



Hydro Power Producers

Getting Your REAP Grant Funded
Key Tips Every Applicant Must Know

What is an unrestricted grant?

To ensure that small projects have a fair opportunity to compete for the funding and are consistent with the priorities set forth in the statute, the Agency will set-aside not less than 20 percent of the FY 2020 funds until June 29, 2020, to fund grants of \$20,000 or less.

Program	2019 Funds Available	Funds Obligated
9007 REAP Unrestricted Grant	\$29,035,000	\$24,595,173
9007 REAP – Less than \$20K Grant	\$9,380,000	\$9,374,072

REAP ~ Eligibility

Eligible Applicants

Agricultural Producer



- **Individual or entity that receives 51 percent or more of their gross income from agricultural production** – crops, livestock, aquaculture, forestry operations, nurseries, dairies















Rural Small Business



- **For-profit small business** - as defined by the Small Business Administration (SBA)
- **Rural area or non-metro community of $\leq 50,000$**

REAP ~ Eligibility

Eligible Technologies

Energy Efficiency		Renewable Energy	
	Lighting		Solar
	Heating		Wind
	Cooling		Small Hydroelectric
	Ventilation		Anaerobic Digesters
	Fans		Biomass
	Automated Controls		Geothermal
	Insulation		Wave/Ocean Power

REAP ~ Eligibility

Project Cost Considerations

✓ Eligible Project Costs

- **Equipment:**
 - Purchase & installation
 - New or refurbished
- **Post-application construction & facility improvements**
- **Retrofitting**
- **Professional service fees**
- **Permits & license fees**
- **Working capital, land acquisition (Guarantee loan ONLY with restrictions)**

⊘ Ineligible Project Costs

- **Residential energy projects**
- **Equipment:**
 - Farm tillage equipment
 - Used equipment
 - Vehicles
- **Pre-application construction & facility improvements**
- **Application preparation or grant writer fees**
- **Line of credit**
- **Lease payments**
- **Payment to the applicant/business owner, beneficiary, or relative**

Renewable Energy System: Hydropower



Hydropower Turbine

11 kW micro-hydropower turbine



- \$78,511 Total Cost
- \$19,695 REAP Grant
- \$58,816 Applicant Funds

51% reduction in energy costs

State Allocations

FY 2020 REAP Grant Allocations	Preliminary as of 2/18/20	
	\$20,000 or Less	Unrestricted
Alabama	\$238,000	\$1,023,000
Alaska	\$132,000	\$432,000
Arizona	\$168,000	\$629,000
Arkansas	\$191,000	\$763,000
California	\$223,000	\$939,000
Colorado	\$148,000	\$522,000
Connecticut	\$136,000	\$454,000
Delaware	\$128,000	\$408,000
District of Columbia	\$100,000	\$250,000
Florida	\$219,000	\$918,000
Georgia	\$261,000	\$1,156,000
Hawaii	\$135,000	\$446,000
Idaho	\$141,000	\$478,000
Illinois	\$177,000	\$684,000
Indiana	\$191,000	\$761,000
Iowa	\$157,000	\$571,000
Kansas	\$149,000	\$525,000
Kentucky	\$239,000	\$1,030,000
Louisiana	\$189,000	\$747,000
Maine	\$156,000	\$566,000

RD Instruction 1940-L

Ask about your
state's allocation
amount

REAP Funds for your Small Hydro Project



For Renewable Energy Systems

Minimum Grant Request

\$2,500
Total eligible project costs \geq \$10,000

Maximum Grant Request

\$500,000
Total eligible project costs \geq \$2 million

Producing
renewable
energy
yields
points

**A score of 85 Points gives you the most
competitive score possible**

				RD Instruction 4280-B
				Appendix E
Revised 4/1/2018				
Rural Energy for America Program				
Renewable Energy Systems and Energy Efficiency Improvement				
Evaluation Criteria Scoring Guide				
				Post Review by:
Name of Applicant:	Moon Lake Hydro			
Name of Reviewer:	Fred Flow			
Type of Technology:	Small Hydro			
Grant Request:	\$	20,000.00		
Loan Request:	\$	40,000.00		
Total Project Cost:	\$	80,000.00	Eligible Project Cost: \$ 80,000.00	
	Base Priority Score	Administrative Points	Total Grant/ComboScore	Total Loan Only Score
Energy Generation	85.00	0.00	85.00	

REAP adds points in this area based on the amount of energy saved or created related to grant dollars requested, it seeks to find and reward effective use of funds. Therefore, asking for a small grant may help your score.

