



United States
Department of
Agriculture

Rural Development



Presented by:

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**E-Connectivity, Distributed Energy Resources
& Energy Efficiency in Rural America
Financing Options**

*ACEEE Rural Energy Conference
Georgia Tech
October 22, 2018*

USDA - An Overview

- The United States Department of Agriculture (USDA) was established on May 5, 1862 by President Abraham Lincoln.
- USDA estimated annual Budget is \$140 Billion
- USDA has impact:
 - American agriculture (domestic and internationally),
 - Driver and investment in economic growth,
 - Innovative research and development,
 - conserve natural resources
 - promote healthy families
 - build stronger communities



USDA – Leadership and Charge

USDA Secretary Sonny Perdue's Motto:

“Let's do right and feed everyone”



- OneUSDA: Comprised of 7 Mission Areas and 17 Agencies

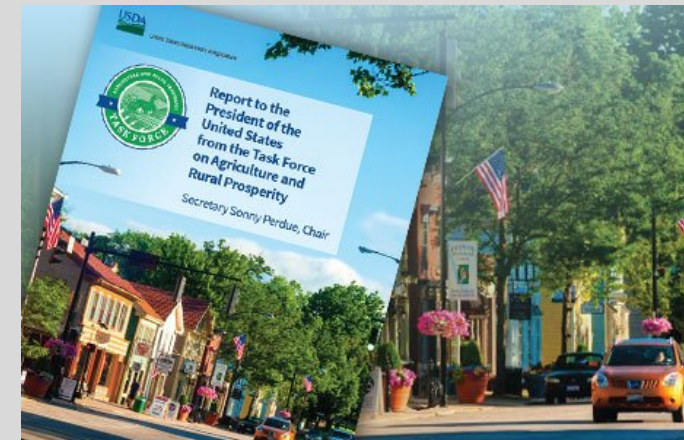


Interagency Task Force on Agriculture and Rural Prosperity



- Established in April 2017 by Executive Order
- Chaired by USDA Secretary Sonny Perdue
- Membership includes over 20 federal agencies and partners
- Report was published October 2017

