



United States Department of Agriculture

# **Application Guide High Energy Cost Energy Grant Program**

## **Rural Utilities Service Electric Programs**

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## OVERVIEW

The High Energy Cost Grant Program and Bulk Fuel Grant Program were created by Congress in November 2000 under the Rural Electrification Act of 1936 (7 U.S.C. 918a). The High Energy Cost Grant Program provides financial assistance for the improvement of energy generation, transmission, and distribution facilities serving rural communities with home energy costs that are over 275 percent of the national average. The Program is administered through the Electric Program of the Rural Utilities Service (RUS), an agency of USDA Rural Development.

USDA published a Notice of Funding Availability (NOSA) in the Federal Register on October 12, 2017, requesting applications under the High Energy Cost Grant Program. The NOSA sets out the eligibility and application requirements for these competitive grants. This Application Guide is intended to be used along with the NOSA. RUS is making available a total of up to \$10 million in Fiscal Year 2017 for competitive grants for the High Energy Cost Grant Program under this NOSA. The number of grants awarded will depend on the number of applications submitted, the amount of grant funds requested, the quality and competitiveness of applications submitted, and the availability of appropriated funds. For High Energy Cost Grant the maximum amount for a grant request that will be considered for funding under this notice is \$3,000,000. The minimum amount for a grant application is \$100,000.

### Eligibility for the High Energy Cost Grant Program

To be eligible to receive a grant under this program:

- You must be an eligible applicant as defined in the next section;
- The grant project must serve an eligible community that meets the criteria of having extremely high energy costs (high energy cost benchmarks are presented below);
- The proposed project must improve energy generation, transmission, or distribution facilities serving an eligible community; and
- The administrative costs of the project must not exceed 4 percent of grant funds.

### Who is an Eligible Applicant?

You are eligible to apply you are any of the following:

- a legally-organized for-profit or nonprofit organization such as, but not limited to, a corporation, association, partnership (including a limited liability partnership), cooperative, or trust;

- a sole proprietorship;
- a State or local government, or any agency or instrumentality of a State or local government, including a municipal utility or public power authority;
- an Indian tribe, a tribally-owned entity, or an Alaska Native Corporation;
- an individual or group of individuals, or
- any of the above entities located in a U.S. Territory or other area authorized by law to participate in programs of the Rural Utilities Service or the Rural Electrification Act of 1936.

### Is my Community Eligible?

Your community qualifies as an eligible extremely high energy cost community if average home energy costs in the area to be served are at least 275 percent of the national average under one or more the high energy cost benchmarks shown below. Eligibility may be established using average annual household expenditures for individual fuels or for total energy, or average per unit cost for home energy.

<b>Fuel</b>	<b>Average annual household expenditures benchmark</b>	<b>Average per unit cost benchmark</b>
Electricity	\$3,904	\$0.345 per kilowatt-hour
Natural gas	\$1,828	\$27.69 per thousand cubic feet
Fuel oil	\$2,903	\$6.25 per gallon
LPG/Propane	\$3,110	\$5.64 per gallon
Total household energy	\$5,546	\$61.87 per million BTUs

### What Kinds of Energy Projects Are Eligible?

Grants under this program may be used for the acquisition, construction, installation, repair, replacement, or improvement of energy generation, transmission, or distribution facilities in communities with extremely high energy costs. On-grid and off-grid renewable energy systems, and energy efficiency, and energy conservation projects are eligible.

### How to Apply

You must submit a grant application package prepared according to the directions contained in the NOSA to apply for a grant under these programs. The completed grant application consists of your narrative grant proposal with supporting documentation and all required forms and certifications. You must submit a complete application package

consisting of three sets: one complete application marked “Original” with original signatures signed in ink on all forms and certifications and two complete copies marked “Copy 1” and “Copy 2”. All required forms listed in Appendix B of this Application Guide must be included. Grant applications may be submitted on paper directly to the Electric Programs at the address shown below or electronically through [Grants.gov](http://www.grants.gov) (<http://www.grants.gov>).

Deadline: December 11, 2017 at midnight Eastern Standard Time (EST).

**IMPORTANT:** The Deadline for applications is 60 days after publication of the NOSA in the Federal Register.

Paper application packages must be postmarked and mailed through the United States Postal Service or shipped through an overnight commercial delivery service by the application deadline of December 11, 2017, or hand delivered to the Electric Programs headquarters in Washington, DC by 4:00 pm EST, December 11, 2017. The Agency will accept all applications postmarked or delivered to us by this deadline. Late applications will not be considered.

Electronic Applications must be submitted to [Grants.gov](http://www.grants.gov) according to the instructions on that website on or before midnight (DST) December 11, 2014. Late or incomplete electronic applications though Grants.gov will not be accepted by USDA.

#### Registration Requirements All Applicants

Organizational entities that wish to submit either a paper or electronic application must provide a Data Universal Number System (DUNS) number on their SF 424 "Application for Federal Assistance". If you do not already have a DUNS number or wish to confirm an existing DUNS number you may do so online at <http://fedgov.dnb.com/webform> or by calling 1-866-705-5711 (US Only). Federal grant applicants may obtain a DUNS number free of charge. More information on obtaining a DUNS number is available in the Applicants section of Grants.gov.

Organizational Applicants and sole proprietorships are also required to register with the System for Award Management (SAM), formerly the Central Contractor Registry (CCR). Applicants may register for the SAM at <https://www.sam.gov/>. Completing the SAM registration process takes up to five business days, and applicants are strongly encouraged to begin the process well in advance of the application deadline specified in the NOSA.

Individuals wishing to submit a grant application, using Grants.gov, are required to complete this one time registration process. Neither a DUNS number nor registration with the System for Award Management (SAM, formerly CCR) is necessary for applicants who are individuals (other than sole proprietorships).

## Where to Submit Your Application

### Paper Applications

A completed application package with original signatures and two copies must be delivered by prepaid United States Mail, overnight delivery service, or by hand to the Electric Programs in Washington, DC at the following address:

Rural Utilities Service, Electric Programs  
United States Department of Agriculture  
1400 Independence Avenue, SW, STOP 1560  
Room 5165-South Building  
Washington, D.C. 20250-1560

Mark the outside of the Envelope: "Attention: High Energy Cost Community Grant Program."

Applicants are advised that regular mail deliveries to USDA, especially of oversized packages and envelopes, continue to be delayed because of increased security screening requirements for Federal buildings. Applicants are advised to consider using Express Mail or a commercial overnight delivery service instead of regular mail. Applicants wishing to hand deliver or use courier services for delivery directly to the Electric Programs headquarters should contact the Agency representative in advance to arrange for building access. USDA advises applicants that because of intensified security procedures at government facilities, any electronic media included in an application package may be damaged during security screening. If an applicant wishes to submit such materials, they should contact the Agency representative for additional information

### Electronic Submission of Applications

Applicants may complete and submit applications electronically through Grants.gov, the online Federal grants portal at <http://www.Grants.gov>. Applicants should be aware that before they can submit an application through Grants.gov, they must successfully complete several pre-registration steps with Grants.gov, including obtaining a DUNS number if needed, and registration with the System for Award Management before completing organization registration with Grants.gov. The Electric Programs will not accept applications directly online, by email or fax.

## Evaluation of Applications and Notification of Grant Awards

All timely and complete applications will be screened for eligibility and then reviewed and ranked by a rating panel composed of Agency employees according to the evaluation criteria set out in the NOSA. The Administrator will award grants based on rank order.

The Agency will notify you in writing whether you have been selected as a finalist for award. All applications must be complete; incomplete applications will not be considered under this NOSA. An actual award will only be effective on the Administrator's approval of the Grant Agreement.

## Application Guide

This Application Guide should be used with the NOSA published in the Federal Register to prepare your application. This guide provides additional information to help you determine whether your community is eligible under the program and how to complete your application package. The guide includes examples of eligible projects and suggested sources for obtaining the energy and population data that you will need to determine eligibility and support your application for the High Energy Cost Grant Program. All the required Federal forms and certifications are included in the Appendices.

**IMPORTANT:** If there are any differences between this guide and the requirements in the NOSA, the NOSA provisions will govern.

Copies of the NOSA and required forms are also accessible on the internet through [Grants.gov](http://Grants.gov), or the RUS Electric Programs website at <https://www.rd.usda.gov/programs-services/high-energy-cost-grants> or may be requested from the Agency Contact below.

### For More Information:

Electric Programs,  
Rural Utilities Service  
United States Department of Agriculture, STOP 1560  
1400 Independence Avenue, SW, Room 5165-S  
Washington, DC 20250-1560  
Telephone: 202-720-9545  
Fax: 202-690-0717  
Email: <mailto:energy.grants@wdc.usda.gov>

## DEFINITIONS

As used in this Guide and the Notice of Funding Availability:

**Agency** means the Rural Utilities Service (RUS) of the United States Department of Agriculture.

**Application Guide** means the Application Guide prepared by RUS for the high energy cost grant program or bulk fuel grant program containing detailed instructions for preparing grant applications, and copies of required forms, questionnaires, and model certifications.

**Area** means the geographic area to be served by the grant.

**Community** means the unit or units of local government in which the area is located.

**Extremely high energy costs** means community average residential energy costs that meet or exceed one or more home energy cost benchmarks established by the Administrator at 275 percent of the national average residential energy expenditures as reported by the Energy Information Administration (EIA) of the United States Department of Energy.

Fuel means coal, oil, gasoline, and other petroleum products, and any other material that can be burned to make energy.

**Home energy** means any energy source or fuel used by a household for purposes other than transportation, including electricity, natural gas, fuel oil, kerosene, liquefied petroleum gas (propane), other petroleum products, wood and other biomass fuels, coal, wind, and solar energy. Fuels used for subsistence activities in remote rural areas are also included.

**High energy cost benchmarks** means the criteria established by the Administrator for eligibility as an extremely high energy cost community. Home energy cost benchmarks are calculated for total annual household energy expenditures; total annual expenditures for individual fuels; annual average per unit energy costs for primary home energy sources and are set at 275 percent of the relevant national average household energy expenditures.

**Indian Tribe** means a Federally recognized Tribe as defined under section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b) to include “\* \* \* any Indian Tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act [43 U.S.C. 1601 et seq.], that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.”

**Person** means any natural person, firm, corporation, association, or other legal entity, and includes Indian Tribes and Tribal entities.

**Primary home energy source** means the energy source that is used for space heating or cooling, water heating, cooking, and lighting. A household or community may have more than one primary home energy source.

**RE Act** means the Rural Electrification Act of 1936

**State entity** means an agency, department, or instrumentality, or political subdivision of any of the several States of the United States or the District of Columbia, exclusive of local governments.

**State rural development initiative** means a rural economic development program funded by or carried out in cooperation with a State agency or Indian Tribe.

**Surface transportation** means transportation by road, rail, or pipeline.

**Tribal entity** means a legal entity that is owned, controlled, sanctioned, or chartered by the recognized governing body of an Indian Tribe.

## **DEVELOPING THE PROPOSAL**

### **Before you start**

Read the Notice of Funding Availability (NOSA) published in the Federal Register on October 12, 2017 and become familiar with its requirements. The NOSA is available on the internet at <http://www.grants.gov/> or on the RUS Electric Programs website at <https://www.rd.usda.gov/programs-services/high-energy-cost-grants>

This Application Guide MUST be used with the NOSA. If there are any differences in interpretation of this Application Guide and the NOSA, the NOSA takes precedence over information contained in this Application Guide. If there are any differences between the NOSA and USDA regulations, the regulations take precedence over the information contained in the NOSA and this guide. Program regulations are published in 7 CFR Part 1709. Your application will be rejected if it does not include the information, forms, and certifications required in the NOSA and if you do not include information to support your eligibility.

