of a hazardous air pollutant, include but are not limited to any activities that disturb wall, ceiling, or roof structures, and such as replacing existing insulation and replacing heating equipment that may be insulated with ACM. The threat of exposure can be mitigated or eliminated through detection of the presence of asbestos and remediation prior to the start of program activities (as stated below).

3.9.3 Mitigation Measures

To mitigate the potential for exposure to lead paint, work that may disturb painted surfaces in pre-1978 structures would require lead testing prior to the beginning of work. Easy to use lead test kits are readily available online and at home improvement centers, and they take only minutes to receive results. If lead paint is found to be present after testing, all work that would disturb lead paint would be performed by a contractor with the appropriate lead certification.

Asbestos cannot be definitively identified in the field and requires testing at a certified laboratory. While some suspect ACM can be readily identified, such as vermiculite ceiling insulation, knowing where to take test samples of most suspect ACM requires inspection by a trained professional. To mitigate the potential for exposure to asbestos, in structures built before 1981, prior to implementation of any activities that could disturb surfaces that may contain asbestos, the Primary Recipient or Ultimate Recipient would arrange for the suspect ACM areas to be tested by a trained asbestos inspector. If asbestos is found and if there is potential for it to be disturbed by a given activity, the asbestos must either be avoided or must be removed by an asbestos remediation professional prior to the start of work on the project.

3.10 Historic Properties

3.10.1 Regulatory Context and Affected Environment

Section 106 of the National Historic Preservation Act (NHPA), as amended, (16 USC 470 *et seq.*), requires RUS to take into account the effects of its undertakings (that is, applications for which RUS will provide federal financial assistance) on buildings, structures, sites, objects and districts that are listed in or eligible for listing in the National Register of Historic Places (historic properties) and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment with regard to such undertaking. These requirements are implemented through federal regulations (36 CFR Part 800) that have been promulgated by the ACHP.

3.10.2 Environmental Consequences

Sites, buildings, structures, objects and districts that meet one of four criteria established by 36 CFR § 60.4 are eligible for inclusion in the National Register of Historic Places (NRHP). In accordance with 36 CFR § 800.16(i), an “effect” is defined as an alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP. While some activities supported by federal financial assistance through the EE program may have the potential to cause effects to historic properties, RUS believes that most will not likely cause adverse effects.

3.10.3 Mitigation Measures

To meet its responsibilities under Section 106 of the NHPA and its implementing regulation (36 CFR Part 800) for the EE program and its activities, RUS is pursuing the development of a program alternative in accordance with 36 CFR § 800.14. In August 2012, RUS invited the ACHP, State Historic Preservation Officers (SHPO), Indian tribes, and selected industry and tribal organizations to participate in consultation to develop this program alternative. With the invitation, RUS included a Conceptual Outline which described the EE Program and the challenges it presents for Section 106 review, and proposed that a nationwide Programmatic Agreement (PA) developed pursuant to 36 CFR § 800.14(b) to be the program alternative appropriate for the EE Program. The objective of the program alternative is to streamline Section 106 review, focusing Federal, state and tribal resources where they are most needed. On August 23 and 24, 2012, RUS hosted a series of webinars for SHPOs and Indian tribes, respectively, to discuss and solicit their comments on the nationwide PA, as the appropriate program alternative, and topical areas it might address.

While explicit terms of a nationwide PA have not yet been drafted, RUS recognizes, as presented in the Conceptual Outline, that any proposed program alternative must establish programmatic exemptions or thresholds for EE program activities that have little or no potential to cause effects to historic properties and standard methods for the EE Program to treat defined categories of historic properties, activities, and effects.

As part of its environmental compliance tools, RUS will develop a specialized toolkit for Section 106 requirements that will be part of the loan commitment documentation which RUS provides to Primary Recipients. RUS will require Primary Recipients to evaluate each action taken with an Ultimate Recipient to ensure consistency with the terms of the executed program alternative.

Primary Recipients will be responsible for documenting activities that fall below the established threshold. RUS will review the Primary Recipient’s documentation of actions that fall below the threshold prior to providing reimbursement with federal funds.

Any EE Program activity for which exemptions and standard treatments are not applicable would be subject to Section 106 review under procedures established by the PA or other program alternative. Therefore, the program alternative must define a clear threshold for RUS involvement in Section 106 review.

Although few in number, the comments on the Conceptual Outline received thus far have been supportive of the development of a nationwide PA, the need for streamlining, especially given the large number of reviews expected to be generated by EE Program activities, and the approach reflected in the Conceptual Outline. Based on these comments, RUS is proceeding with development of the first draft of the nationwide PA. The program alternative will be executed prior to RUS issuing a finding of no significant impact (FONSI). Both the FONSI and documents related to the program alternative will be made available to the public on RUS's website at <http://www.rurdev.usda.gov/UWP-ea.htm>.

4.0 MITIGATION MEASURES

The following mitigation measures have been developed to minimize the degree and/or severity of adverse effects, and would be implemented during all activities associated with the proposed action, as needed:

4.1 Land Use/Formally Designated Lands

RUS would provide guidance to Primary Recipients as part of the Environmental Compliance Tool Kit informing them of their obligations to coordinate with Federal, state and local agencies for their approval of any activities that may occur on lands for which these agencies may have jurisdiction.