Sub-Criteria i: Quantity of Energy Generated or Saved per REAP Grant or Loan Dollar Requested (10 points max.)

For RES and EEI projects, points will be awarded for either the amount of energy generation per grant or loan dollar requested, which includes those projects that are replacing energy usage with a renewable source, or the actual annual average energy savings over the most recent 12, 24, 36, 48, or 60 consecutive months of operation per grant or loan dollar requested; points will not be awarded for more than one category.

(A) Renewable Energy Systems

Projected Annual Energy Generated (EG) in BTU's:	1,706,000,000	EG/Grant Dollar (G or Combo): (Auto-Calculates)	85,300.00	
				Points
(1) Less than 50,000 BTU per		Auto Calculates (EG/\$) /		10.00
		EG/Loan Dollar	42,650.00	
		(Auto-Calculates)		
OR				

Appendix E

1B. Energy Generation

Proposed System	Amount of Energy Proposed to be Generated			BTU Value	\$ Value of Energy per Unit	Gross Income from Energy Sale		
Solar		kwh		0		0		
Wind		kwh		0		0		
Geothermal		kwh		0		0		
Biomass		kwh		0		0		
Hydrogen		kwh		0		0		
Hydro-electric	500000	kwh		1706000000	0.04	20000		
Ocean		kwh		0		0		
Ethanol		gal		0		0		
Biodiesel		gal		-		-		
Total	500,000.00			1,706,000,000.00		20000		



Get maximum
Environmental
points

Reduces
Fossil Fuel
Use,
Improves Air
Quality, and
Improves
Public
Health

Environmental Benefits of Hydro Electric Power

- The energy generated through hydropower relies on the water cycle, which is driven by the sun, making it a renewable power source, making it a more reliable and affordable source than fossil fuels that are rapidly being depleted.
- [Impoundment hydropower](#) creates reservoirs that offer a variety of recreational opportunities, notably fishing, swimming, and boating. Most water power installations are required to provide some public access to the reservoir to allow the public to take advantage of these opportunities.
- Some hydropower facilities can quickly go from zero power to maximum output. Because hydropower plants can generate power to the grid immediately, they provide essential back-up power during major electricity outages or disruptions.
- In addition to a sustainable fuel source, hydropower efforts produce a number of benefits, such as flood control, irrigation, and water supply.

Get maximum
Environmental
points

(2) Environmental benefits

A maximum of 5 points will be awarded for criterion 2.

Points are awarded based on whether the Applicant has documented in the application that the proposed project will have a positive effect on any of the three impact areas: resource conservation (e.g., water, soil, forest), public health (e.g., potable water, air quality), and the environment (e.g., compliance with EPA's renewable fuel standard(s), greenhouse gases, emissions, particulate matter). Points will be awarded as follows:

(i) If the proposed project has a positive impact on any one of the three impact areas, Award 1 point.

(ii) If the proposed project has a positive impact on any two of the three impact areas, Award 3 points.

(iii) If the proposed project has a positive impact on all three impact areas, Award 5 points

Points

5

Provide documentation to substantiate the score for this category below.

1. Resource Conservation - With a constant flow of water, hydro is a natural renewable energy source which limits the use of other resources.

2. Public Health - Hydropower does not contribute to air, land, or water pollution. Recreational benefits are often provided by reservoirs.

3. The Environment - Hydropower efforts produce a number of benefits, such as flood control, irrigation, and water supply. Hydro plants have limited emissions or particulate matter and play a key role in generating renewable clean energy.

Document Equity & Loan Commitments

Earn Easy Points

(3) Commitment of Funds

A maximum of 20 points will be awarded for criterion 3.

If the applicant has written commitments, received by the Agency as part of the complete application, from the source(s) confirming commitment of:

Commitment Needed	\$20,000	Commitment Provided	\$20,000	
(i) 50% or less, award 0 points.				Points 20
(ii) Over 50% but not including 100% of the commitment needed, calculate the points as:				
Percentage of Committed Funds Provided (Auto-Calculates)	1.00	(PM-50% / 50% x 20 points) <i>Auto-Calculates Points</i>	20.00	
(iii) 100%, award 20 points.				

Don't be shy...Apply!



Provide additional documentation (if applicable) to substantiate the score for this category below.