## **DETERMINING ELIGIBILITY**

### **Am I an Eligible Applicant for a High Energy Cost Grant?**

Eligibility for these grants is established by law and regulation. As provided in program regulations eligible applicants include “persons, States, political subdivisions of States, and other entities organized under the laws of States” (7 CFR §1709.3).

You are eligible to apply for a grant under this program if you are any of the following:

- a for-profit or nonprofit organization such as, but not limited to, a corporation, association, partnership (including a limited liability partnership), cooperative, trust or other entity organized under State law;
- a sole proprietorship;
- a State or local government, or any agency or instrumentality of a State or local government, including a municipal utility or public power authority;
- an Indian tribe, a tribally-owned entity, or an Alaska Native Corporation; or
- an individual or group of individuals.

Entities or persons located in U.S. Territories, possessions or other areas authorized to receive the services and programs of the Rural Utilities Service or the Rural Electrification Act of 1936, as amended, are also eligible under this program.

In addition, you, the Applicant, must demonstrate the legal authority and capacity to enter into a binding grant agreement with the Federal Government at the time of the award and to carry out the proposed grant funded project according to its terms to be an eligible applicant. Your application must include information and/or documentation supporting your eligibility, legal existence, and capacity to enter into a grant agreement

If you have any questions as to whether you may be an eligible applicant or what additional information you must submit to establish your capability to contract with the Federal Government, please contact the Agency.

Individuals are eligible grant applicants under this program. However, any proposed grant project must provide community benefits and not be for the sole benefit of you or your household. As a practical matter, because this program addresses community energy needs and to facilitate compliance with Federal grant requirements, individuals will likely find it preferable to establish an independent legal entity, such as a corporation to actually carry out the grant project if they are selected.

Individuals or other applicants who intend to form a new, separate legal entity to carry out the grant project should indicate their intent in their applications. The new entity must be in existence and legally competent to enter into a grant agreement with the Federal

Government under appropriate State and Federal laws before a final grant award can be made. It does not have to be in existence when you submit an application.

### **Is My Community Eligible for A High Energy Cost Grant?**

The grant project must benefit communities with extremely high energy costs. The RE Act defines an extremely high energy cost community as one in which “the average residential expenditure for home energy is at least 275 percent of the national average residential expenditure for home energy” as determined by the Energy Information Administration (EIA) using the most recent data available (7 U.S.C. 918a).

To qualify, average annual household expenditures for all energy must meet one or more of the High Energy Cost Benchmarks published in the NOSA and shown in Table 1.

To establish community eligibility:

- You must clearly define the geographic areas that will be included in the grant’s area, and
- You must demonstrate that each of the communities in the proposed area meets one or more of the high energy cost benchmarks.

### **Identifying the Area for the Grant**

You must identify and describe the areas and communities to be served by the proposal and include this information in the application. Box A herein includes Internet information resources that may be helpful in assembling information on your community and home energy costs.

The area may consist of all or part of one or more counties, cities, towns, villages or unincorporated areas. An area may include localities in more than one State. The smallest area that may be designated as an area is a 2010 Census block. Using Census blocks allows applicants and the Agency to locate the area easily and to determine its population.

Identify the area and all communities in the area by county, name of city, town, village or other incorporated unit of local government, and any Census Designated Places (CDPs) in unincorporated areas. We are requesting that applicants provide Census 2010 population figures for their proposed areas, including population of all cities, towns, villages, and CDPs in the area. If your proposed area includes rural unincorporated areas, consult the census maps at the U.S. Census Bureau website to determine if any part of the area includes any CDPs. For unincorporated areas that are outside of cities towns and CDPs, applicants may report population estimates based on total population of included census tracts/blocks or by reporting the county population outside of places.

For unincorporated areas that are not CDPs, provide a project name description that allows reviewers to identify the approximate location of the area. These areas may be identified by Census blocks or by zip code. You must include community identification and Census 2010 population information in your project description in the narrative proposal.

Appendix A contains a worksheet that may be helpful for collecting and presenting community information in table form.

Census Information Online. To obtain Census-related information from the Internet, go to the Census “United States Census 2010, It’s in our hands” at <http://2010.census.gov/2010census/>.

On the website, you can determine the boundaries of any CDPs and Census blocks in your area by going to the 2010 Census Interactive Population Map <http://2010.census.gov/2010census/popmap/>. Type in your area on the map and then click on the geographic level that you are seeking.

In addition to population figures, the 2010 Census data also can provide current information on household size, housing units, and major heating fuels in your local community that can serve as a credible source for estimated energy use or expenditures.

### **Determining Community Energy Costs**

After identifying the area, the next step is determining whether the area is eligible. Your area will qualify as an extremely high energy cost community if you establish that it has home energy costs that exceed 275% of the national average under one or more high energy cost benchmarks. The NOSA gives you several options for demonstrating eligibility based on local community energy characteristics.

The statutory definition of an extremely high energy cost community sets a very high threshold for eligibility. Based on available published information on residential energy costs, USDA anticipates that only those communities with the highest energy costs across the country will qualify under this standard.

The Agency has calculated high energy cost benchmarks based on national average home energy expenditures. The benchmarks are shown in Table 1. Communities must meet at least one of the benchmarks to qualify as an eligible beneficiary of a grant under this program. These benchmarks are calculated from EIA’s estimates of national average residential energy expenditures.

Your application must demonstrate that each community in the proposed area meets or exceeds one or more of these high energy cost benchmarks to be eligible for assistance under this program. You must investigate and provide credible, documented local energy cost information in your application to support your eligibility under this program. The

information resources in Box A may be useful in developing information on community energy costs for your application.

Appendix A includes a worksheet that may be helpful in collecting and presenting this community energy information in tabular form. Appendix A also includes several examples of eligible projects and community eligibility determinations.

NOTE: A community may include identifiable portions of larger utility service territories, or sub-units of local governments that are not otherwise eligible, as long as the area itself is characterized by extremely high energy costs

## Box A - Information Resources

### U.S. Census Bureau Population Information

[Census Bureau Home Page](#)

American FactFinder -- get population data, locate census blocks, and create Reference Maps, Thematic Maps, and Custom Tables containing Census 2010 Census Tract data:

<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

### EIA Residential Energy Information

EIA Residential Energy Information -

<http://www.eia.doe.gov/emeu/consumption/index.html>

EIA Residential Energy Consumption and Expenditure Surveys 2009 Data and Reports, Summary Statistics

<http://www.eia.gov/consumption/residential/data/2009/>

Electricity

Retail Sales and Average Revenues per Kilowatt-Hour by Sector, State, and Utility --

[http://www.eia.doe.gov/cneaf/electricity/esr/esr\\_sum.html](http://www.eia.doe.gov/cneaf/electricity/esr/esr_sum.html)

Natural Gas

Natural Gas Prices by Sector, Nationwide and by State:

U.S. Total Natural Gas Consumer Prices

[http://tonto.eia.doe.gov/dnav/ng/ng\\_pri\\_top.asp](http://tonto.eia.doe.gov/dnav/ng/ng_pri_top.asp)

Natural Gas Data

[http://www.eia.doe.gov/oil\\_gas/natural\\_gas/info\\_glance/natural\\_gas.html](http://www.eia.doe.gov/oil_gas/natural_gas/info_glance/natural_gas.html)

Fuel Oil

Annual Residential Heating Oil Prices by State

[http://tonto.eia.doe.gov/dnav/pet/pet\\_sum\\_mkt\\_dcu\\_nus\\_a.htm](http://tonto.eia.doe.gov/dnav/pet/pet_sum_mkt_dcu_nus_a.htm)

Propane

Propane Prices by Sales Type and State

[http://tonto.eia.doe.gov/dnav/pet/pet\\_sum\\_mkt\\_dcu\\_nus\\_a.htm](http://tonto.eia.doe.gov/dnav/pet/pet_sum_mkt_dcu_nus_a.htm)

United States Department of Agriculture

Rural Utilities Service, Electric Programs Homepage

<https://www.rd.usda.gov/programs-services/all-programs/electric-programs>

Rural Development Homepage

<http://www.rd.usda.gov>

Economic Research Service -- State and County Unemployment and Median Income

<https://www.ers.usda.gov/data-products/county-level-data-sets/>

Table 1 - Annual Average Per Unit Residential Energy Costs

<b>Fuel</b>	<b>Average annual household expenditure (national average)</b>	<b>Extremely high energy cost annual expenditure benchmark (275% of national average)</b>
Electricity	\$1,420 per year	\$3,904 per year
Natural Gas	\$665 per year	\$1,828 per year
Fuel Oil	\$1,056 per year	\$2,903 per year
LPG/Propane	\$1,131 per year	\$3,110 per year
<b>Total Household Energy Use</b>	<b>\$2, 017 per year</b>	<b>\$5,546 per year</b>

**Annual Average Per Unit Residential Energy Costs**

<b>Fuel</b>	<b>National Average</b>	<b>275% of national average per unit cost benchmark</b>
Electricity	\$0.126 per kWh	\$0.345 per kWh
Natural Gas	\$10.07 per thousand cubic feet	\$27.69 per thousand cubic feet
Fuel Oil	\$2.27 per gallon	\$6.25 per gallon
LPG/Propane	\$2.05 per gallon	\$5.64 per gallon
Total Household Energy cost per BTUs	\$22.50 per million BTUs	\$61.872 per million BTUs

Energy Information Administration, United States Department of Energy, *2009 Residential Energy Consumption Survey--Detailed Tables*, available at: <http://www.eia.gov/consumption/residential/data/2009/>

The RUS benchmarks calculations include adjustments to reflect the uncertainties inherent in EIA's statistical methodology for estimating home energy costs. The benchmarks are set based on the EIA's lower range estimates using the specified EIA methods.

## Demonstrating Eligibility Using Average Annual Household Expenditures

The annual expenditure benchmarks are set at 275 percent of the average yearly household cost for major commercial energy sources for the typical household in eligible extremely high energy cost communities. There are a variety of methods for establishing average community home energy costs. This section provides guidance in determining your community energy costs for eligibility purposes. In calculating annual home energy use, fuels used in subsistence activities in remote areas may be included, but other transportation fuel uses should be excluded.

Electricity. EIA estimates that the average annual household expenditure for electricity is \$1,420 at an average price of about \$0.126 per kWh. To qualify as an extremely high energy cost community under this benchmark, you must show that the community average annual residential electricity expenditure in your area exceeds the electricity expenditure benchmark of \$3,904 per household or an average price of \$0.345 per kilowatt hour.

For communities with commercial electric service, applicants may demonstrate eligibility using any one of three alternative approaches:

1. Actual average annual household expenditure data from the local electricity provider or regulatory authority; or
2. Average annual revenues per residential customer for the local electric utility as reported to or by the EIA, other government agencies, or commercial utility data sources; or
3. Estimated average annual household electricity expenditures based on available information on community housing characteristics, standardized residential energy consumption profiles, local energy cost data, and local climate conditions affecting energy use. (Applicants using this alternative should clearly explain the methodology and data sources used and why localized electric utility information is not available.)

Adjustments to historical community electricity costs are appropriate to account for variations in weather conditions, fuel prices, or unusual circumstances causing a substantial divergence of present or future residential electricity costs from historical patterns. If you are relying on adjusted data, be sure to include an explanation for why historical data has been adjusted and the methodology used.