4.2 Indian Trust Resources

To ensure that RUS takes into consideration tribal concerns about EE program activities and to maintain the government-to-government relationship between RUS and tribal sovereign nations, RUS would provide guidance to Primary Recipients as part of the Environmental Compliance Tool Kit for implementing activities on Indian lands. If necessary, mitigation measures for effects to tribal trust resources will be developed and implemented on a case-by-case basis.

4.3 Floodplains

No mitigation measures or further review of floodplain impacts is required if the EE activity is: 1) restricted to the footprint of existing structures, OR 2) not restricted to the footprint of existing structures, but a review of floodplain maps shows that the Ultimate Recipient's premises is not within a floodplain. In accordance with Rural Development Instruction 426.2 II.C, and under the authority of the National Flood Insurance Protection Act of 1968 as amended by the Flood Disaster Protection Act of 1973, RUS is prohibited from providing assistance to communities that do not participate in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency. Therefore, if a proposed EE activity does not meet either of the two exceptions listed above, and if a proposed structure cannot be placed outside a floodplain and if the community is participating in the NFIP, the Ultimate Recipient must obtain flood insurance if the structure is insurable.

4.4 Wetlands

No mitigation measures or further review of wetlands impacts is required if the EE activity is: 1) restricted to the footprint of the existing structures or area of previous disturbance, OR 2) not restricted to the footprint of existing structures or area of previous disturbance, but a review of NRCS soils maps shows that the Ultimate Recipient's premises is not within a hydric soil unit

which is one of the three positive indicators of identifying wetlands (USACE Wetlands Delineation Manual, 1987).

EE program activities that involve new construction of facilities outside the footprint of existing structures or areas of previous disturbance would require a review of NRCS soil maps, and the Environmental Compliance Tool Kit would provide guidance on using NRCS soils data and on interpreting U.S. Army Corps of Engineers (USACE) requirements for wetlands. The tool kit will also provide guidance on whether an existing Nationwide Permit may apply to the action, or if hydric soils are present at a proposed project site and cannot be avoided. If wetlands are potentially affected and if the proposed action is under the jurisdiction and is authorized under the general conditions of a USACE Nationwide Permit(s), the tool kit would also provide a template Preconstruction Notice for a Primary or Ultimate Recipient to prepare and send to the District Engineer, USACE who has jurisdiction over the proposed project area.

4.5 Coastal Barrier Resources

If a Primary Recipient has reason to believe that any of its Ultimate Recipients may have premises in a unit of the CBRS, they will coordinate with RUS to consult with the U.S. Fish and Wildlife System (USFWS). RUS must receive written approval from the USFWS before any proposed action within a unit of the CBRS can be taken.

4.6 Species of Concern

To mitigate the potential for a “take” under ESA or MBTA, the RUS environmental compliance tool kit would provide guidance on identifying potential impacts to special status species that could result from EE program activities. The tool kit would provide instructions on how to find site-specific information for a given activity and how and when to consult with the USFWS.

4.7 Health and Safety

To mitigate the potential for exposure to lead paint, work that may disturb painted surfaces in pre-1978 structures would require lead testing prior to the beginning of work. Easy to use lead test kits are readily available online and at home improvement centers, and they take only minutes to receive results. If lead paint is found to be present after testing, all work that would disturb lead paint would be performed by a contractor with the appropriate lead certification.

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potential for it to be disturbed by a given activity, the asbestos must either be avoided or must be removed by an asbestos remediation professional prior to the start of work on the project.

4.8 Historic Properties

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executed prior to RUS issuing a finding of no significant impact (FONSI). Both the FONSI and documents related to the program alternative will be made available to the public on RUS's website at <http://www.rurdev.usda.gov/UWP-ea.htm>.

5.0 CONSULTATION AND COORDINATION

5.1 Inter-Agency Coordination

The RE Act, Section 16 states: “the Secretary in making or guaranteeing loans for the construction, operations, or enlargement of generating plants or electric transmission lines or systems shall consider such general criteria consistent with the provisions of this Act as may be published by the Secretary of Energy.” As with any program covered under 7 CFR part 1710, subpart H would require that RUS work with the Department of Energy to meet this requirement under the RE Act.

5.2 Tribal Consultation

Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments,” requires Federal agencies to consult with tribal governments when their proposed regulations may have tribal implications. Between October 2010 and January 2011, the USDA hosted seven regional tribal consultation sessions to gain input from elected tribal officials or their designees concerning the impact of the proposed rule on tribal governments, communities, and individuals. These sessions established a baseline of consultation for future actions, should any be necessary, regarding the proposed rule. As a result of the input received during these sessions, RUS has determined that the proposed rule does not have a substantial direct effect on one or more Indian tribe(s) or on either the relationship or the distribution of powers and responsibilities between the Federal Government and Indian tribes.

5.3 List of Preparers and Contributors

5.3.1 Preparers (developed and edited PEA content):

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