(5) Previous Grantees and Borrowers

A maximum of 15 points will be awarded for criterion 5.

	Points
(i) If the Applicant has never received a grant and/or guaranteed loan under this subpart, Award 15 points	15
(ii) If the Applicant has not received a grant and/or guaranteed loan under this subpart within the 2 previous Federal Fiscal Years, Award 5 points	
(iii) If the Applicant has received a grant and/or guaranteed loan under this subpart within the 2 previous Federal Fiscal Years, Award 0 points.	

Provide documentation to substantiate the score for this category below.

Never received funds from REAP? Get 15 Points!

Appendix E

6. Simple Payback

Total Project Costs	80,000.00					
			Income Calculation:			
Total Eligible Project Costs	80,000.00		Gross Income:			
			Energy Sales		20,000.00	
Dollar Value of Energy Saved (EEI)	0		Other Income (byproducts)			
			Operating and Maintenance		2,475.00	
Dollar Value of Energy Replaced	0.00		EBITDA		17,525.00	
Dollar Value of Energy Sold	20000					

- Grants are competitive
- Advantages go to the best scoring applications



A Short Payback Period Scores Big!

A payback period of less than ten years will get maximum points in this category

A maximum of 15 points will be awarded for criterion 6.

Points will be awarded for renewable energy systems or energy efficiency improvements; points will not be awarded for more than one category.

(i) Renewable energy systems

(A) Energy Generation for Use Offsite: Simple Payback = (Eligible project costs) / ((Typical year) Earnings before interest, taxes, depreciation, and amortization (EBITDA) for the project only). *EBITDA is based on all energy and byproduct related revenue streams for a typical year including the fair market value of byproducts produced and used in the project or related enterprises; income remaining after all project obligations are paid (O&M); Agency's review of projections (after operating and stabilized) ; does not include tax credits, carbon credits, RECs and construction or investment related benefits:*

Eligible Project Costs (Auto Calculates from page 1):	\$80,000	Annual O&M Cost	\$2,475	5.32
Total Income:	\$17,525			

If the simple payback of the proposed project is:

(1) Less than 10 years, award 15 points.	Points 15
(2) 10 years up to but not including 15 years, award 10 points.	
(3) 15 years up to and including 25 years, award 5 points.	
(4) Longer than 25 years, award 0 points.	

Provide documentation to substantiate the score for this category below.



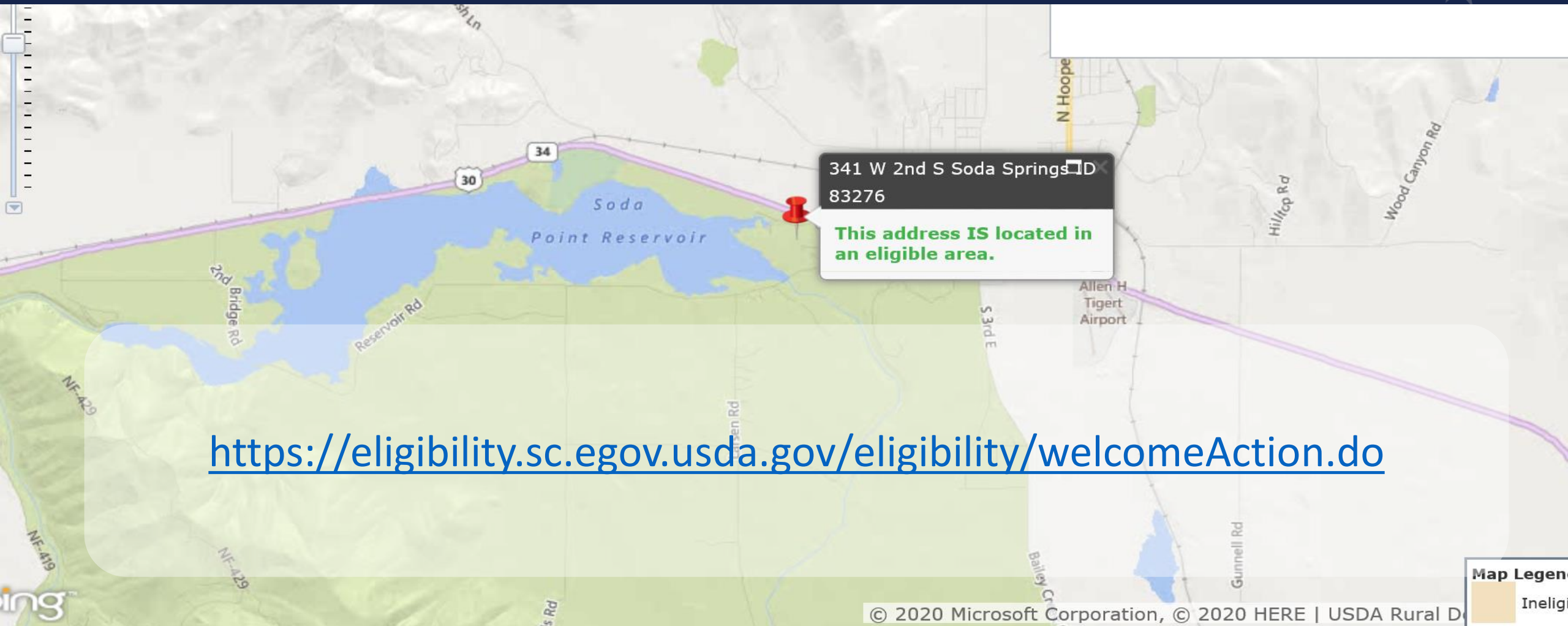
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83276

