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Rural Energy for America Program (REAP) Virtual Workshop

## Preparing Your REAP Proposal

February 27, 2024, Murfreesboro



Real. Life. Solutions.



**UT EXTENSION**  
INSTITUTE OF AGRICULTURE  
THE UNIVERSITY OF TENNESSEE

# First Register for: UEI (Unique Entity Identifier) and SAM

- **MUST HAVE UEI AND REGISTER IN SAM TO SUBMIT!**
- **Below is a link to SAM Registration (Official U.S. Government Website)**
- <https://sam.gov/content/home>
- Register Your Entity or Get a Unique Entity ID (UEI)
- Must have UEI
- Same Day (I would do that immediately)
- The below is a link to both a video and a guide for getting UEI
- [https://www.fsd.gov/gsafsd\\_sp?id=kb\\_article\\_view&sysparm\\_article=KB0038428](https://www.fsd.gov/gsafsd_sp?id=kb_article_view&sysparm_article=KB0038428)
- **Link provided below is a “how to“ for SAM Registration**
- <https://www.youtube.com/watch?v=n-aB763ohe8>
- **SAM Can take up to 30 days or even longer!**
- **SO IF YOU ARE GOING TO APPLY FOR REAP REGISTER FOR SAM ASAP!!!**
- **Below is a link to a series of presentations including filling out F424 (something else you will have to do!)**
- [https://www.youtube.com/watch?v=3Yt1\\_tDexEg&list=PLwtRQQ0pVhiWcZ6cQiOfKcpNssfZUcGwB](https://www.youtube.com/watch?v=3Yt1_tDexEg&list=PLwtRQQ0pVhiWcZ6cQiOfKcpNssfZUcGwB)
- Also must fill out SF-424C AND SF-424D

# Program Goal and Some Terms

- Renewable Energy Systems (RES)
- REAP seeks to promote renewable energy development for agricultural producers and rural small businesses by providing grants and guaranteed loans for eight different categories of renewable energy production (e.g., wind, solar, anaerobic digestion, hydro, and geothermal)
- Energy Efficiency Improvements (EEI)
- It also seeks to promote energy efficiency improvements for agricultural producers and small rural businesses by providing grants and guaranteed loans

# REAP Funds may be used for renewable energy systems (RES)

- Biomass (for example: biodiesel and ethanol, anaerobic digesters, and solid fuels)
- Geothermal for electric generation or direct use
- Hydropower below 30 megawatts
- Hydrogen
- Small and large wind generation
- Small and large solar generation
- Ocean (tidal, current, thermal) generation

EEl Funds may be used for the purchase, installation and construction of energy efficiency improvements

- High efficiency heating, ventilation and air conditioning systems (HVAC)
- Insulation
- Lighting
- Cooling or refrigeration units
- Doors and windows
- Electric, solar or gravity pumps for sprinkler pivots
- Switching from a diesel to electric irrigation motor
- Replacement of energy-inefficient equipment (think creatively here!)

## What Types of Businesses are Eligible?

Farmers (anywhere) who get at least 50+% of their net income from farming

OR

Small, Rural, Businesses

# Agricultural Producers Eligible Regardless of Location

- Agricultural producers may also use grant funds in helping to install energy efficient equipment and systems for agricultural production or processing
- Majority of gross income must come from farm to be considered an agricultural producer
- Determination made based on three years of federal tax return



# Eligible Rural Business?

- Projects must be located in rural development areas, defined as an area not a city or town with 50,000 or more inhabitants as well as the urbanized areas surrounding the city or town.
- Project must be located in rural area; headquarters can be urban
- Can Check Eligibility at the below:
- <https://eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do?pageAction=RBSmenu&NavKey=property@13>