<https://www.usda.gov/ruralprosperity>

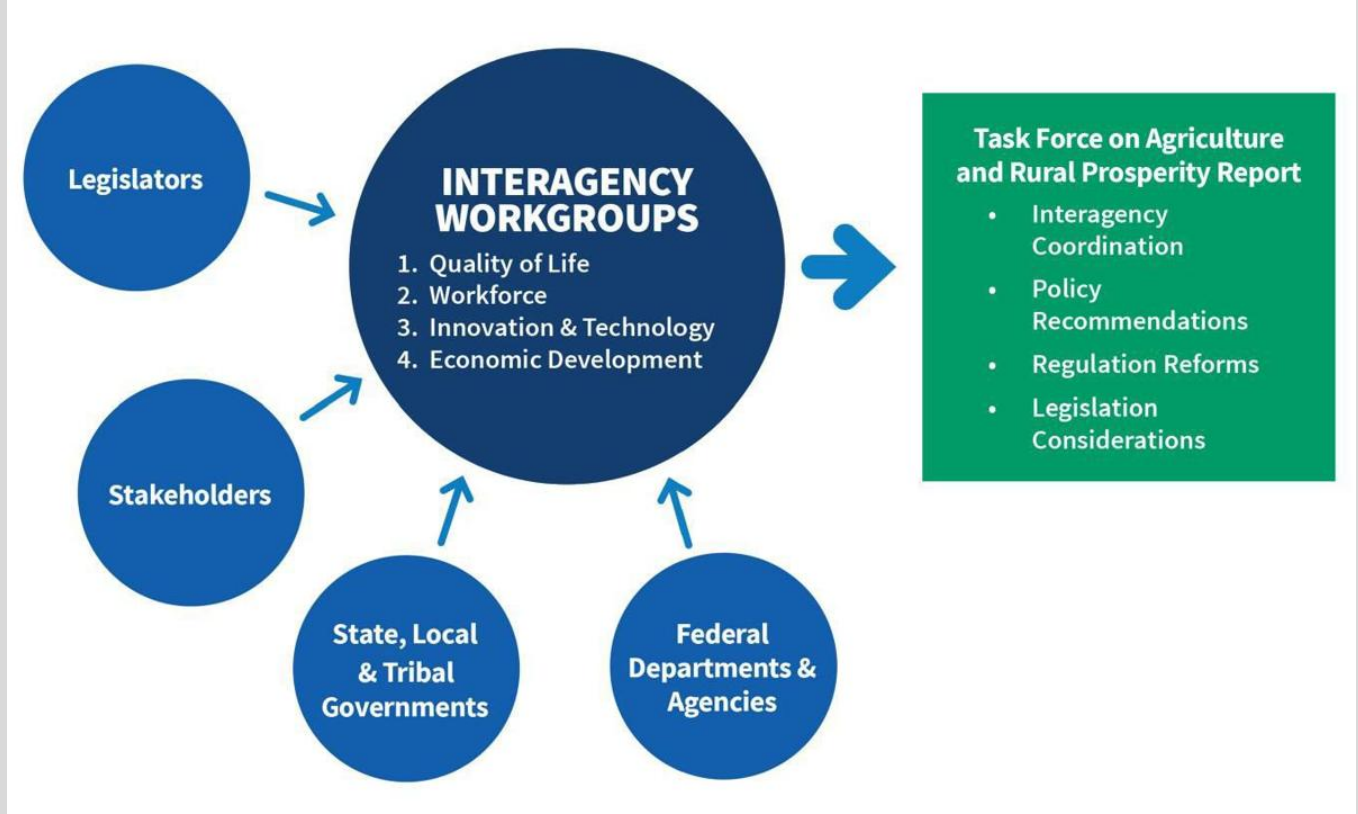


Interagency Task Force on Agriculture and Rural Prosperity



TASK FORCE ON AGRICULTURE AND RURAL PROSPERITY

- Improve Quality of Life
- Remove Excessive Regulation
- Preserve Family Farms
- Invest in Infrastructure
- Rely on Science, Technology & Innovation
- Diversify Energy Supply
- Supply Reliable Workforce
- Promote Job Growth



USDA Rural Development is key partner in U.S. Infrastructure expansion

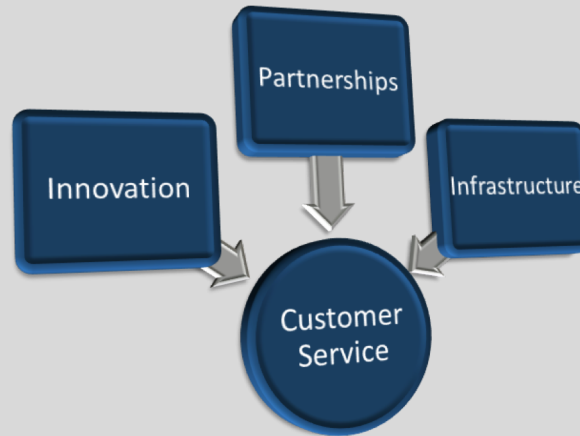
- **1901 to 1926** | Cooperative Programs Evolves for Rural Businesses
- **1935** | Rural Electrification Administration
- **1937** | Water Facilities Act
- **1949** | The Housing Act (Establishes Single- and Multi-Family Affordable Housing)
- **1949** | Rural Telephone Program
- **1968** | The Self Help Housing Program is Established
- **1990** | Distance Learning/Telemedicine Program
- **1994** | Restructuring: REA Plus Water and Waste Programs

Every five years Congress sets direction for RD in the Farm Bill

- **2002** | U.S. Farm Bill: Broadband Program, 9006 Renewable Energy Program, Value-Added, and Others
- **2009** | American Recovery and Reinvestment Act of 2009. Additional (one-time) funding for water and broadband infrastructure
- **2014** | U.S. Farm Bill: Broadband Program, Renewable Energy Programs, Value-Added, and Others

Rural Development's Roles

- Rural Development is committed to helping improve the economy and quality of life in rural America through



- Investing financial resources and providing technical assistance to businesses located in rural communities.
- Establishing strategic alliances and partnerships that leverage public, private, and cooperative resources to create jobs and stimulate rural economic activity.
- Increasing access to capital in rural America.
- In 2016, RD's investment portfolio was nearly \$216 Billion