**Special note for rural communities in Alaska that receive Power Cost Equalization (PCE) payments for residential customers:** The household annual expenditure for electricity should include the PCE credits to reflect the actual cost of providing electricity. EIA information on residential electric revenues for electric systems in Alaska includes PCE payments in the residential revenues. For example, a local electric system reported average residential revenues per kilowatt hour of \$0.45 cents which reflects a PCE payment for eligible loads of \$0.23 per kWh. Because of the PCE payment the actual average cost to

residential customers is reduced \$0.22 per kilowatt hour. For purposes of determining eligibility, applicants should use the actual cost to serve of \$0.45 cents per kWh, not the subsidized PCE rate.

Natural Gas. EIA estimates that the national average household expenditure for natural gas is \$665 at a cost of about \$10.07 per thousand cubic feet. To qualify as an extremely high energy cost community under this benchmark, you must show that the community average annual residential natural gas expenditure in your area exceeds the natural gas benchmark of \$1,828 per household or an average price of \$27.69 per thousand cubic feet.

Applicants may demonstrate eligibility using any one of three alternative approaches:

1. Actual average annual household expenditure data from the local natural gas distributor or regulatory authority; or
2. Average annual revenues per residential customer for the local natural gas utility as reported to or by the EIA, other government agencies, or commercial utility data sources; or
3. Estimated average annual household natural gas expenditures based on available information on community housing characteristics, standardized residential energy consumption profiles, local energy cost data, and local climate conditions affecting energy use. (Applicants using this alternative should clearly explain the methodology and data sources used and why localized natural gas utility information is not available.)

Adjustments to historical community household expenditures for natural gas are appropriate to account for variations in weather conditions, fuel prices, or unusual circumstances causing a substantial divergence of present or future residential energy costs from historical patterns. If you are relying on adjusted data, be sure to include an explanation for why historical data has been adjusted and the methodology used.

**Fuel Oil.** According to EIA, the average household expenditure for fuel oil is \$1,056 per year at approximately \$2.27 per gallon. To qualify as an extremely high energy cost community under this benchmark, you must show that the community average annual residential fuel oil expenditure in your area exceeds the benchmark of \$2,903 per household or an average price of \$6.25 per gallon.

Applicants may demonstrate eligibility using any one of three alternative approaches:

Actual average annual household expenditure data from a local fuel oil distributor; or

Average annual household fuel oil expenditures based on data reports or surveys from EIA, other government agencies, private agencies, or commercial data sources; or

Estimated average annual household fuel oil expenditures based on available information on community housing characteristics, standardized residential energy consumption profiles, local energy cost data, and local climate conditions affecting energy use. (Applicants using this alternative should clearly explain the methodology and data sources used and why localized fuel oil information is not available.)

Adjustments to historical community household expenditures for fuel oil are appropriate to account for variations in weather conditions, fuel prices, or unusual circumstances causing a substantial divergence of present or future residential energy costs from historical patterns. If you are relying on adjusted data, be sure to include an explanation for why historical data has been adjusted and the methodology used.

**Special Note for communities that use kerosene, gasoline, or diesel as major household energy fuels:** EIA does not report or calculate national average residential expenditures for kerosene, gasoline, or diesel as major household fuels and the Agency has not established benchmarks for those fuels. Applicants with communities that have substantial reliance on these fuels as household energy sources, may use the benchmark for fuel oil, or may include expenditures for these fuels in qualifying under total energy expenditures.

**Propane/LPG.** EIA estimates that the average annual residential expenditure on propane or liquefied petroleum gas (LPG) as a primary home energy source is \$1,131 per year at approximately \$2.05 per gallon. The extremely high energy cost benchmark for average annual expenditures for communities that use propane as a major home energy source is \$3,110 per household or an average price of \$5.64 per gallon.

Applicants may demonstrate eligibility using actual or estimated community average propane consumption and expenditures. Adjustments to actual prices for the effects of weather patterns or changes in propane prices are appropriate. Because there are few published sources for residential propane prices in rural areas, applicants must provide

adequate documentation for actual or estimated local propane prices and the methodology they used to estimate average household expenditures.

**Total Household Energy Use.** EIA has estimated the national average household energy expenditure for all non-transportation energy sources is \$2,017 per year at an average cost of \$22.50 per million BTU. To qualify as an extremely high energy cost community under this benchmark, average annual residential energy expenditure (for all non-transportation uses) must exceed \$5,546 per household or an average price of \$61.87 per million BTU.

A community that does not meet the benchmarks for individual home energy sources may nevertheless qualify based on total expenditures for all home energy use. For example, a community with an average annual household fuel oil cost of \$2,800 and an annual average household electricity cost of \$2,800 would not qualify as an extremely high energy cost community under the benchmarks for fuel oil or electricity. However, the community is eligible under the program because the combined average total household energy expenditure of \$5,600 exceeds the extremely high energy cost benchmark for average total annual household expenditures of \$5,546.

Applicants should refer to the discussion above for guidance on energy expenditure and consumption information sources for individual energy sources used to determine total household energy use and expenditures.

### **Demonstrating Eligibility Using Per Unit Energy Costs**

The per unit energy cost benchmarks reflect the average annual per unit cost for major commercial household energy sources in extremely high energy cost communities. To be eligible under this grant program, the average residential per unit cost for major commercial energy sources in the area or community must exceed at least one of the per unit energy cost benchmarks shown in Table 1. Applicants generally should use historical residential energy cost data where available. Estimates may be used if actual data is not available or does not adequately represent the costs of providing home energy services in the area.

**Electricity.** To be eligible under this benchmark, the average annual per unit cost of electricity must exceed \$0.345 per kWh. There are a variety of acceptable measures that can be used to establish that community costs meet the eligibility benchmark. Common measures include the local utility's standard residential per kWh rate or annual average revenues per kilowatt hour for residential customers. Sources of actual per unit costs include the local electric provider, Federal and State agencies, and commercial energy information services. Estimates may be used if actual information is not available, the area does not have on-grid electric service, or the historical price information is not an adequate reflection of the community home energy costs. The example projects in Appendix A provide examples where per unit electricity costs were estimated. As discussed for the

total expenditure benchmarks above, adjustments to historical data are appropriate to account for differences in weather, fuel prices, or other circumstances.

**Natural Gas.** The average annual per unit cost of natural gas must exceed \$27.69 per thousand cubic feet to be eligible under this benchmark. Acceptable sources for natural gas information and appropriate adjustments are the same as indicated in the above discussion of annual expenditures benchmarks.

**Fuel Oil.** The annual average per unit cost of residential fuel oil must exceed \$6.25 per gallon to be eligible under this benchmark. Acceptable sources for fuel oil information and appropriate adjustments are the same as indicated in the above discussion of annual expenditures benchmarks

**Propane/LPG.** The average annual per unit cost of propane or LPG as a primary home energy source must exceed \$5.64 per gallon to be eligible under this benchmark. Acceptable sources for propane/LPG information and appropriate adjustments are the same as indicated in the above discussion of annual expenditures benchmarks

**Total Household Energy.** Communities may also qualify if the total annual average residential energy cost exceeds the benchmark of \$61.87 per million BTU.<sup>1</sup> This figure is 275 percent of the national average. To derive this estimate, you should determine the annual consumption and expenditures for common home energy services including space heating, cooling, water heating, water pumping, refrigeration and food preservation, cooking, lighting, appliances, and laundry. In many instances home energy services may be delivered differently in remote rural areas and the costs may not be reflected in a typical residential bill.

Where community energy consumption or energy cost data is incomplete or lacking, the applicant may substitute estimates based on engineering standards and available community, regional, or local data on energy expenditures, consumption, housing characteristics and population.

Per BTU expenditures are calculated by adding together total expenditures for all energy sources and dividing by average total home energy use on a BTU basis. Applicants should use the conversion factors in Box B to estimate home energy usage in BTUs in making these calculations.

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<sup>1</sup> NOTE: BTU is the abbreviation for British Thermal Unit, a standard energy measure. A BTU is the quantity of heat needed to raise the temperature of one pound of water 1 degree Fahrenheit at or near 39.2 degrees Fahrenheit. In estimating average household per unit energy cost on a BTU basis, different home energy sources are converted to a standard BTU basis.

## Box B

### Converting Energy Fuel Units to British Thermal Units (BTUs)

In estimating total average household per unit energy costs, it is necessary to convert common home energy sources to a standard BTU basis.

A BTU (British Thermal Unit): is defined as the amount of energy required to increase the temperature of 1 pound of water by 1 degree Fahrenheit, at normal atmospheric pressure. By expressing energy consumption in BTU, different energy sources can be compared and aggregated in common units.

Applicants should use the following EIA BTU conversion factors for residential energy use:

<b>Energy Source</b>	<b>BTU Equivalent</b>	<b>Unit</b>
Electricity (delivered/on site)	3,412	kilowatt-hour
Natural gas	1,027	cubic foot
Fuel Oil No.1	135,000	gallon
Kerosene	135,000	gallon
Fuel Oil No.2	138,690	gallon
LPG (propane)	91,330	gallon
Wood	20,000,000	cord

### Supporting Energy Cost Data

Your application must include information that demonstrates eligibility under the high energy cost benchmarks for your area. You must supply documentation or references for actual or estimated home energy expenditures or per unit energy costs that you are relying on to meet the eligibility benchmarks.

Historical residential energy cost or expenditure information from the local commercial energy providers are the preferred sources of information. However, in some cases, local commercial energy provider data may be unavailable or may not present an adequate measure of energy costs in the area. Other potential sources of home energy related information include Federal and State agencies, local community energy providers such as electric and natural gas utilities and fuel dealers, and commercial publications. Estimates are appropriate if these sources are not adequate as discussed below.

Use of estimated home energy costs. Where community data are incomplete or lacking or where community-wide data do not accurately reflect the costs of providing home energy

services, you may substitute estimates based on available community energy data and engineering standards. The estimates should use available community, local, or regional data on energy expenditures, consumption, housing characteristics and population. Estimates are appropriate where, for example, the area is without electric service. For example, engineering cost estimates reflecting the incremental costs of extending service could be used to establish eligibility for areas without grid-connected electric service.

Information to support high energy cost is subject to independent review by the Agency. Applications that contain information that is not reasonably based on credible sources of information or sound estimates will be rejected. Where appropriate, the Agency may consult standard sources to confirm the reasonableness of information and estimates provided by applicants in determining eligibility, technical feasibility, and adequacy of proposed budget estimates.

Why alternative measures are appropriate. We concluded following our review of the EIA RECS data and the LIHEAP program information that eligibility criteria should provide several alternative measures of extremely high energy costs to accommodate the lack of a standardized national data base of local community energy consumption and price.

Reliance on total annual household energy expenditure alone does not provide an adequate measure of residential high energy costs in many rural communities. Total energy expenditures reflect the amounts and type of energy used, per unit costs of energy. These measures are in turn influenced by the size and condition of the housing units, family size and income, appliance use, climate, and annual weather variations. For example, on average lower income families tend to spend less on energy on a per household basis than upper income families because they tend to live in smaller homes with fewer energy consuming appliances, and have less disposable income. However, lower income families spend a much higher portion of their total family income on energy than upper income families. On average, families that live in regions with both high heating and high cooling demand tend to have higher energy bills than those in more moderate climate zones.

Reliance on historical commercial household energy expenditures or per unit energy costs alone in determining eligibility could ignore one of the most adverse impacts of extremely high energy costs in rural communities. Rural consumers, particularly those with low or modest incomes, may limit or do without commercial energy sources either because of the extremely high cost or its limited availability. Examples include homes without on-grid or any electric service; homes dependent on firewood for heating and homes left unheated or uncooled because of the expense or lack of service.