# ELIGIBILITY

Home Tutorials

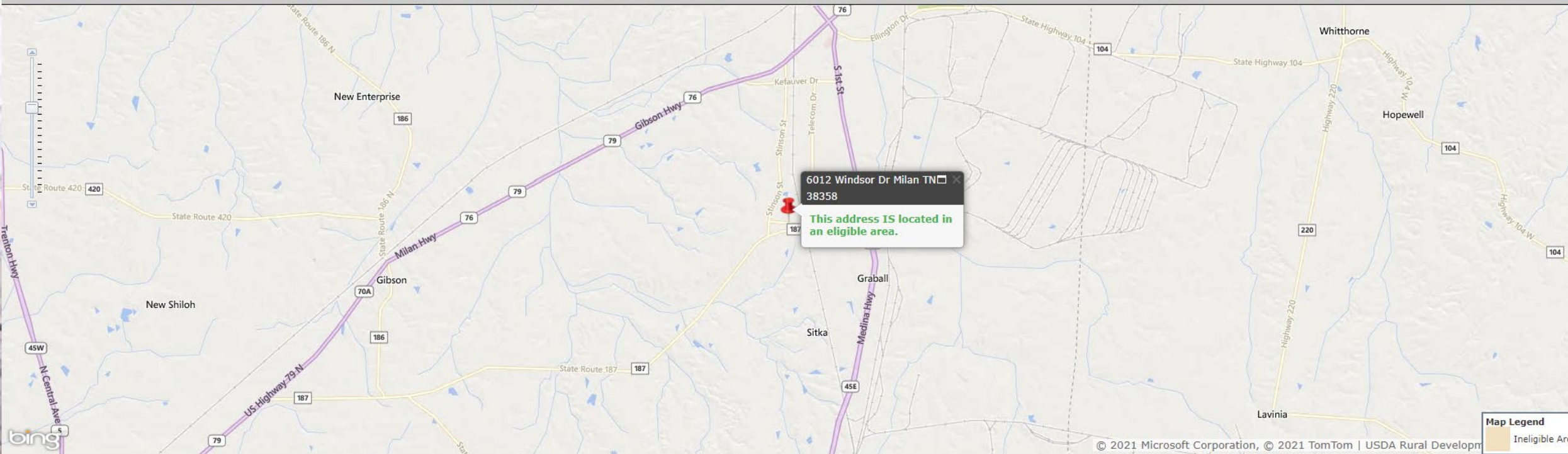
Single Family Housing Guaranteed Single Family Housing Direct Multi-Family Housing Rural Business Water and Environmental Guaranteed Community Facilities Guaranteed

Property Eligibility Loan Basics What Kind Of Funding Am I Eligible For?

6012 Windsor Dr. Milan, TN



Switch Basemap



# With a Few Exceptions Must be a Small Rural Business

- Most non-profits are not eligible
- For example, Associations (like a Soybean Board) are not eligible
- Non-profits that are eligible:
  - Cooperative
  - Electric utility
  - Tribal corporation or other tribal business entity

# Size Designation for Small Rural Businesses

- Meet the SBA size designation for your NAICS (based on gross revenue or employment)
- Small is based on determination for your given industrial classification (that is your North American Industry Classification System(NAICS) code)
- Determination is either based on number employees or gross income (the average number of people employed (including all part-time) for each pay period over the business's latest 24 calendar months)
- <https://www.sba.gov/document/support--table-size-standards>
- Franchises are usually based on numbers for parent company but discuss with Tennessee USDA-RD (see Chuck Morris Presentation)
- Or meet the following two requirements:
  - Your maximum tangible net worth is not more than \$15 million AND
  - Your average net income after Federal income taxes for the 2 full fiscal years before the date of application is not more than \$5 million
- For projects <\$200k can certify that you are a small business instead of providing financials

# SBA Small Example Based on Employment

<https://www.sba.gov/document/support-table-size-standards> (go to bottom for .xlsx)

	A	B	C	D
	NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees
1				
153	311111	Dog and Cat Food Manufacturing		1,250
154	311119	Other Animal Food Manufacturing		650
155	311211	Flour Milling		1,050
156	311212	Rice Milling		750
157	311213	Malt Manufacturing		500
158	311221	Wet Corn Milling and Starch Manufacturing		1,300
159	311224	Soybean and Other Oilseed Processing		1,250

# SBA Small Example Based on Gross Revenue

	A	B	C	D	
	NAICS Codes	NAICS Industry Description	Size standards in millions of dollars	Size standards in number of employees	
1					
604	444110	Home Centers	\$47.0		
605	444120	Paint and Wallpaper Retailers	\$34.0		
606	444140	Hardware Retailers	\$16.5		
607	444180	Other Building Material Dealers	\$25.0		
608	444230	Outdoor Power Equipment Retailers	\$9.5		
609	444240	Nursery, Garden Center, and Farm Supply Retailers	\$21.5		
610	<b>Subsector 445 – Food and Beverage Stores</b>				
611	445110	Supermarkets and Other Grocery Retailers (except Convenience Retailers)	\$40.0		
612	445131	Convenience Retailers	\$36.5		