Interagency Task Force on Agriculture and Rural Prosperity

Task Force on Agriculture and Rural Prosperity Report

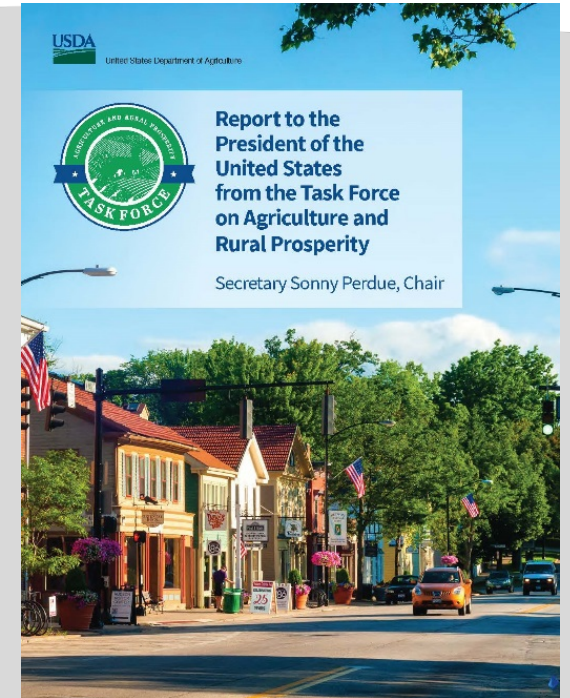
- www.usda.gov/sites/default/files/documents/rural-prosperity-report.pdf

Calls to Action:

1. Achieving e-connectivity for Rural America
2. Improving Quality of Life
3. Supporting a Rural Work Force
4. Harnessing Technological Innovation
5. Developing the Rural Economy

More information

- www.usda.gov/ruralprosperity

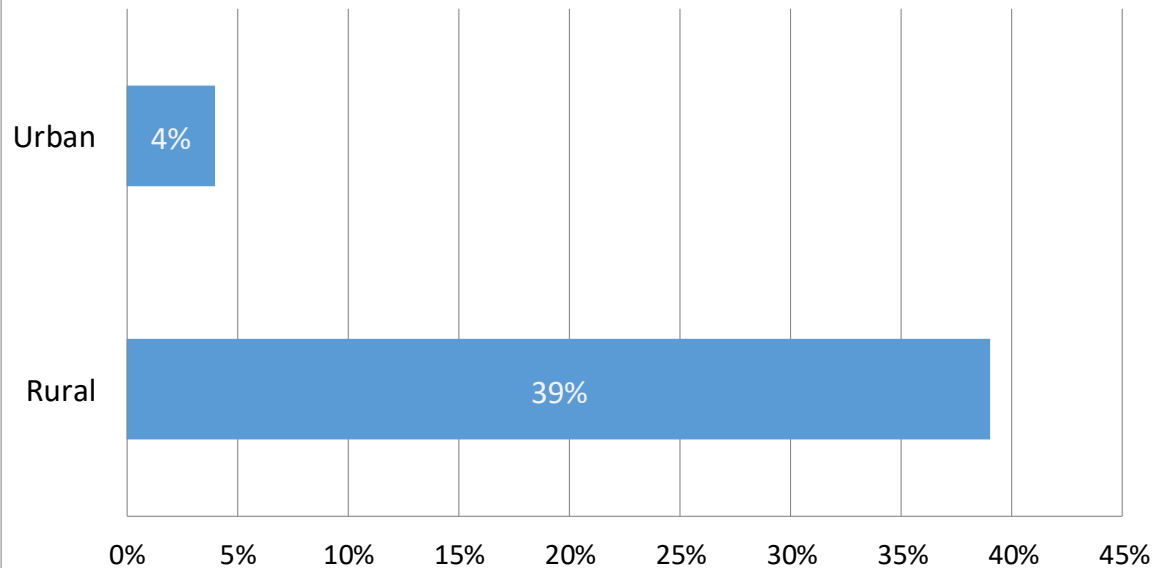


Objectives & Recommended Actions:

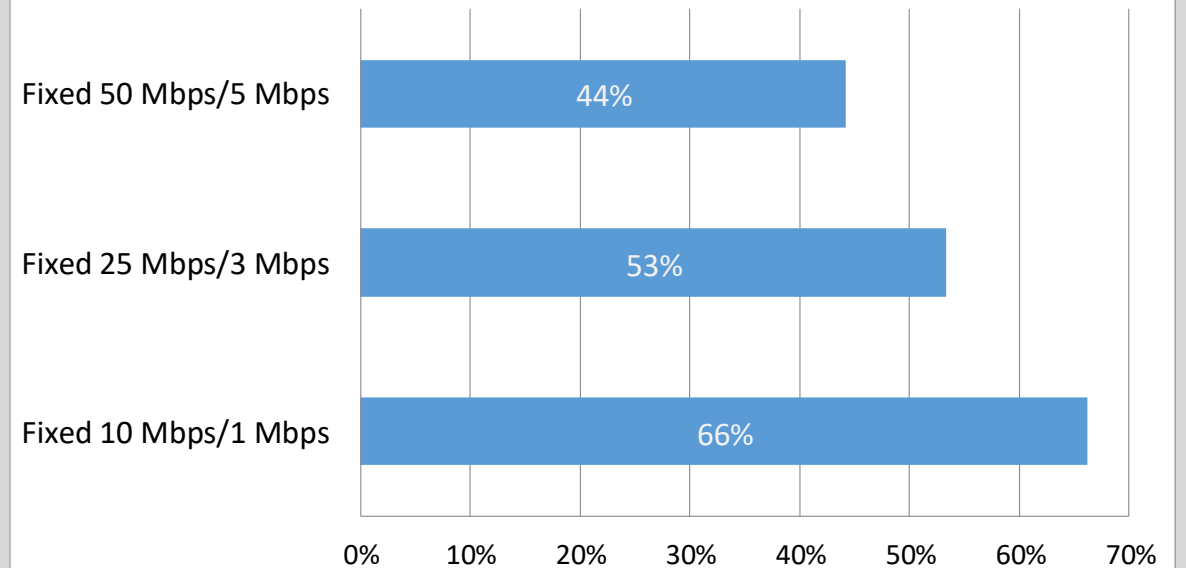
1. Establish Executive Leadership to Expand E-connectivity Across Rural America
2. Assess State of Rural E-connectivity
3. Reduce Regulatory Barriers to Infrastructure Deployment
4. Assess Efficacy of Current Programs
5. Incentivize Private Capital Investment

Broadband availability & adoption, FCC

**% Of Persons Not Covered By
25 Mbps/3 Mbps service
FCC, 2015 Data**



**Overall Adoption Rate for Fixed Terrestrial
Services
FCC, 2016 Data**



Ref: <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2016-broadband-progress-report>
<https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>

Strategic Objective & Goal

1. Ensure USDA programs are delivered efficiently, effectively, and with integrity and a Focus on customer service.
2. Maximize the ability of American agricultural producers to prosper by feeding and clothing the world.
3. Promote American agricultural products and exports.
4. Facilitate rural prosperity and economic development.
5. Strengthen the stewardship of private lands through technology and research.
6. Foster productive and sustainable use of our National Forest System lands.
7. Provide all Americans access to a safe, nutritious and secure food supply.