- Rural Eligibility is a Project must be in an area OTHER THAN a town with a population greater than 50,000 inhabitants including the urbanized area of the town.
- Size definitions apply. Eligible REAP applicants are small businesses. Use SBA NAICS Code for standards

Your **State Rural Development Energy Coordinators** can be found at:

<https://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency> and click on Contact.

Tools to help you find eligible areas



<https://eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do>

Agencies of Rural Development

Rural Utility Service

- **Electric**
- **Water & Environmental**
- **Telecommunications**

Rural Housing Service

- **Single Family**
- **Multi Family**
- **Community Programs**

Rural Business-Cooperative Service

- **Business Loan Guarantees**
- **Energy Loan Guarantees & Grants**
- **Direct Loan and Grant Programs**
- **Cooperative Development & Support**

Loan Guarantees

Rural Energy for America Program (REAP)

Renewable Energy Systems (RES) or energy efficiency improvements (EEI).

Rural small businesses (must be rural) and Ag producers (any location).

Grant up to 75% of project costs not to exceed \$25 million. May combine with grant.

Business and Industry Guaranteed Loan Program (B&I)

Create jobs/stimulate rural economies by providing financial backing for rural businesses. Used for real estate, buildings, equipment, supplies, working capital and some debt refinancing. Must be rural.

Grants

Rural Energy for America Program (REAP)

Renewable Energy Systems (RES) or energy efficiency improvements (EEI).

Rural small businesses (must be rural) and Ag producers (any location).

Grant up to 25% of project costs not to exceed \$500,000 for RES or \$250,000 for EEI.

Grants and Loan Guarantees

Program	Funding Type	Funding FY 2020	Award	FY 2020 Application Due Dates
REAP	Grant & Loan Guarantee	\$504M	RES: \$2500-\$500K EEI: \$1500-\$250K Loans: \$5K - \$25M	Grants \$20K or Less: 10/31/19 & 3/31/20 Unrestricted (\$20K+): 3/31/20 Loans: Continuous
B&I	Loan Guarantee	\$1.356B	Loan Guarantee: 80%: \$1 - \$5M 70%: \$5M - \$10M 60%: \$10M+ -\$25M	Continuous

By the numbers, B&I is a loan only program. More funding is available and it is for tangible balance sheet equity companies, not for start ups. REAP can do a new project and can offer small to large grants.

REAP ~ Due Dates

REAP FY 2020 Application Priority Deadlines

October 31, 2019	<ul style="list-style-type: none">➤ Set Aside Fund Competition-Grant Request \$20,000 or less
January 31, 2020	<ul style="list-style-type: none">➤ EA/ REDA Grant applications
March 31, 2020	<ul style="list-style-type: none">➤ Set Aside Fund Competition-Grant Request \$20,000 or less➤ Grant Request > \$20,000➤ Combination Grant/Loan Request➤ Grant Request \$20,000 or less not competing for set aside
Continuous Application Cycle	<ul style="list-style-type: none">➤ Guaranteed Loans <p>*Loan must score a minimum of 40 points to compete for funding</p>

EA REDA ~ Who and What

EA/REDA Grants

What does this program do?