# Requirements

# Renewable Energy System, Energy Efficiency Grants: General Requirements

- Applicants must provide at least 50 percent of the project cost if applying for a grant only
- Applicants must provide at least 25 percent of the project cost if applying for loan
- But, if you get both, the grant + the loan cannot cover more than 75% of the total project cost
- All projects must have technical merit and utilize commercially available technology
- Energy efficiency projects require an energy audit



# Minimum, Maximum \$s, Renewable Energy System, Energy Efficiency Grants (50% cost-share)

## Renewable Energy System (RES) Grants:

- \$2,500 minimum. So total eligible project costs must be at least \$5,000 (was \$10,000)
- \$1,000,000 maximum. To get maximum total eligible project costs must be at least \$2 million

## Energy Efficiency Improvement (EEI) Grants:

- \$1,500 minimum. So total eligible project costs must be at least \$3,000 (was \$6,000)
- \$250,000 maximum. To get maximum total eligible project costs must be at least \$500,000

# Must Demonstrate Effect Project

- Demonstrate that the RES or EEI will operate or perform over the project's useful life in a reliable, safe, and a cost-effective manner
- Such demonstration shall address project design, installation, operation, and maintenance
- Can submit a separate EEI and REI in a given federal year (October 1-September 30)
- But an applicant can submit only one type of funding request (grant-only, guaranteed loan-only, or combined funding) for each project in a given Federal Fiscal Year

# Application Description

- The project's relationship to the applicant's operations. Describe how the proposed project fits into or operates separately from the applicant's overall business or agricultural production operation
- Describe how the applicant, at the time of application, award, and through the useful life, owns the project and owns or controls the site for the project
- Provide list of owners with their contact information and describe the relationships between applicants and other key entities (such as products exchanged). Include organization charts if available

# For projects with cost of \$200,000 or more

- Historical Financial Statements for the past three years
- Current Financial Statements
- Pro Forma Financial Statements (include assumptions)

# Project Information

- Project Description:
  - Detailed Description of technology and its purpose (e.g., energy replacement), project location (address), and specific site.
  - Describe utility relationships (e.g., net metering) and attach any rate paying agreements
- Project Construction and Equipment information
  - Describe how design, engineering, testing and monitoring are sufficient to meet project purpose, are safe and legal (including codes)
  - Describe how all equipment required is available and can be procured and delivered on schedule
- Commercially Available Equipment:
  - Detailed description of all major equipment to be installed and any applicable processes related to feedstock conversion
  - list recognized industry organization which certified renewable energy system equipment

# Project Economic Assessment

- Construction Item:
- Break down total project costs by providing a list of major equipment, labor costs, fees, and other costs associated with the project
- Provide useful life information on major system components
- Total Project Construction Costs
- Detailed bids may be attached to support total project costs
- should be the same as on Form SF-424C, “Budget Information-Construction Programs

# Total Project Costs

- Use total project costs on the form (sum of all costs associated with the completed project, including ineligible costs and regardless of the source of the funds)
- Wind Turbine as an example: must include all the costs associated with a completed project including the turbine, tower, foundation, and electrical.
- Total Project Costs for retrofitting an existing Renewable Energy System would include the costs associated with the modifications or replacement of the existing components. For example, if the tower is already in place but the turbine needs to be replaced, then the costs integral to the replacement of the turbine would be considered as Total Project Costs.



# Eligible Project Cost

- Purchase and installation of new or refurbished equipment
- Construction, retrofitting, replacement, and improvements
- EEI identified in the applicable energy assessment or energy audit
- Fees for construction permits and licenses
- Professional service fees for qualified consultants, contractors, installers, and other third-party services
- When a residence is closely associated with the rural small business or agricultural operation the installation of a second meter to separate the residence from the portion of the project that benefits the rural small business or agricultural operation