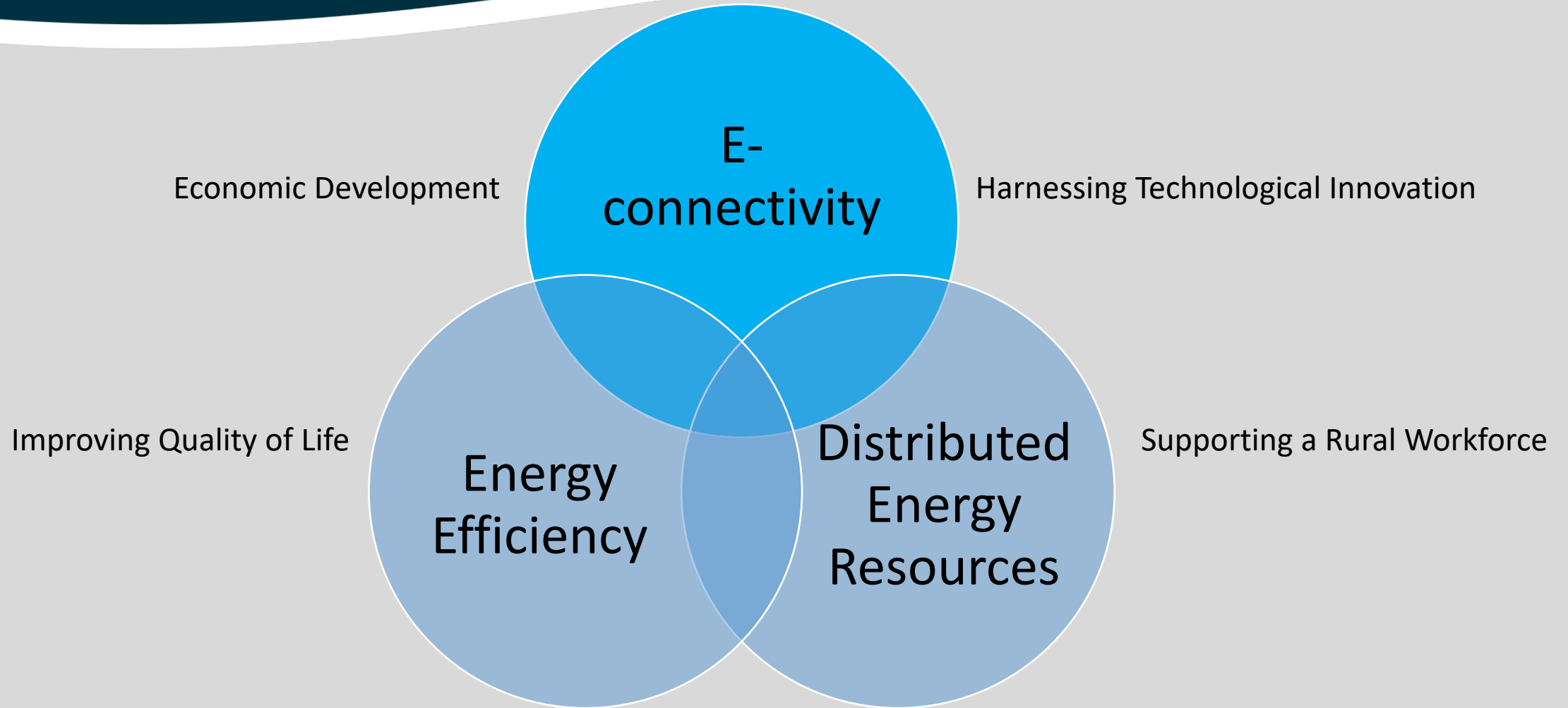
“To expand rural business opportunity and rural quality of life with access to capital; improve infrastructure, broadband access and connectivity; and support workforce availability”

Expanding Broadband in Rural America: E-Connectivity Pilot Program

- A **new broadband e-connectivity pilot program** was included in the FY 2018 budget signed by the President on 03/23/2018
- \$600,000,000, to conduct a broadband loan and grant pilot program
- Lacking sufficient access to broadband - no existing service to the household at 10 mbps download /1 mpbs upload service.
- **Eligible service area** - proposed funded service area where 90% of the households to be served do not have sufficient access to broadband
- Rural area - any area not located within: (1) a city, town, or incorporated area that has a population of greater than 20,000 inhabitants; or (2) an urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants
- Funding to cover cost of construction, improvement, and acquisition of facilities & equipment for broadband services in eligible communities.



Infrastructure, Partnerships & Innovation in Action

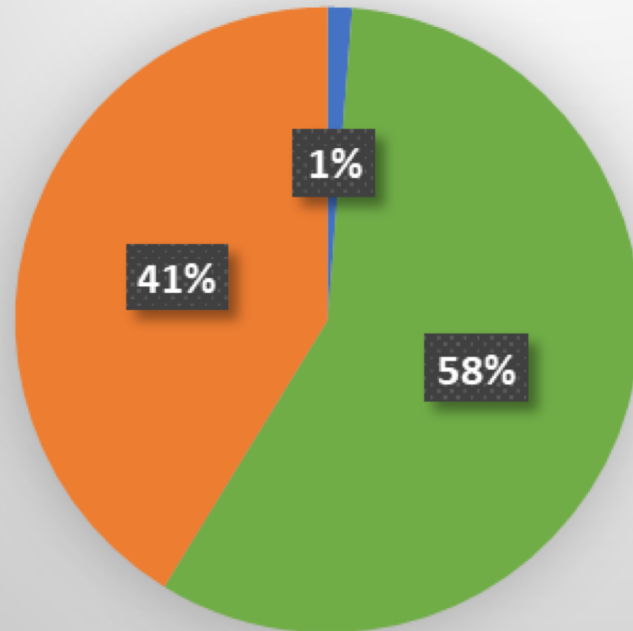


Rural Energy for America Program (REAP)