Grantees assist rural small businesses and agricultural producers by conducting and promoting:

1. Energy Audits (EA)
2. Renewable Energy Development Assistance (REDA)
 - Improve energy efficiency
 - Implement Renewable Energy technologies

Who may apply?

- State and local governments
- Federally-recognized Tribes
- A land-grant college or university, or other Institutions of Higher Education
- Rural electric cooperatives
- Public power entities
- An Instrumentality of a state, tribal, or local government

Definitions

Energy Audit

A comprehensive report prepared by an Energy Auditor (or an individual supervised by an Energy Auditor) that documents:

- Current energy usage
- Recommended potential improvements
- Costs of recommended improvements
- Energy savings from recommended improvements
- Dollars saved per year
- Simple Payback.

Renewable Energy Development Assistance

Assistance provided to Agricultural Producers and Rural Small Businesses to become more energy efficient and to use Renewable Energy technologies and resources.

The Renewable Energy Development Assistance may consist of Renewable Energy Site Assessment and/or Renewable Energy Technical Assistance.

EA REDA Eligible Applicants



Unit or Instrumentality of State, Tribal, or Local Government



Land Grant College, University, or other Institution of Higher Education



Rural Electric Cooperative



Public Power Entity



A Resource Conservation and Development (RC&D)

Energy Audit Grants and Renewable Energy Assistance

An opportunity to get funding
to find eligible opportunities
for energy efficiency and
renewable energy assistance

SW AK Municipal Con	\$100,000
The University of Alabama	\$60,000
The CSU, Chico Research Foundation	\$50,000
Connecticut RC&D Area, Inc.	\$88,000
Hoosier Energy Rural Electric Coop.	\$25,000
University of Kentucky Research Foundation	\$99,976
Michagan State University	\$100,000
University of MN	\$100,000
Southeast Missouri Regional Planning	\$42,011
Mountain Valleys RC&D Council, Inc.	\$100,000
North Carolina Electric Membership Corp.	\$100,000
Nevada System of Higher Education	\$100,000
Southeast Ohio Public Energy Council	\$98,832
Oregon Trail Electric Cooperative, Inc.	\$80,000
University of Oregon	\$100,000
Saint Francis University	\$100,000
City of Mineral Wells	\$100,000
Texas A&M University - Kingsville	\$33,433
Vermont Electric Cooperative, Inc.	\$98,748
Snohomish Conservation District	\$100,000
Orcas Power & Light Cooperative	\$100,000
Lower Valley Energy, Inc.	\$100,000

Renewable Energy Site Assessment

A report to an Agricultural Producer or Rural Small Business providing information regarding and recommendations for the use of Commercially Available Renewable Energy Technologies in its operation.

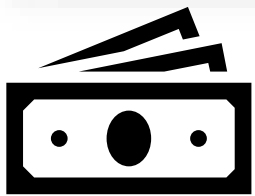
- Project description
- Resource assessment
- Project economic assessment

Renewable Energy Technical Assistance

Assistance provided to Agricultural Producers or Rural Small Businesses on how to use renewable energy technologies and resources in their operations.

- Specific to an operation
- Not an industry report

Energy Audits and Renewable Energy Development Assistance



There is 25% cost share for Energy Audits

Irrigation & Grain Dryers



Energy efficient glass roof, radiant heat, fans, vents, & computerized controls



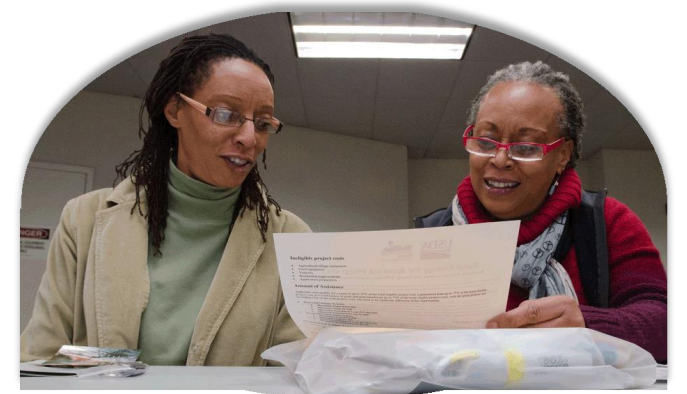
- \$38,870 Total Cost
- \$11,870 REAP EA Grant
- \$17,282 Applicant Contribution
- \$9,718 Recipient Contribution