# Ineligible Project Cost

- Agricultural tillage equipment, used equipment, and vehicles
- Residential projects
- Construction or equipment costs that would be incurred regardless of the installation of project. For example, the foundation for a building where a RES is being installed, storage only grains bins connected to drying systems, and the roofing of a building where solar panels are being attached
- Business operations that derive more than 10 percent of annual gross revenue from gambling activity or operations deriving income from activities of a sexual nature or illegal activities
- Lease payments
- Any project that creates a conflict of interest or an appearance of a conflict of interest
- Funding of political or lobbying activities
- To pay off any Federal direct or guaranteed loans or other Federal debts

# Matching Funds

- Identify the amount of Matching Funds and other funds and the sources the Applicant is proposing to use for the project. Provide written commitments for Matching Funds and other funds at the time the application is submitted
- If your funds must demonstrate with bank statement
- If a third party is providing financial assistance to the project, the Applicant must submit a commitment letter signed by an authorized official of the third party. The letter must be specific to the project and identify the dollar amount being provided.
- Meaning: need a letter from your lender with all of the specifics (amount and terms of loan, stating loan is specifically for the project).

# Project Development Schedule, Equipment Procure-Install, Operation-Maintenance

- Schedule: Describe the overall project development method including how free and open competition will be met, include the key project development activities and the proposed schedule
- Equipment Procurement and Installation:
  - Describe the availability of required equipment, including procurement-delivery schedules
  - Describe site development and system installation, include any special equipment needs
- Operations and Maintenance:
  - including warranties, major rebuilds and component replacements necessary over system's useful life
  - Describe how the system will be monitored for performance

# Marketing Strategy for RES and Energy Generated or Saved

- If supplying others
- Marketing strategies to include a discussion on how the Applicant will be marketing and providing outreach activities to the proposed service area ensuring that Agricultural Producers and/or Rural Small Businesses are served
- Energy Generated or saved discussed in scoring

## Qualifications of the Project Team

Include information on all service providers, personnel and companies, that will be working to construct and install the project, such as: Energy Auditor, site assessor, contractor, installer, electrician, etc.)

# Your and Project Service Providers Experience

- Experience in completing similar activities, including the number of similar projects performed and the number of years performing a similar service
- Indicate relevant experience
- Discuss any Energy Audit Awards in last 5 years please describe achievements of the award (such as energy sold or saved)



# Any Prior REAP Projects

- an applicant who has received one or more grants under this program must have made satisfactory progress towards completion of any previously funded projects before being considered for subsequent funding.
- The Agency interprets satisfactory progress as at least 50 percent of previous awards being expended by January 31, 2024

# Energy Audit for EEI

- USDA does not maintain a list of qualified energy auditors
- Regulation do define the credentials for an auditor or assessor
- A good idea is to contact your local power company and have them set up TVA to do the audit
- All of the following qualify:
  - An Energy Auditor certified by the Association of Energy Engineers
  - An Energy Manager certified by the Association of Energy Engineers
  - A licensed Professorial Engineer in the state where the audit will be conducted with at least 1 year experience and who has completed at least 2 similar energy audits
  - An individual with a 4-year engineering or architectural degree with at least 3 years experience and who has completed at least 5 similar energy audits

# Must Include all Environmental Review Documents with supporting Documentation

- Recommend you first discuss this with the USDA field specialist (regional office)
- State office will have a checklist document
- Use that to work through the process
- Covers possible impacts on wetlands, trees, historic sites, endangered species, farmland, hazardous materials, state-federal parks, water resources, minority or low income populations, municipal wastewater, location in non-compliant air quality area
- USDA or Form will indicate additional documentation as needed
  - For example, if there threatened or endangered species or critical habitats within the project area, then a IPAC (Information of Planning and Consultation) report must be attached <https://ecos.fws.gov/ipac/>

**U.S. DEPARTMENT OF AGRICULTURE RURAL DEVELOPMENT**

7/29/20

**ENVIRONMENTAL INFORMATION**

The purpose of this document is to assist RD staff in collecting adequate information to determine what level of environmental review is necessary. Depending on the information provided, the Agency may request additional information. All answers need to be supported by appropriate documentation, check marks are not sufficient support. Potentially helpful links are provided in blue, these are not an exhaustive or comprehensive list of resources.