Use of average “out-of-pocket” household energy cost data may also yield a misleading picture of extremely high energy costs in some rural areas where some or all of home energy expenditures are not paid directly by the residential consumers. These include communities where some or all residential energy costs are paid by the landlord or housing

service, or through heating or energy assistance payments, or by welfare or other community programs. For example, some Native American communities have a single electric meter, and service to all connected homes is paid for by the tribe directly to the electric utility. In some extremely high energy cost communities in Alaska, as a further example, critical household energy services such as bathing, laundry, and food storage are provided and paid for through shared community facilities rather than by individual households. In these localities, household commercial energy expenditures would not capture the costs of all home energy uses. In such cases, it would be appropriate for applicants to estimate the equivalent localized costs of providing home energy services comparable to national or regional usage standards using available local data.

### **Is My Project Eligible for A High Energy Cost Grant?**

Grants under this program may be used for the acquisition, construction, installation, repair, replacement, or improvement of energy generation, transmission, and distribution facilities in communities with extremely high energy costs.

Examples of eligible activities include:

- Acquisition, construction, replacement, repair, or improvement of:
  - Electric generation, transmission, and distribution facilities, equipment, and materials, including associated and supporting activities; land or right of way acquisition, engineering and professional expenses, permitting costs;
  - Natural gas distribution or storage facilities and associated equipment and activities serving residential customers or community use;
  - Petroleum product storage and handling facilities serving residential or community use; Renewable energy facilities used for on-grid or off-grid electric power generation, water or space heating, or process heating and power (renewable energy sources include solar, wind, hydropower, or biomass technologies); or
  - Backup up or emergency power generation or energy storage equipment, included distributed generation installed on consumer premises.
- Implementation of energy efficiency, energy conservation measures such as weatherization of residences and community facilities, energy-efficient or energy saving appliances and devices as part of a coordinated demand management or energy conservation program.

The above examples are illustrative and are not meant to limit the projects that you may propose in your application. An activity that meets the objectives of providing or improving energy service or reducing the costs of energy services to eligible communities is an acceptable grant purpose.

### **Ineligible Grant Purposes**

Certain activities and expenses cannot be financed out of grant funds. You may not use grant funds for: preparation of the grant application, payment of utility bills, fuel purchases, routine maintenance or other routine operating costs, or purchase of equipment, structures, or real estate not directly associated with provision of community energy services. In general, grant funds may not be used to support projects that primarily benefit areas outside of eligible communities. However, grant funds may be used to finance an eligible community's proportionate share of a larger energy project. Grant-funded projects must provide community benefits and not for the primary benefit of a single household or business.<sup>2</sup>

This grant program is not intended to support research, development or demonstration projects. You must be able to demonstrate that a proposed project is both economically and technically feasible as a condition of selection. However, use of grant funds will be considered for projects that involve the innovative use or adaptation of commercially proven energy-related technologies to improve energy service in extremely high cost communities.

### **Other Limitations on Use of Grant Funds**

Section 19 requires that the planning and administrative expenses of the grantee not directly related to the grant project cannot exceed 4 percent of project costs. The Agency will not approve use of grant funds for expenses that exceed this limit.

**For More Information See Appendix A for examples of eligible projects and different approaches to demonstrating community energy costs for the High Energy Cost Grant Program.**

### **READY TO PROCEED?**

**If you believe that you are an eligible applicant, your community is an eligible extremely high energy cost community, and your proposed project is eligible,**

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<sup>2</sup> There are other USDA Rural Development Programs that can assist farms, ranches, rural small businesses and rural households and community facilities. For more information on these programs, please see <http://www.rd.usda.gov> or consult your local USDA Rural Development State Office.

**feasible, and benefits your community, you are ready to prepare your project proposal and application package.**

## **PREPARING THE APPLICATION PACKAGE**

The NOSA describes what your application package must include. Refer to and follow the NOSA section on “What to Include in the Application” in preparing your application. For your convenience, The Application Checklist below shows the required contents of the application package in the order specified in the NOSA. Copies of all forms and certifications may be found in Appendix B, [Grants.gov](https://www.grants.gov), and on the RUS Electric Programs website <https://www.rd.usda.gov/programs-services/all-programs/electric-programs>.

## Application Checklist for the High Energy Cost Grant Program

The paper application package must contain an original signed application and two complete copies. The application contents must also contain the following parts assembled in order and paginated sequentially or by section:

- Part A. SF 424 “Application for Federal Assistance”**
- Part B. Project Summary and Eligibility Statement (3 pages maximum)**
  - Project Abstract and Eligibility
  - Applicant Eligibility
  - Community Eligibility
- Part C. Project Narrative Proposal**
  - I. Table of Contents
  - II. Executive Summary (1 Page)
  - III. Project Description (up to 30 pages)
    - A. Community Eligibility and Assessment of Community Needs
    - B. Project Design, Technical Feasibility and Responsiveness to Community Needs
    - C. Applicant Organization and Eligibility
    - D. Organizational Capabilities and Project Management Plan
    - E. Organizational Expertise
    - F. Key Staff Experience
    - G. Project Goals, Objectives and Performance Measures
    - H. Project Reporting Plan
    - I. Project Budget and Financial Capability
    - Either Form SF-424A, "Budget Information-Non-Construction Programs or Form SF-424C "Budget Information-Construction Programs"
    - J. Rural Economic Development Initiatives
    - K. Priority Considerations
- Part D. Additional Required Forms and Certifications**
  - Form SF-424B, "Assurances-Non-Construction Programs" or Form SF-424D, "Assurances-Construction Programs."
  - Form SF-LLL, "Disclosure of Lobbying Activities"
  - Evidence of active and unexpired SAM registration with <https://www.sam.gov>
  - USDA Form AD 1047 "Certification Regarding Debarment, Suspension and Other Responsibility Matters-Primary Covered Transactions"
  - USDA Form AD 3031 "Representations Regarding Felony Conviction and Tax Delinquent Status" for Corporate Applicants
  - Rural Utilities Service Form 266 "Assurance Agreement" relating to Civil Rights
  - Rural Development Form RD 400-1 relating to prescribed equal opportunity clause in construction contracts where Federal financial assistance exceeds \$10,000
  - RUS Environmental Questionnaire
- Part E. Supplementary Material (up to 10 pages)**

## **HOW WILL MY APPLICATION BE EVALUATED?**

Your application will be reviewed by a rating panel selected by the Assistant Administrator, Electric Programs. The rating panel will award points to each application based on the evaluation criteria set out in the NOSA. Read the section of the NOSA on selection criteria carefully as well as this section of the Guide.

Careful attention to the project evaluation criteria in the NOSA is a critical part of preparing your proposal. The ratings panel will review all complete applications according to the evaluation criteria set forth in the NOSA. The rankings and recommendations of the panel will be forwarded to the Administrator for final review and selection.

### **Evaluation Criteria and Weights**

The maximum number of points that can be awarded to a proposal under the selection criteria established in the NOSA is 100 points. Table 2 shows the maximum points available under each the evaluation criterion for the High Energy Cost Grant Program.

The Agency will use the selection criteria described below to evaluate and rate applications and will award points up to the maximum number indicated under each criterion. All applications must be on single sided pages with 1 inch margins, formatted using one of the following font options: Times New Roman 12, Calibri 11, Arial 11, Verdana 10 or Courier 10. Narratives may be single or double spaced and all pages must be numbered. Only numbered pages will be reviewed. All applications are limited to the page limits specified in this NOSA for each section. Additional pages will not be reviewed.

#### **Project Summary and Eligibility Statement**

The project summary and eligibility narrative will be used to screen projects as preliminary matter and not be scored; it will be used for a preliminary determination of whether the project is eligible for funding and whether it is to be submitted to the review panel. The grant eligibility section can be no longer than three pages and must include the following information:

**Project Abstract and Eligibility.** This section must provide a summary of the proposed project. It must be described in sufficient detail to establish that it is an eligible project. There are no scores associated with these sections, only the identification that the project is or is not eligible.

**Applicant Eligibility.** This section is a narrative statement that identifies the applicant and supporting evidence establishing that the applicant has or will have the legal authority to enter into a financial assistance relationship with the Federal Government.

Community Eligibility. This section provides a narrative description of the community or communities to be served by the grant and supporting information to establish eligibility. The narrative must show that the proposed grant project's area or areas are located in one or more communities where the average residential energy costs exceed one or more of the benchmark criteria for extremely high energy costs as described in this NOSA. The narrative should clearly identify the location and population of the areas to be aided by the grant project and their energy costs and the population of the local government division in which they are located. Local energy providers and sources of high energy cost data and estimates should be clearly identified. Neither the applicant nor the project are required to be physically located in the extremely high energy cost community, but the funded project must serve an eligible community. The population estimates should be based on the results of the 2010 Census available from the U.S. Census Bureau. Additional information and exhibits supporting eligibility may include maps, summary tables, and references to statistical information from the U.S. Census, the Energy Information Administration, other Federal and State agencies, or private sources.

#### Scoring Criteria for the High Energy Cost Grant Program

Once an applicant has been deemed eligible, the application will be referred to a panel that will score the projects using the following 100 point criteria.

Table 2 - Evaluation Criteria

<b>Criteria</b>	<b>Maximum Points</b>
Project Design and Technical Merit (up to 65 points)	
Assessment of Community Needs	15
Project Design, Technical Feasibility and Responsiveness to Community Needs	10
Project Goals and Objectives and Project Performance Measures	3
Project Management	22
Management Plan and Schedule	10
Organizational Experience	5
Key Staff Experience	5
Project Reporting Plan	2
Regulatory and other Approvals	0
Project Budget	10
Rural Development Initiatives	5
Priority Considerations (up to 35 points)	
High Poverty Area Priority	10
Rurality (Population)	10
Waste Heat Recovery or Energy Efficiency	5
Extraordinary circumstances or conditions	5
SUTA applications	5
Maximum Possible Score	100

**A. Project Design and Technical Merit (up to 65 points)**

Reviewers will consider the soundness of the applicant's analysis of community needs and benefits, the adequacy of the proposed project plan, the technical feasibility of the project, the adequacy of financial and other resources, the competence and experience of the applicant and its team, project goals and objectives, and the proposed performance measures. RUS may also consider its past experience with the applicant or identified key staff in assessing the risk associated with performance under a project grant agreement. A total of 65 points may be awarded under the following criteria:

**B. Assessment of Community Needs (Up to 15 points)**

Under this criterion, reviewers will consider the applicant's assessment of community needs and how the severity of identified needs compares to other applications. To the maximum extent possible grant funds will be directed to the smallest communities with the lowest incomes emphasizing areas where according to the American Community Survey data by census tracts show that at least 20 percent of the population is living in poverty.

This emphasis supports Rural Development's goal of providing 20 percent of its funding to these areas of need. Information on the severity of physical and economic challenges affecting eligible communities will be considered. In assessing the applicant's demonstration of community needs, the reviewers will consider information in the narrative proposal addressing the following:

- (1) The burden placed on the community and individual households by extremely high energy costs. This burden may be evidenced by such quantitative measures as, for example, total energy expenditures, per unit energy costs, or energy costs as a share of average household income and the persistence of extremely high energy costs compared to national or statewide averages.
- (2) The hardships created by limited access to reliable and affordable energy services;
- (3) The availability of other resources to support or supplement the proposed grant funding; and
- (4) Indications of community support for the proposed project solution to their energy challenges.

#### C. Project Design, Technical Feasibility and Responsiveness to Community Needs (Up to 10 points)

Reviewers will assess the technical and economic feasibility of the project and how well its goals and objectives address the challenges presented to the communities by high energy costs. The applicant must provide a narrative description of the project including a proposed scope of work identifying major tasks and proposed schedules for task completion, a detailed description of the equipment, facilities and associated activities to be financed with grant funds, the location of the high cost communities to be served and an estimate of the overall duration of the project. Reviewers may give higher scores to projects that are substantially ready to proceed with construction or implementation than to those that are early in the project development process.