- \$6,312 in Expect Annual Energy Savings

How to Apply

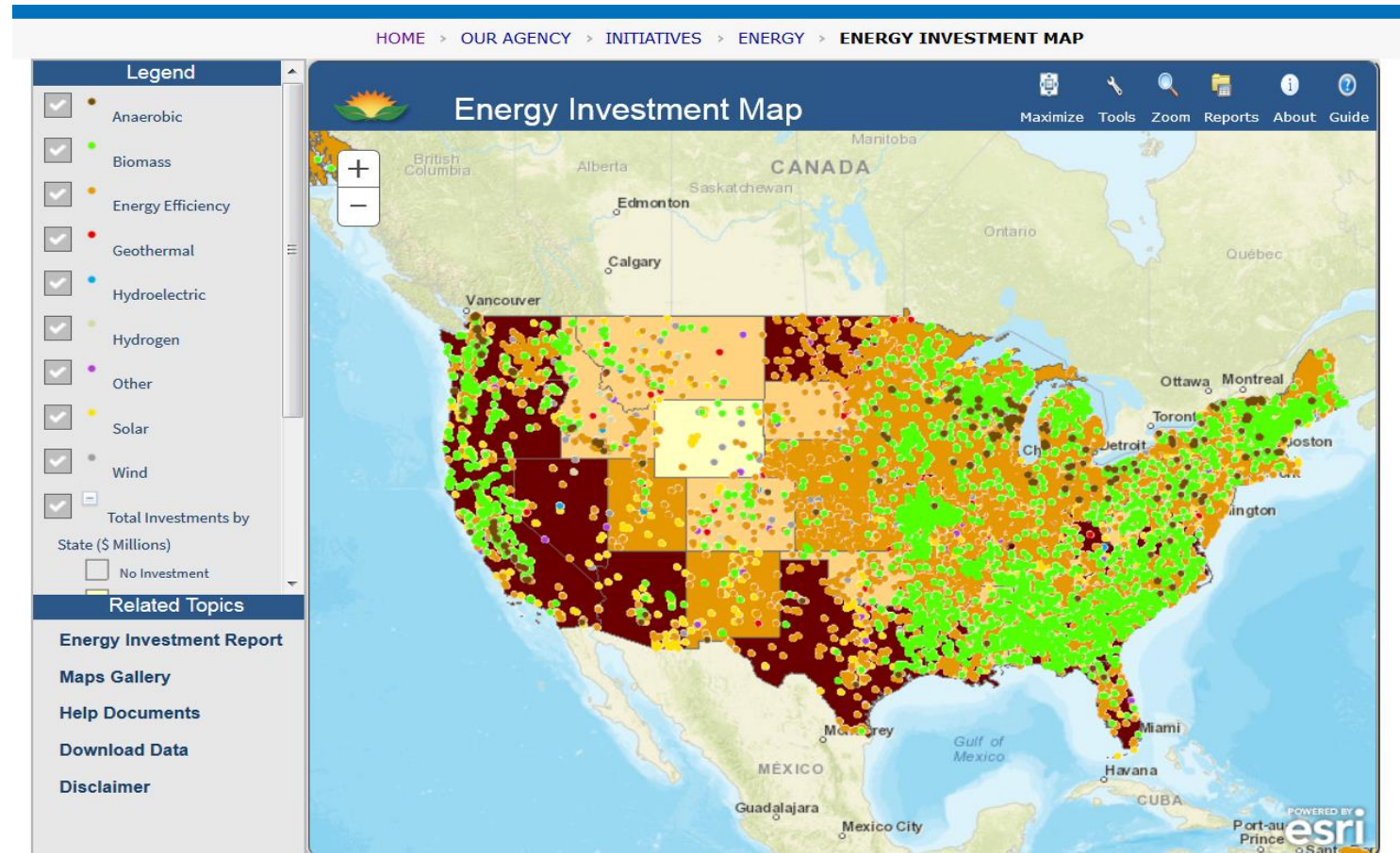
- Contact the USDA Rural Development Energy Coordinator in your state for application materials and resources:
<https://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency>
- Submit applications any time of year.
- Applications compete for funding based on score throughout the year.



USDA Energy Investment Map

<https://www.usda.gov/energy/maps/maps/Investment.htm>

- Provides information on USDA programs that support renewable energy and energy efficiency projects.
- The map displays investment location, type of energy, assistance provided and the associated USDA program.
- The energy investment data is summarized by state, county and congressional districts by total number of investments and total dollar amounts.





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