Yes

No

**1. APPLICANT NAME:****2 . ADDRESS: Physical location of the property (include legal description if farmland):****3. MAP.** Please provide an aerial map showing the building /lot/exact location for all project types, please indicate on map any potential trenching or other ground disturbance. electrical connections. or other relevant information. Is map attached?**4. DETAILED PROJECT DESCRIPTION** (Describe how proposed funds will be used. If project involves construction, whether interior or exterior or renovations, please describe in detail. For renewable energy systems such as solar panels be specific on type of system (fixed tilt, tracking, mounting & structure, i.e. ballasted, 3" pile driven, concrete, screws, etc.):**5. SIZE OF THE PROJECT & SITE:** Please indicate the size (acres) of your project and how the project will impact the site including roads, right of ways, utilities, or other impacts. Example: Renewable energy solar project should include sq. ft, linear ft, number of installed units/panels/buildings, and details regarding any trenching or ground disturbance to be completed.**6. Will the project involve construction without any ground disturbance? (i.e. roof mounted solar)****6a. If no ground disturbance, please provide land use, land ownership, & description (i.e. industrial, residential, wooded, grasslands, etc.).****6b. If ground disturbance is expected, provide descriptive info, including if the project site was previously disturbed (i.e. previous structure, excavation, cultivation).**

Award amount considerations. In determining the amount of a RES or EEI grant awarded, the Agency will take into consideration the following six criteria:

- The type of RES to be purchased
- The estimated quantity of energy to be generated by the RES
- The expected environmental benefits of the RES
- The quantity of energy savings from the EEI expected to be derived from the activity, as demonstrated by an Energy Audit;
- The estimated period of time for the energy savings generated by the activity in comparison to the cost of the activity
- The expected energy efficiency of the RES

# Project Scoring

REAP Grant Resources and Applications

Score Sheet

90 points

100 if special awards

# Project Scoring Specifics

<b>Points</b>	<b>Criteria</b>
25	Energy generated/replaced/saved
15	Previous recipient
15	Length of payback period
10	Commitment of matching funds
10	<b>Environmental benefits</b>
15	<b>Located in a Disadvantaged or Distressed Community</b>
10	<b>State Director/Administrator pts.</b>
100	Total



# Energy Saved or Replaced, Sub-Criteria 1: 10 Points

- 50,000 BTUs average annual energy generated or replaced per grant dollar requested, or higher, 10 Points will be awarded
- Less than 50,000 BTUs generated or replaced per grant dollar, BTUs per Grant \$ times 10:
  - 40,000 BTUs, asking for \$50,000
  - $40,000/\$50,000 = 0.8 \times 10 = 8$  Points

# Quantity of Energy Replaced, Generated, or Saved Sub-Criteria 2 (15 points)

- Replaced or Saved (BTUs)

Projected or Save Annual Energy Generated / Historical Annual Energy Consumption

1,000,000 BTUs / 2,000,000 BTUs = 50%

- Projected Energy Generated (RES)

- Greater than zero but less than 25%, 5 points
- Greater than 25% but equal to or less 50%, 10 points
- Greater than 50%, 15 points

- Projected Energy Saved (EEI)

- 20% up to but not including 35%, 5 points
- 35% up to but not including 50%, 10 points
- 50% or greater, 15 points

# Scoring Criteria Simple payback period: A maximum of 15 points

- EEI projects simple payback = (total project costs) ÷ (dollar value of energy saved).
  - Energy Saved: Historic energy consumed minus projected energy consumed
- RES projects = Total project costs / annual dollar value of energy units sold, credited, replaced or directly used and the fair market value of byproducts
  - Next slide idea of the form