The Project Design description should be sufficiently detailed to support a finding of technical feasibility and confirmation that the project utilizes commercially available technology. "Commercially available" is interpreted as technology for which spare parts and service expertise is generally accessible. Proposed projects involving construction, repair, replacement, or improvement of electric generation, transmission, and distribution facilities must generally be consistent with the standards and requirements for projects financed with loans and loan guarantees under the RE Act as set forth in the Agency's Electric Programs Regulations and Bulletins and may reference these requirements.

Reviewers may propose conditions on the grant award to assure that the project is technically sound.

#### D. Project Goals and Objectives and Project Performance Measures (Up to 3 points)

Applicants must identify and quantify project goals, objectives and performance measures to track the progress and success of their project. Points will be awarded for the total reach of the project; the renewable energy produced, energy saved, or costs avoided. The applicant should quantify the proposed project benefits and include appropriate measures of project success such as expected reductions in household or community energy costs, avoided cost increases, enhanced reliability, or economic or social benefits from improvements in energy services available to the community. The applicant should include quantitative estimates of cost or energy savings and other benefits and documentation to support its representations about cost-effectiveness savings and improved services. The applicant should also describe how it plans to measure and monitor the effectiveness of the project in delivering its projected benefits.

#### E. Project Management (Up to 22 points)

This section must provide a narrative describing the applicant's capabilities and a project management plan. The description should be broken down into the following subsections:

1. Management Plan and Schedule (up to 10 points). This subsection should include the application's organizational structure, method of funding, if the applicant proposes to use affiliated entities, and production schedule in implementing the grant award. Points will be awarded for robust management plans, and realistic succinct schedules. If the applicant proposes to secure equipment, design, construction, or other services from non-affiliated entities, the applicant must briefly describe how it plans to procure and/or contract for such equipment or services. The applicant should provide information that will support a finding that the combination of management team's experience, financial management capabilities, resources and project structure will enable successful completion of the project.

2. Relevant Organizational Experience (up to 5 points) This subsection should include a detailed description of the organization that will install or implement the proposed projects. Information on success rates, past project long term viability, and consumer complaints are required. If the applicant has received any HECG funding, or other Federal funding a detailed description of past performance is required in this section. Points will be awarded to organizations with proven track records.

3. Key Staff Experience (up to 5 points) This subsection requires bio/descriptions of all key staff must be provided. If the applicant proposes to use affiliated entities, contractors, or subcontractors to provide services funded under the grant, the applicant must describe the identities, relationship, qualifications, and experience of these affiliated entities. The experience and capabilities of these entities will be reviewed by the rating panel. Points will be awarded to applicants that are utilizing key staff with proven track records.

4. Project Reporting Plan (up to 5 points) This subsection should provide a detailed description of a monitoring and reporting plan that covers the construction or implementation period as well as the consequences if the project falls behind. A reporting plan should also include provisions for monitoring and reporting during the subsequent performance operating years. Reviewers will assess points based on the adequacy of the plan and how well it compares to other applications.

5. Regulatory and other approvals (0 points) Though no points are to be expressly awarded for this discussion, the applicant must identify regulatory or other approvals required by Federal, State, local or Tribal agencies, or by private entities as a condition of financing that are necessary to carry out the proposed project and the estimated schedule for obtaining the necessary approvals associated with the project. A robust discussion will serve to support a higher confidence level on the part of the reviewers in assessing the project proponent's expertise and development experience.

#### F. Proposed Project Budget (up to 10 points)

The applicant must submit a proposed budget for the grant program on SF 424A, "Budget Information—Non-Construction Programs" or SF-424C, "Standard Form for Budget Information-Construction Programs," as applicable. All applicants that submit applications through Grants.gov must use SF-424A. The applicant should supplement the budget summary form with more detailed information describing the basis for cost estimates. Reviewers will consider whether the narrative, forms and exhibits provide sufficient information to assess the adequacy of the project budget and the financial feasibility of the project. The application must also demonstrate that administrative expenses will not total more than 4 percent of grants funds, and, in addition, provide a breakdown of any equipment markups, non admin project management and oversight costs that will be billed to the project to show that the totality of costs of this nature will not exceed 26% of the project budget. The detailed budget estimate should itemize and explain major proposed project cost components such as, but not limited to, the expected costs of design and engineering and other professional services, personnel costs (salaries/wages and fringe benefits), equipment, materials, property acquisition, travel (if any), and other direct costs, and indirect costs, if any. The applicant must also identify the source and amount of any other Federal or non-Federal contributions of funds or services that will be used to support the proposed project. If third party funds are contemplated as a contribution toward the total budget, commitment letters or other documentation should be included to allow reviewers to assess the likelihood that the additional funding will actually materialize. Points will be awarded for budget feasibility, realistic budget costs, and total funds requested. Larger projects may be at a disadvantage as RUS seeks to achieve a broad distribution of program benefits, but not necessarily. The reviewers look at the totality of program funds available and the circumstances relating to each project – larger budgets may be associated with project benefits that are needed but which without grant funding under this program would not be realized.

#### G. Rural development initiatives (up to 5 points)

The narrative should describe whether and how the proposed project will support any State rural development initiatives. If the project is in support of a rural development initiative, the application should include confirming documentation from the appropriate rural development agency. The application must identify the extent to which the project is dependent upon or tied to other rural development initiatives, funding and approvals. The applicant should also clarify if they are located in a rural community of less than 20,000 people. Projects that do not support a State rural development initiative, but are located in communities of less than 20,000, will still receive points.

#### H. Priority Considerations (up to 35 points)

In addition to the points awarded for project design and technical merit, all proposals will be reviewed and awarded additional points based on certain characteristics of the project or the target community. USDA Rural Development policies generally encourage agencies to give priority in their programs to rural areas of greatest need and to support other Federal policy initiatives. Accordingly, RUS will award additional points for the priorities identified in this notice. The priority criteria and point scores used in this notice are consistent with the program regulations at 7 CFR Part 1709. RUS will give priority consideration to communities of high poverty, smaller rural and remote communities, projects that incorporate either waste heat recovery, meet a minimum energy efficiency hurdle, or both, projects which serve communities subjected to extraordinary adverse circumstances or conditions and, finally, those projects which have been accepted for SUTA consideration (discussed below). A maximum of 35 points may be awarded under the following priority criteria.

Reviewers will consider the soundness of the applicant's analysis of community needs and benefits, the adequacy of the proposed project plan, the technical feasibility of the project, the adequacy of financial and other resources, the competence and experience of the applicant and its team, project goals and objectives, and the proposed performance measures. RUS may also consider its past experience with the applicant or identified key staff in assessing the risk associated with performance under a project grant agreement. A total of 65 points may be awarded under the following criteria:

##### High Poverty Areas (10 points or 0)

USDA Rural Development is committed to reducing the impacts of high and persistent poverty in rural communities. The economic hardship of extensive and persistent poverty exacerbates the impacts of extremely high energy costs on families and businesses and hampers the community's ability of to meet their energy needs. In support of this USDA initiative, we will award 10 priority points for projects that serve communities in counties that are classified as High Poverty or Persistent Poverty by the USDA Economic Research Service "Geography of Poverty" webpage (<http://www.ers.usda.gov/topics/rural-economy->

[population/rural-poverty-well-being/geography-of-poverty.aspx](http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml)) or that are located in a county with at least one census tract with a poverty rate of 20 percent or more using data from the American Community Survey (ACS) that can easily be accessed through the Census Bureau American Fact Finder webpage (<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>). Applicants may use other population and income data from the U.S. Census, state, or tribal sources if the ACS does not contain information for their community or project area. In the absence of accurate community information The 2015 Application Guide provides additional details on high poverty areas. Reviewers will award 10 points for any application that serves one or more high poverty areas and that has required supporting population information.

Note on Alternative Economic and Population Data for Eligible Territories and Insular Areas: RUS recognizes that comparable economic and household income information may not be available for eligible areas that are not States. Applicants from these areas should provide any public information that is readily available on territorial or national median household income and local community economic characteristics and other indication of economic challenge posed by extremely high energy costs. Applications from these areas will be scored based on the provided data.

#### Rurality (Population) Poverty Areas (up to 10 points or 0)

RUS will apply a sliding scale for awarding points based on population. It has also determined to award the full 10 points to applications from the U.S. Virgin Islands and eligible Pacific Insular areas. This is consistent with USDA Rural Development policy to target resources to smaller rural communities with significant needs and it recognizes that smaller and remote communities are often comparatively disadvantaged in seeking assistance. Priority points will be awarded under one of the two options below:

1. Applications from the Fifty States and Puerto Rico (up to 10 points) Applications from any one of the fifty States or Puerto Rico will be scored based on the population of the largest incorporated cities, towns, villages, or census designated places included within the grant's proposed project area. Points will be awarded on the basis of the population of the largest target community within the proposed target area as follows:

- (a) 2,500 or less, 10 points;
  - (b) Between 2,501 and 5,000, inclusive, 7 points;
  - (c) Between 5,001 and 10,000, inclusive, 5 points;
  - (d) Between 10,001 and 20,000, inclusive, 3 points; and
- (3) Above 20,000, 0 points.

Applicants must use the latest available population figures from the 2010 U.S. Census available at American Fact Finder (<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>) for every incorporated city, town or village, or Census designated place included in the project community area.

2. Applications from the Virgin Islands and Pacific Insular Areas (10 points) Whereas U.S. Census population and economic data are proxy measures for rurality, remoteness and economic challenges, it is a fact that comparable, up to date, U.S. Census population and economic information are not easily available, or are totally unavailable, for communities in the U.S. Virgin Islands and eligible insular areas in the Pacific. This policy will place these applications on an equal footing with competing applications from other comparably remote and rural areas.

#### Waste Heat Recovery and/or Energy Efficiency Projects (up to 5 points)

Projects that incorporate waste heat recovery components, or achieve an improvement in energy efficiency improvement over previous assets in place of 25% or greater are eligible for up to 5 priority points. Waste heat recovery project costs may include duct and other delivery infrastructure up to but not inside a structure wherein the recovered heat will be used. Waste heat recovery projects must incorporate commercially proven technology. If a project calls for new or re-powered generation together with heat recovery capital investments, the underlying generation asset must meet the hurdle rate established for energy efficiency in order to qualify for these points.

Energy efficiency projects are also eligible for priority points, but only those which can be expected to result in a 25% or higher improvement in energy efficiency compared with the status quo. In order to receive these points for energy efficiency the project scope must demonstrate that the efficiencies achieved at the point of generation will not be subsequently dissipated in distribution; such projects may well include distribution and weatherization improvements to assure the reviewers that the expected efficiency improvements will actually be realized at the retail level.

A project that proposes to repower an aging diesel plant with a new generator that incorporates waste heat recovery would receive 5 points. The purpose of this priority category is to allow priority points for one or another priority, but not to allow double points for projects that combine both.