2. Estimated Project Energy Generation or Savings and Cost of Energy. <i>The Agency may request additional information to substantiate energy quantity, units and rates if necessary:</i>	
a. For Renewable Energy Systems:	
<p>i. Annual amount of <b>renewable energy to be generated</b> and unit of energy:</p> <p>-<u>Attach</u> a renewable energy site assessment, or other documentation to validate the total amount of energy to be generated, including the quality and availability of the renewable resource to the project.</p>	<p>a. Total Estimated Generation: [REDACTED]</p> <p>b. Unit: kWh <input type="checkbox"/> or BTU <input type="checkbox"/> or <input type="checkbox"/> [REDACTED]</p>
<p>ii. Documented <b>use</b> (renewable energy sold, metered/credited, or for direct-use), unit of measurement, price per unit, dollar value, and name of utility/offtaker, as applicable.</p> <p>-<u>Attach</u> power purchase agreement to document quantity of energy sales and price/unit to be paid for energy.</p> <p>-<u>Attach</u> utility net metering, virtual net metering, energy crediting policies or agreements, or letter from utility which shows rate to be paid for excess energy.</p> <p>Direct Use Energy:</p> <p>-Must have at least 12 months of historical energy use to score as replacement. <u>Attach</u> at least 12 months of utility bills to document average historical price paid for direct use replacement energy ;</p> <p>When calculating the actual average price per unit of energy, only include energy charges directly reduced by the unit of energy being replaced or saved, e.g. do not include monthly service fees, demand or other charges if not directly reduced; or</p> <p>-<u>Attach</u> documentation of conventional energy price for direct use new construction or off-grid applications.</p>	<p>a. Energy Sold: [REDACTED]</p> <p>b. Unit: kWh <input type="checkbox"/> or BTU <input type="checkbox"/> or <input type="checkbox"/> [REDACTED]</p> <p>c. Price/Unit: \$ [REDACTED]</p> <p>d. \$ Value (a x c): \$</p> <p>e. Name of Utility/Offtaker: [REDACTED]</p> <p>a. Energy Metered/Credited: [REDACTED]</p> <p>b. Unit: kWh <input type="checkbox"/> or BTU <input type="checkbox"/> or <input type="checkbox"/> [REDACTED]</p> <p>c. Price/Unit: \$ [REDACTED]</p> <p>d. \$ Value (a x c):\$</p> <p>e. Name of Utility/Offtaker: [REDACTED]</p> <p>a. Direct Use Energy: [REDACTED]</p> <p>b. Unit: kWh <input type="checkbox"/> or BTU <input type="checkbox"/> or <input type="checkbox"/> [REDACTED]</p> <p>c. Price/Unit: \$ [REDACTED]</p> <p>d. \$ Value (a x c):\$</p>
<p>iii. <b>By-product/other revenue quantity</b>, description, unit of measurement, documented fair market price per unit, and dollar value:</p> <p>-Do not include government or utility incentives or</p>	<p>a. By-product/other revenue quantity: [REDACTED]</p> <p>b. Description: [REDACTED]</p>

# Simple Payback Point Scoring: RES

- Less than 10 years, 15 points will be awarded;
- 10 years up to but not including 15 years, 10 points will be awarded;
- 15 years up to and including 25 years, 5 points will be awarded; or
- Longer than 25 years, no points will be awarded.

# Simple Payback Point Scoring: EEI

- Less than 4 years, 15 points will be awarded;
- 4 years up to but not including 8 years, 10 points will be awarded;
- 8 years up to and including 12 years, 5 points will be awarded; or
- Longer than 12 years, no points will be awarded.

# Previous Recipient, 15 Points

- Never received REAP Grant or loan, 15 points
- Have received either but NOT in the last 2 Federal Fiscal Years, 5 points
- Have received either in the last 2 Federal Fiscal Years, 0 points

# Commitment of Funds for the Total Project 10 points

- Confirmed written commitments as part of the application
- Commitment = Total project cost minus REAP Grant and Loan Request
- If the Applicant proposes to match 100% percent or more of the grant funds requested, 10 points will be awarded
- If the Applicant proposes to match 50% percent or less of the grant funds requested, 0 points will be awarded
- If the Applicant proposes to match 50% percent or more but less than 100% of the grant funds requested, use the following formula:
- $(\text{Percent Match} - 50\%) / 50\% \times 10$  points
- Request, \$40,000, total project \$100,000; So percent match = 60%
- $60\% - 50\% = 10\% / 50\% = 0.2 \times 10 = 2$  POINTS



# Environmental score: Maximum 10 points

- Does not produce greenhouse gases 5 points
- Does not convert farmland, 1 point
- Does not contribute to deforestation or addresses fire hazards on forest lands, 1 point
- Documented water conservation, 1 point
- Complies with EPA's renewable fuel standards, 1 point
- At least 25% of project components are bio-based, 1 point

# Located in a Disadvantaged or Distressed Community: 15 points

- Distressed Community Index (DCI) Zip Code (ZCTA) or Climate and Environmental Justice 40 (CEJST40) Disadvantaged Community
- <https://ruraldevelopment.maps.arcgis.com/apps/webappviewer/index.html?id=4acf083be4c44bb7864d90f97de0c788>
- Green area (Distressed)
- Blue area (Disadvantaged)
- Orange (Tribal)



# Locations of Distressed and Disadvantaged Communities

Data Analytics Team, Rural Development's Innovation Center

Find address or place

Murray

Fort Donelson National Battlefield

Clarksville

Gallatin

Lebanon

Nashville

Dickson

Franklin

Murfreesboro

Spring Hill

Columbia

Shelbyville

Tullahoma

Shiloh National Military Park

Chattanooga

Cumberland Plateau

### Layer List

Layers

- Distressed Community Index - (Distressed Community Index score above 80)
- Puerto Rico Distressed Community Index
- Disadvantaged Community (All categories from the Climate and Environmental Justice Screening Tool)
- Disadvantaged Community Alaska Native Village Statistical Areas
- Disadvantaged Federally Recognized Tribal Areas -BIA

Cannon County, Tennessee tract  
47015960100 Population: 4,081

This tract is identified as disadvantaged. It has 3 categories that meet the criteria.

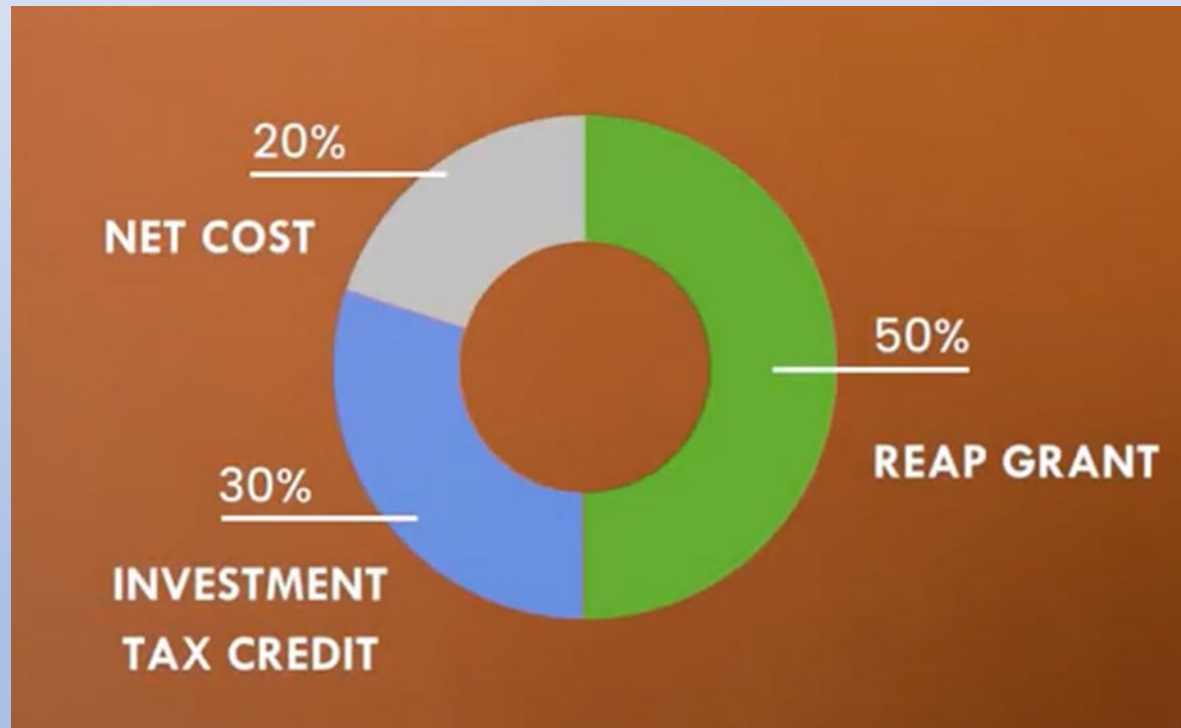
- Climate Change
- Housing
- Transportation

There are 2 disadvantaged tracts in Cannon County and 696 disadvantaged tracts in Tennessee.

Details on the eight possible categories are in the set of charts below:

[Zoom to](#)

One More Item: Investment Tax Credit: 30% of project cost: Can use or sale (if sold can be part of your match)







Questions, Comments,  
Thank You!  
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Real. Life. Solutions.

**UT EXTENSION**  
INSTITUTE OF AGRICULTURE  
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