#### Extraordinary Conditions or circumstances (up to 5 points)

The Administrator in his sole discretion has decided to provide up to 5 points for project applications for communities that evidence one or more extraordinary conditions or circumstances that affect the community's ability to provide energy service or to make investments to reduce energy use or costs. Such situations may include but are not limited to:

1. Disaster. The community has suffered a natural or other disaster that affected critical community energy facilities. The application must provide details of when the disaster occurred, the extent of damage and available resources for disaster recovery, including assistance from other agencies.
2. Unserved Energy Needs. Projects that meet unserved or underserved energy needs may be awarded points under this criterion. Examples of proposals that may qualify under this priority include projects that extend or improve electric or other energy services to communities and customers that do not have reliable centralized or commercial service or where many homes remain without such service because the costs are unaffordable.
3. Imminent Hazard. Reviewers may award priority points for projects that will correct a condition posing an imminent hazard to public safety, welfare, the environment, or to a critical community or residential energy facility. Examples include community energy facilities in immediate danger of failure because of deteriorated condition, capacity limitations, damage from natural disasters or accidents, or other conditions where impending failure of existing facilities or the absence of energy facilities creates a substantial threat to public health or safety, or to the environment.
4. Extreme Economic Hardship. Reviewers may award additional priority points for projects serving communities with conditions creating a severe economic hardship to the community or the energy provider. The hardship must be adequately described and documented by the applicant. Examples include, but are not limited to, natural disasters, financially distressed local industry, and loss of a major local employer, persistent poverty, outmigration, or other conditions adversely affecting the local economy, or contributing to unserved or underserved energy infrastructure needs that affect the economic health of the community. Applications from eligible areas that are not States will be scored under this alternative using information provided in the Application. The rating panel may assign points under this criterion, in lieu of awarding points based on the percentage of median household income. Award of priority points under this criterion is in addition to any that may be awarded for high poverty counties. Applicants may qualify under this criterion that do not meet the USDA Rural Development high poverty counties priority above.

#### SUTA Applications (SUTA) (5 points or 0)

Under SUTA regulations at 7 CFR part 1700, subpart D, eligible entities may request special consideration for applications for communities in trust areas that lack adequate levels or quality of service and are in high need of grant assistance. The Administrator, in his sole discretion, has determined to award 5 points to any application from an eligible SUTA entity for projects serving eligible areas that are also eligible for the High Energy Cost Grant Program. To receive these points, the entity must submit a separate application and request for consideration as provided in Part C, Section 1(ii) of the NOSA and program regulations at 7 CFR part 1700, subpart D, no later than December 11, 2017. The decision

to provide SUTA consideration to an eligible application is solely at the discretion of the Administrator. Reviewers will award 5 points to any project application that has been accepted for consideration under SUTA.

#### H. Cost Sharing (0 points)

No points will be expressly awarded for supplementary materials and only letters of support will be accepted as Supplementary materials. No other additional information will be reviewed. The letters of support may, however, serve to influence

#### I. Supplementary Materials (0 points)

No points will be expressly awarded for supplementary materials and only letters of support will be accepted as Supplementary materials. No other additional information will be reviewed. The letters of support may, however, serve to influence the Reviewers' assessment of need for the project and the capabilities of the project proponents.

### **SUBMITTING THE APPLICATION**

Applicants should follow the directions in NOSA in preparing their application packages. The completed application should be assembled in the order specified with all pages numbered sequentially. Your application will be rejected if it does not conform to the page limits/format requirements and include the information, forms, and certifications required in the NOSA.

Applicants that are submitting paper applications should submit one original application that includes original signatures on all required forms and certifications, and two copies of the fully executed original. All applications must be on single sided 8 ½ x 11" letter size pages with 1.0" margins on white paper. All pages must be numbered and formatted using one of the following preferred type faces: Times New Roman, with 12 point font, Calibri with 11 point font, Arial with 11 point font, Verdana with 10 point font or Courier with 10 point font. Narratives may be single or double spaced; all other pages should be single spaced. All pages must be numbered. Only numbered pages will be reviewed. All applications are limited to the page limits specified by each section in this NOSA. Any additional pages will not be reviewed.

Applicants that are submitting applications online through Grants.gov should follow directions on that site (<http://www.Grants.gov>) to complete the application forms and to attach their narrative and other materials to the application package for electronic filing.

### **How to Submit an Application Package**

#### Paper Applications

The completed application package must be delivered to the RUS Electric Programs headquarters at:

Rural Utilities Service, Electric Programs  
United States Department of Agriculture  
1400 Independence Avenue, SW, STOP 1560  
Room 5165-South Building  
Washington, D.C. 20250-1560

Mark the outside of the Envelope: "Attention: High Energy Cost Community Grant Program"

Application packages should be delivered postage paid using United States Mail, overnight delivery service, or by hand. The Electric Programs will not accept applications by email or fax.

Applicants should be advised that regular mail deliveries to Federal Agencies, especially of oversized packages and envelopes, continue to be delayed because of increased security screening requirements. Applicants may wish to consider using Express Mail or a commercial overnight delivery service instead of regular mail. Applicants wishing to hand deliver or use courier services for delivery should contact the Agency representative in advance to arrange for building access. USDA advises applicants that because of intensified security procedures at government facilities that any electronic media included in an application package may be damaged during security screening. If an applicant wishes to submit such materials, they should contact the Agency representative for additional information.

### Electronic Applications

We will accept applications submitted through the Federal Government's online application portal, [Grants.gov](https://www.Grants.gov). You can search for grant opportunities, download application materials, complete your application, upload additional information for your application, and submit your application electronically at Grants.gov. USDA will not accept applications by electronic mail.

Please follow the instructions for preparing and submitting applications under the "Apply" tab at Grants.gov. All the forms that you need to submit your application are available there. Follow Grants.gov directions for uploading additional information for your application.

If you encounter a technical problem retrieving or submitting an electronic application, contact the Grants.gov customer support resources directly (click the "Customer Support" tab on any page of Grants.gov to get started). USDA does not control the technical aspects

of Grants.gov and we won't be able to help you if you experience a problem. We can, however, answer questions about the application materials posted there and what we require.

If you want to submit an application on line, USDA strongly encourages you to allow time to obtain all the necessary registrations, and authorizations well in advance of the deadline. You will need to provide a DUNS number, register with the System for Award Management (SAM) (formerly the Central Contractor Registry (CCR)) and finalize your grants.gov organization or individual registration before you can submit electronically. Applicants may register for the SAM at <https://www.sama.gov>. These procedures may take up to a week or more to complete. Please make sure that your credentials and registration are up to date. Some or all of SAM and Grants.gov registrations require an annual update.

If you are applying through Grants.gov, you do not need to submit two copies as required for mailed applications. We may, however, request that you provide original signatures on paper as part of the pre-award review if your project is selected.

**IMPORTANT:** If you are applying through Grants.gov, you are responsible for assuring that the electronic files submitted are in a format that can be read by RUS. Please check the Grants.gov website for information on compatible formats. If you encounter problems submitting your application through Grants.gov and cannot resolve the issue through their assistance hotline, please get in touch with the Agency contact before the application deadline for advice on how to proceed.

### **Deadline for Submission and Late Applications**

**VERY IMPORTANT:** Your application package must be postmarked and mailed through the United States Postal Service or commercial overnight delivery service on or before December 11, 2017, or hand delivered to the RUS Electric Programs by 4:00 pm December 11, 2017. Electronic Applications must also be filed with Grants.gov on or before midnight (EDT) December 11, 2017. The Electric Programs will accept for review all applications postmarked, submitted to Grants.gov, or hand delivered to by this deadline. Late applications will not be considered.

**APPENDIX A - RESOURCES**

## **Target Area Worksheets for the High Energy Cost Grant**

Many applicants find it useful to present information in tabular format. These optional worksheets are provided for the convenience of applicants in assembling and organizing community information to support their applications. Applicants are not required to use these worksheets in their applications.

### **Geographic, Population, Income, and Community Characteristics Worksheet**

This worksheet is useful for presenting descriptive information about the community that can be used for determining eligibility and supporting the award of additional priority points for rurality and economic hardship.

### **Community Energy Characteristics Worksheet**

This worksheet is useful for presenting information about community energy use and costs necessary for establishing eligibility.

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## Extremely High Energy Cost Community Grant Program

Extremely High Energy Cost Community Grant Program

Optional Area Worksheet

## Examples of Eligible Projects for the High Energy Cost Grant Program

The RUS has developed four examples of communities and projects that may qualify under this program. The examples are illustrative only and do not reflect any actual grant proposals. The examples demonstrate how the eligibility requirements of this NOSA can be satisfied using alternative benchmarks and measures for diverse projects.

Example 1     Electric Distribution System Upgrade and Replacement of Bulk Fuel Storage Facilities

Example 2     Rural Electrification Project – Electric Distribution, Native American Reservation

Example 3     Rural Electrification Project with Renewable Energy

Example 4     Low-Income Residential Energy Efficiency and Weatherization Program

Example 1

Electric Distribution System Upgrade and Replacement of Bulk Fuel Storage Facilities and Rural Power System Improvements in a Rural and Remote Village

Target Community A is a remote rural Alaskan village of less than 2,000 inhabitants. It is served by a municipal utility. Its county median household income is 75 percent of the statewide average.

The primary residential energy sources used in the community are electricity and fuel oil. The average revenue per kilowatt hour (kWh) for residential customers is 23 cents per kilowatt-hour. The typical residential customer uses 500 kilowatt hours per month. Annual household electricity bills average \$1,380. Because of its remote location, fuel oil is more expensive in this community than in more urban areas. In recent years fuel oil has averaged over \$4.35 per gallon, delivered. Because of the harsh climate, the average household uses over 1,000 gallons of fuel oil per year and the average annual household fuel oil bill totals over \$4,350.

The local government-owned utility of Community A submits a proposal for a rural power system upgrade to repair and replace segments of its electric distribution system and to replace and upgrade the village's deteriorated fuel oil storage tanks and bulk fuel handling system to comply with Federal environmental requirements. Use of grant funds for the project will avoid increases in home energy costs, enhance the reliability of the village energy infrastructure, and remedy an imminent environmental hazard. Total cost of the project is estimated at \$ 2.5 million. The applicant proposes to contribute \$250,000 towards project costs from a combination of internal funds and a State grant.

Is Community A an eligible applicant?

Yes. A local government body is an eligible applicant.

Is Community A an eligible extremely high energy cost community?

Yes. The average annual household consumption in Community A totals over 1,000 gallons of fuel oil per year and the average annual household fuel oil bill is over \$4,350. This expenditure is substantially over the high energy cost benchmark of \$2,903 per year representing 275 percent of the national average annual household expenditure for fuel oil. Therefore, the community qualifies as an extremely high energy cost under this NOSA based on average annual expenditure for fuel oil.

The reported average per unit household energy cost of \$0.23 per kWh and annual expenditures of \$1,380 for electricity in Community A, while above the national average, does not meet the eligibility benchmarks for electricity of \$0.345 per kWh or \$3,685 per year as provided in the NOSA. However, the average household energy expenditures for fuel oil and electricity combined total \$5,730 which exceeds the total annual household energy cost benchmark of \$5,546 per year. The community is eligible under the total household energy cost benchmark.

Is Community A's proposed grant project an eligible purpose?

Yes. Repair, replacement, and upgrades of electric generation and distribution facilities and bulk fuel facilities are eligible purposes under this program.

## Example 2

### Rural Electrification Project – Electric Distribution, Native American Reservation

Target Community B is located in an extremely rural area of an Indian Reservation that currently does not have central station electric service. Less than 5,000 people live within the boundaries of this Federally-recognized reservation. The largest Census Designated Place (CDP) within the reservation has a population of 1,100 people. The median household income of the county in which the reservation is located is 75 percent of the statewide average. Median household incomes on the reservation are less than 60 percent of the statewide average. About 3,000 people live in the proposed area.

Households in the area rely on a variety of fuels and technologies for energy services. Some households rely on gasoline-driven electric generators to provide electricity for their individual homes. Members of the community also rely on wood, kerosene, and propane for heating and cooking. A small, densely settled area on the boundaries of the reservation receives electric service from a neighboring investor-owned electric system under the utility's state-approved residential rate. Other areas on the reservation are served by the Tribal Utility. Monthly electricity use for tribal homes in this area averages about 700 kWh.

About 40 percent of the homes on the reservation lack on-grid electric service. Because of the widespread lack of commercial energy services, there is little available information on average community energy costs. Surveys of a representative sample of homes indicate that residents rely on a combination of gasoline generators, propane, kerosene, and fire wood to meet their energy needs. Average household energy costs are estimated to be in excess of \$5,000 per year exclusive of the costs of firewood. In the most recent year, the fuel cost for running a gasoline powered generator has averaged in excess of \$0.79 per kilowatt hour. The average annual cost of generating approximately 400 kWh per month for household needs using a gasoline generator exceeds \$3,700 per year.

The Tribal utility proposes to extend its electric distribution system within the unserved areas of the reservation. The Tribal utility submits an application for grant funds for system design and planning, and construction to expand its electric distribution to serve community facilities and approximately 300 residences. Utility revenues and conventional financing will support subsequent expansion of the system. The Tribe believes that an important benefit of the project will be that the availability of modern utility infrastructure on the reservation will improve the living conditions of residents, support economic development, and encourage younger members of the tribe to make their homes on the reservation.

A preliminary engineering study is available providing cost estimates for building out the tribal distribution system, future wholesale power costs, and projected electricity demand. If the project is completed, electricity is expected to be the major source of home energy.

The estimated cost of constructing phase I of the distribution system to serve 300 residential customers is \$5,500,000. Estimated monthly electricity use for new residential customers after project completion is about 700 kWh based on characteristics of similar communities. The engineering study reports the average regional cost of wholesale power delivered is \$0.08 and the average cost of distribution expenses for the tribal utility is \$0.04 kWh for residential customers. Assuming that the \$5,500,000 project cost is financed at 6 percent interest over a period of 35 years, estimated fully-allocated costs to serve the 300 homes in the area (excluding margins) can be calculated as follows:

<b>Cost/Expense</b>	<b>Usage/Cost</b>
Annual system electric usage (including losses)	2,646,000 kWh
Net annual system electric usage	2,520,000 kWh
Annual debt service	\$376,325
Annual power purchase costs	\$500,000
Annual distribution system expenses	\$105,840
<b>Total Costs</b>	<b>\$981,165</b>
Cost per kWh	\$0.389

Is Community B an eligible applicant?

Yes. An Indian tribe or a tribal utility owned, controlled by, or sanctioned by the tribal government is an eligible applicant under this program.

Is Community B an eligible extremely high energy cost community?

Yes. Because the area is not served energy utilities, determination of eligibility will have to be based either the projected costs of constructing the new system and procuring power supplies or the estimated average annual costs of providing typical levels of household energy services using existing combination of gasoline generators, propane, firewood, and kerosene.

In this example, Community B is able to demonstrate that the average revenue per kWh cost for a new on-grid electric distribution system with a small customer base is projected to be \$0.389 per kWh. This estimated residential electric cost exceeds the eligibility benchmark for per unit electricity costs of \$0.345 per kWh. Community B's area qualifies as an extremely high energy cost community under this program.

Alternatively, the cost of providing electricity via gasoline generators is over \$0.79 per kWh –well in excess of the benchmark of \$0.345 per kWh and would exceed over \$3,700 per year to provide an average of 400 kWh per month. The community qualifies under both the electricity benchmarks. In this example, the community may also qualify if the applicant can demonstrate that estimated annual costs of providing household energy services using the existing combination of gasoline, propane, kerosene, and firewood exceed the total annual energy expenditure benchmark of \$5,546.

Is Community B's proposed grant project an eligible purpose?

Yes. The proposed construction of a distribution system under the tribe's electrification project qualifies as an eligible purpose.

### Example 3

#### Rural Electrification Project with Distributed Renewable Energy

Target Area C is within a utility service territory located in a sparsely populated rural area and encompassing portions of an Indian Reservation. Applicant C a local electric distribution utility, which serves the reservation and surrounding areas, proposes to provide electricity to unserved areas in its service territory through line extensions or by providing a package of an off-grid renewable generator and energy efficient electric appliances to provide basic home energy services in lieu of extending distribution lines and central station service.

The grant would help reduce the costs for participating households. The grant will benefit scattered rural communities that, although located within the service area of an existing electric utility, do not have any central station electric service because of the costs.

Together these scattered households comprise the grant's proposed target areas. These unserved areas consist of clusters of up to ten single-family units in close proximity. These household clusters are isolated from each other and are located over a large geographical area. Some of these households have gasoline-driven electric generators that serve their individual homes or family-communities. Other sources of energy, such as wood, oil, and propane are also used for heating and cooking. Because of the lack of centralized utility services, there is little available information on total household energy costs. Eligibility of the target community will be determined based on the estimated incremental costs of extending service to these new customers and/or the costs of providing off-grid (distributed) energy service.

The service area extends over several counties and has about 3,700 customers. Most of the service area, including all of the proposed target area, however, is located outside CDPs. The largest incorporated town in the target area has a population of 3,400 persons. County median household income is 74 percent of the statewide average.

The utility's planning and engineering studies document the high costs of extending service to these remote settlements. In rugged areas of its service territory, costs for constructing distribution lines exceed \$100,000 to \$150,000 per mile. The utility serves fewer than four customers per mile of line on average. The utility estimates that average costs of extending its distribution system to connect these settlements will be over \$45,000 per household, excluding costs of power supply. The costs of line extension far exceed the construction allowance provided by the utility. Extending service is not cost-effective for the local utility under its rate structure. The average rural household with electric service uses only about 800 kWh per month at a residential rate of \$0.109 per kWh. The average monthly bill is about \$87.20. The fully allocated cost to recover average line extension costs of \$45,000 per household over a 35 year period would add approximately \$227.11 per month. Revenues from typical residential loads in the unserved areas would be insufficient to recover the \$227/month or more needed to recover the initial investment to extend distribution service over a 35 year period, exclusive of the costs of generation and distribution service. The fully allocated monthly costs to serve these households would total over \$314 and the annual costs of providing service would average \$3,772, above the \$3,685 per year eligibility benchmark for annual electric expenditures. This annual cost of \$3,772 to connect unserved homes establishes the community as eligible. The inability of many low incomes residents to afford the additional customer contribution above the utility's standard line extension allowance has proved to be a significant deterrence to electrification. The costs of averaging service extension costs for all unserved areas across its customer rate base would substantially raise consumer rates to other mostly low-income consumers.

As an alternative to extending distribution lines, the utility estimates that it could provide a modest level of electric service of about 400 kWh per month to a typical off-grid home by installing individual renewable energy generation systems (such as solar or wind) with energy storage and backups to provide electricity for a single family or cluster of households. The cost of a solar power installation is estimated at approximately \$32,000 per household –less than the costs of line extensions for many homes. Even so, the utility estimates that cost recovery for the solar system would require a payment of slightly over \$270 per month over a 15 year period – over six times the average residential electric bill for 400 kWh/month (\$43.60) but less than the allocated cost of the line extension. The off-grid solar systems would provide electricity at a cost of about \$0.67 per kWh, exclusive of backup generation fuel costs. Larger systems would be made available at additional cost. The grant would be used to help bring down the costs of the solar systems.

The grant application proposes to use a combination of customer revenues, utility cost contributions, and grant funds to support the off-grid electrification project. As an additional benefit, the project will create several new community-based jobs in installing and servicing the household energy systems. The project also benefits the utility and its existing ratepayers by avoiding the higher costs of extending the utility’s distribution system into these sparsely-populated areas and the costs of procuring wholesale power to serve the new loads.

The applicant documents that distributed generation is the lowest cost option for providing basic electric service to many residences in the target area. The applicant’s engineering study describes the units that will be required and the costs associated with operating the facilities. The costs of providing and operating each unit will not vary greatly because these solar units will be operated off-grid. Thus, an analysis of one unit will be sufficient to show feasibility and cost of service.

Each installation is assumed to have a total project cost of about \$32,000 and will supply average household electricity usage of 400 kWh per month. The analysis assumes costs would be recovered over a 15 year period at an interest rate of 6 percent with a monthly payment of \$270. Total annual household electricity use is 4,800 kWh at an annual cost of \$3,240. The cost of electric service is approximately \$0.675 per kWh. This exceeds the electricity eligibility benchmarks of \$0.345 per kWh and establishes the target area as an eligible extremely high energy cost area even though it is located in the service territory with per unit electricity costs that are close to the national average.

Is Applicant C an eligible applicant?

Yes. Applicant C as a local electric utility organized under State law is an eligible applicant.

Does Applicant C’s identified target group of unserved off-grid homes qualify as an eligible extremely high energy cost community?

Yes. The annual average cost for providing a modest level of electric service of 400 kWh/month to the currently off-grid households in the target area with PV systems is \$0.675 per kWh and exceeds 275 percent of the national average on a per unit basis. The annual costs of extending service to the off-grid residences can also be reasonably determined to exceed \$3,772 on a fully-allocated cost basis and is above the \$3,904 per year eligibility benchmark for annual electric expenditures. The group of unserved off-grid homes in the service territory target area qualifies as an extremely high energy cost community under either option.

Is Applicant C's proposed off-grid electrification project an eligible purpose?

Yes. Applicant C proposes to extend and improve household energy services through a combination of off-grid renewable generation, battery storage, and efficient appliances. For situations where the cost of a line extension is less than off-grid service the applicant proposes to use grant funds to fund the difference between the cost of connecting the customer and utility's extension allowance. These activities are eligible purposes under this program.

#### Example 4

##### Low-Income Residential Energy Efficiency and Weatherization Program

Target Area D is located within a utility service territory that encompasses rural portions of several counties. The area experiences extreme winter and summer weather resulting in annual household energy bills for many rural consumers that exceed one or more of the total annual expenditure eligibility benchmarks. The system-wide average electric rate is 16.04 cents per kilowatt-hour. Most rural households rely on a combination of electricity, propane, kerosene, wood for home energy needs. The extremely high energy costs impose substantial economic burdens on low-income households and many are having difficulty in paying their bills.

Applicant D, a local electric distribution utility that serves the areas, has analyzed its customer usage data and conducted extensive home energy audits. It has determined that its territory includes more than 1000 customers in clusters of low-income customer households with disproportionately high energy consumption and annual electricity bills in excess of \$3,904 per year.

The utility estimates that this usage could be reduced substantially through a comprehensive package combining energy efficient appliances, lighting, and heating and cooling equipment, weatherization, and repairs. Many of these families live in older manufactured homes with inefficient electric heat systems and inadequate weatherization that were built before the current more stringent energy efficiency standards and industry practices. Unfortunately, the customers often lack access to the financial resources that would allow them to take advantage of energy-saving opportunities.

The utility proposes to use high energy cost grant funds to assist low-income households in implementing energy-saving measures identified through energy audits. The utility estimates that these measures could reduce the annual energy usage for participating households by up to half. The utility proposes that its eligible high energy cost grant community consist of low-income high energy consumption households in its service territory that exceed one or more of the annual home energy expenditure benchmarks.

The utility's service area extends over several counties has more than 13,000 customers. Most of the service area, including all of the proposed target area, however, is located outside CDPs. The largest incorporated town among the target communities has a population of 2,200 persons. County median household income is 65 percent of the statewide average.

The utility's customer records, energy audits and planning studies document the pattern of low-income – high usage customers in rural areas. The average household in its service territory uses only about 1,031 kWh per month at a residential rate of \$0.1604 per kWh and the average annual bill averages about \$1,985. In contrast, these high-usage households often average in excess of 2000 kWh per month and have average annual bills exceeding \$3,950, which is above the total annual electricity cost benchmark of \$3,904.

The utility estimates that a modest investment in cost-effective energy efficiency measures could reduce household energy use by 30-40 percent, providing savings to the customer and making energy bills more affordable. The utility has enlisted the assistance of the local community action agency, local social services agency, and the State Energy Office to help identify eligible low-income households, cooperate in consumer education and outreach efforts, and to coordinate volunteer activities.

The grant application proposes to use a combination of grant funds, utility funds, sliding-scale customer cost contributions, and contributions of funds and services from local community action groups and the State energy office to support the project. The non-Federal resources would provide over 20 percent of the project costs. As an additional benefit, the project will create and/or support new community-based jobs in conducting energy audits and education, installing energy efficient equipment and lighting, and making energy-saving repairs. Selected homeowners would participate in training on efficiency and the importance of maintenance of the efficiency measures. The project also benefits the utility and all its ratepayers by reducing energy demand and avoiding the costs of procuring wholesale power to meet these loads and deferring the need to upgrade distribution facilities to meet loads.

Is Applicant D an eligible applicant?

Yes. Applicant D as a local electric utility organized under State law is an eligible applicant.

Does Applicant D's identified target group of low-income high-energy-use households qualify as an eligible extremely high energy cost community?

Yes. Extremely high costs to serve areas of a utility service territory are eligible as a target area even if the entire service territory or target community is not. The utility's customer usage, billing, and location information allows the identification and verification of clusters of qualifying rural households with average home electricity costs in excess of \$3,950 per year and which comprise the target area. These target area household costs are well over the eligibility benchmark of \$3,904 per year. This identifiable group of eligible beneficiaries within the target area qualifies as an extremely high energy cost community.

Is Applicant D's proposed residential energy efficiency project an eligible purpose?

Yes. Applicant D proposes to provide and improve energy delivery to eligible households by reducing energy usage and annual costs through a combination of installed energy efficiency measures and weatherization. This is an eligible purpose under this program.

## **APPENDIX B**

### Required Forms, Certifications and Templates

#### STANDARD FORMS

SF-424 Application for Federal Assistance

SF-424A Budget Information - Non-Construction Programs

SF-424B Assurances - Non-Construction Programs

SF-424C Budget Information-Construction Programs

SF-424D Assurances - Construction Programs

SF-LLL Disclosure of Lobbying Activities

SF-LLL-A Disclosure of Lobbying Activities (Continuation Sheet)

#### Other Required Forms and Certifications

USDA Form AD 1047 - Certification Regarding Debarment, Suspension and Other Responsibility Matters

AD-3031 Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants

Form RD 400-1 Construction Contract Equal Opportunity Clause

Form RUS 266 Civil Rights Assurance

High Energy Cost Grant Program Environmental Questionnaire (see Appendix C)

NOTE: The above documents can also be accessed electronically at the High Energy Cost Grant Program website under "Forms and Resources" at:

<https://www.rd.usda.gov/programs-services/high-energy-cost-grants>

## APPENDIX C

### High Energy Cost Grant Program

### 2017 Environmental Questionnaire

#### Overview

The USDA Rural Utilities Service (RUS) is required to assess the potential impacts of proposed federal actions, including the provision of financial assistance through the High Energy Cost Grant Program (HECG), to the human environment in accordance with the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and other federal, state, and local environmental laws. HECG applicants must complete and submit this Environmental Questionnaire (EQ) with their applications for financial assistance. This EQ provides information to RUS so that RUS can either complete the environmental review process or determine the appropriate level of additional impact analyses need in accordance with RUS Environmental Policies and Procedures, [7 CFR Part 1970](#). RUS's entire regulation, subparts, guidance and templates can be found online at <https://www.rd.usda.gov/publications/regulations-guidelines/instructions> scroll down to PART 1970: ENVIRONMENTAL. RUS will notify applicants if additional information or analyses are necessary beyond what is submitted in the EQ.

No construction activities may begin until final environmental approval from RUS is granted. In accordance with 7 CFR § 1970.12, awardees are prohibited from taking actions that may have an adverse environmental impact or limit the choice of practicable alternatives that may be considered until RUS has concluded the environmental review process. If the proposed project involves construction activities or property acquisition, the applicant is generally prohibited from acquiring, rehabilitating, converting, leasing, repairing or constructing property or facilities, or committing or expending Agency or non-Agency funds until after RUS has concluded its environmental review requirements.

An applicant may submit to RUS a copy of any environmental review document that has been prepared in connection with obtaining permits, approvals, or other financing for the proposed project from state, local or other federal agencies. Such material, to the extent determined to be relevant, may be used to fulfill RUS environmental review requirements. Applicants shall not reference items provided in other parts of the application package in the EQ; all materials relevant to the EQ must be integrated herein to facilitate timely review.

#### Requested Information

#### Project Description and Location:

Provide a concise project description. Include area to be disturbed (acres, sq. feet, previously disturbed or undisturbed), dimensions (length of line, height of poles, depth of excavation, etc.), and what is proposed.

New facility or an upgrade/replacement? If the latter, will it be in or on the same footprint as the existing facility?

Include the location of the project, either by latitude/longitude, address, intersection or description. Location information needs to allow someone unfamiliar with the area and project to locate the proposed project, more than just the county.

Complete descriptions, locations and mapping must be provided for each site affected by project-related construction activities. Photographs, site plans, or aerial images may also be useful.

The use of digital mapping is highly encouraged. Applicants may submit project information as Keyhole Markup Language (KML) or Shapefile (SHP).

If an applicant cannot provide digital maps RUS recommends U.S. Geological Survey 7.5-minute quadrangle maps at a map scale of 1:24,000; larger scale maps may be provided for site-specific proposals. USGS maps may be obtained and purchased on the USGS <https://www.usgs.gov/products/maps/overview>.

Land Ownership and Use:

Describe the amount of property to be cleared, excavated, fenced, or otherwise disturbed by the proposed project.

Describe the current land use and zoning for each project site affected by construction.

Determine land ownership and provide a point of contact for land owners other than private holdings. Note: all roads and associated right-of-ways (ROW) traversing federal lands are normally controlled by the appropriate federal agency

Federal Publicly managed lands (i.e. BLM, National Parks, Forrest Service, USACE)

Private inholding in federally managed lands

Tribal

State

Information related to federal lands can be found online at ArcGIS <http://arcg.is/00C9Sv> or USGS National Map [https://nationalmap.gov/small\\_scale/mld/fedlanp.html](https://nationalmap.gov/small_scale/mld/fedlanp.html). Tribal lands managed by Bureau of Indian Affairs can be found at [https://nationalmap.gov/small\\_scale/mld/indlanp.html](https://nationalmap.gov/small_scale/mld/indlanp.html)

Farmlands: Farmland Protection Policy Act (FPPA) is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

Determine whether the project may irreversibly convert farmland (directly or indirectly) to nonagricultural use in accordance with the FPPA (<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>).

Use the mapping tools of the Web Soil Survey (WSS) <https://websoilsurvey.sc.egov.usda.gov> to determine if a project is located on important farmland (prime, unique, or of statewide importance)

If a project has the potential to convert important farmland consultation with the local USDA, Natural Resources Conservation Service (NRCS) office must be completed.

Complete Parts I, V, and VI of Form AD-1006, available online at [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1045394.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045394.pdf)

Criteria for Part VI are found at 7 CFR 658.5 <https://www.ecfr.gov/cgi-bin/text-idx?SID=63f5083e8993ba642eab888a9ccc585f&node=7:6.1.3.6.28.0.13.5&rgn=div8>

Submit the completed form to the appropriate local NRCS office

Include consultation results

Wetlands:

Identify whether wetlands are present on or near the site(s) affected by proposed construction (maps of wetlands may be obtained from the U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) website available online at <https://www.fws.gov/wetlands/>). The presence of hydric soils may also indicate wetlands; consult the NRCS WSS <https://websoilsurvey.sc.egov.usda.gov> for hydric soil data

Include the wetland map(s) with the project location(s) clearly indicated.

NWI maps are a gross indicator, so if it appears wetlands are present, and project design or routing cannot avoid them, a delineation should be conducted. Results of the delineation and a concise project description are provided to the nearest U.S. Army Corps of Engineers office (Regulatory Branch) with a request for a preliminary jurisdictional determination and associated permit requirements.

Additional guidance can be found in Subpart G of RUS's regulation (<https://www.rd.usda.gov/files/1970g.pdf>)

Note: For most projects involving buried cable, applicants will be able to utilize the U.S. Army Corps of Engineers, Nationwide Permit Number 12, Utility Line Activities.

Floodplains:

Review Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), available at <https://msc.fema.gov/portal>.

Note: Applicants with projects in areas unmapped by FEMA should refer to § 1970.257(c)(5), <https://www.rd.usda.gov/files/1970f.pdf> or contact RUS for further guidance on determining flood risk.

Describe and indicate whether or not any facility(ies) or site(s) are located within the 100 and 500-year floodplain.

Include the floodmap(s) with the project location(s) clearly indicated.

Coastal Areas:

Determine whether or not the project is within the boundaries of a coastal zone management area (CZMA). See National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management's website - <https://coast.noaa.gov/czm/mystate/> for CZMA boundary and contact information

If the project falls within a CZMA contact the state's Coastal Zone Management Program to determine if a Federal Consistency Determination will be required

If required, initiate Consistency Determination process with the state.

Provide the determination with the EQ or once available.

Protected Species:

Applicants must obtain an official species list from the U.S. Fish and Wildlife Service's (USFWS), available from the Information for Planning and Consultation (IPaC) website <https://ecos.fws.gov/ipac/>

Determine whether listed resources will be exposed to the proposed action or to any of the environmental changes that are likely to occur due to the project.

Compare potential project impacts to appropriate species information (i.e. habitat requirements, species threats).

Describe whether any proposed project site(s) and activities will directly or indirectly affect:

Any threatened, endangered or candidate species, or

Is within or near designated critical habitat as designated under the Endangered Species Act of 1973.

Note: beneficial, insignificant, or discountable effects must be considered and disclosed

The preferred source for information and technical assistance is the local USFWS Field Office website, online listing available at <https://www.fws.gov/ecological-services/map/directory.html>

Additional guidance can be found in Subpart N of RUS's regulation (<https://www.rd.usda.gov/files/1970n.pdf>)

Section 106 of the National Historic Preservation Act (NHPA) Review:

Determine whether the project will cause any effects to any historic properties eligible for listing or listed on the National Register of Historic Places (NRHP) <https://www.nps.gov/nr/research/>.

Determine whether the project will cause any effects to any known archeological sites and NRHP listed or eligible resources. Information can be obtained from the State Historic Preservation Officer (SHPO) in your respective state. The National Conference of State Historic Preservation Officers provides a directory of SHPOs online at <http://ncshpo.org/directory/>.

As described in section B, applicants must also indicate if any portion of the project is located on tribal lands (lands within the exterior boundaries of any Indian reservation and all dependent Indian communities). Information regarding historic properties located on tribal lands may be obtained from the Tribal Historic Preservation Officer (THPO) or the tribe's official representative for historic preservation. A listing of designated THPOs can be obtained through the US Housing and Urban Development's (HUD) Tribal Directory Assessment Tool (TDAT) available online at <https://egis.hud.gov/tdat/Tribal.aspx>

Additional Assistance/Contact Information

In addition to the resource specific references provided above, general NEPA related information and guidance can be found on both the CEQ <https://ceq.doe.gov> and the EPA <https://www.epa.gov/nepa>. For information related to Section 106, see the Advisory Council on Historic Preservation <http://www.achp.gov/docs/CitizenGuide.pdf>.

Please direct any questions regarding the environmental review process to 202-205-9805.