Rural Energy for American Program (REAP) provides Grants and Guaranteed Loan funding for Renewable Energy System Installations and Energy Efficiency Improvements for Agriculture Producers and Rural Small Businesses

REAP Funding Distribution

REAP FY2009 - FY2017 Projects by Type



- Energy Audit/ REDA
- Energy Efficiency
- Renewable Energy Sys

REAP Eligibility – 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 Grant Funding

 Renewable Energy Systems		 Energy Efficiency Improvements	
Minimum Grant Request	\$2,500 Total eligible project costs \geq \$10,000	Minimum Grant Request	\$1,500 Total eligible project costs \geq \$6,000
Maximum Grant Request	\$500,000 Total eligible project costs \geq \$2 million	Maximum Grant Request	\$250,000 Total eligible project costs \geq \$1 million















*Up to 25% of Total Eligible Project Costs

REAP Guaranteed Loan Funding

Minimum Loan Amount	\$5,000 Total eligible project costs \geq \$6,667
Maximum Loan Amount	\$25 million Total eligible project costs \geq \$33.4 million
Details	<ul style="list-style-type: none">• USDA guarantees a commercial loan; applicant must have a willing lender.• Terms are negotiated between the lender and borrower.• Fees, appraisals, equity & collateral requirements apply.

*Up to 75% of Total Eligible Project Costs

REAP 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 Eligible

Renewable Energy Systems & Energy Efficiency Improvements: Grant & Loan Guarantee Program

REAP Grants may be used to pay up to 25% of the eligible project costs or as follows:

<u>Type of Application</u>	<u>Minimum Amt.</u>	<u>Maximum Amt.</u>
Renewable Energy System	\$2,500	\$500,000
Energy Efficiency Improvement	\$1,500	\$250,000

REAP Loan Guarantees (or combination Grant & Loan Guarantee) may be used to pay up to 75% of the eligible project costs or as follows:

<u>Type of Application</u>	<u>Minimum Amt.</u>	<u>Maximum Amt.</u>
Renewable Energy System	\$2,500	\$25,000,000
Energy Efficiency Improvement	\$1,500	\$25,000,000

REAP – Guaranteed Loan Terms

✓ LOAN SIZE

- Minimum Loan Amount: \$5,000
- Maximum Loan Amount: \$25,000,000

✓ GUARANTEE

- **85%** for loans \$600,000 or less.
- **80%** for loans over \$600,000 up to \$5 Million
- **70%** for loans over \$5 Million up to \$10 Million
- **60%** for loans over \$10 Million

REAP – Guaranteed Loan Terms

✓ MAXIMUM TERM LIMITS

- Working Capital – 7 Years
- Machinery & Equipment – 15 Years (*or useful life, which every is less*)
- Real Estate – 30 Years



✓ OTHER FUNDS REQUIRED

25% of project costs

✓ INTEREST RATE

- Fixed or Variable; variable cannot adjust more than quarterly
- Negotiated between lender and borrower



REAP – Guaranteed Loan Terms

✓ FEES

- One-time guarantee fee of **1%**
- ¼% annual renewal fee



✓ BENEFITS TO LENDER

- **Mitigate Risk**
Guarantee is a “loss” guarantee
- **Increase Capital and Improve Bank Liquidity**
Sale of Loan Note Guarantee on Secondary Market
- **CRA benefits**

REAP – Guaranteed Loan

✓ BENEFITS TO BORROW

Assists in providing stability and growth through energy efficient improvements and renewable energy utilization

- Increases the ability to receive:
 - ✓ Higher Loan Amounts
 - ✓ Competitive Interest Rates
 - ✓ Longer Repayment Terms
 - ✓ Full-term amortized loans

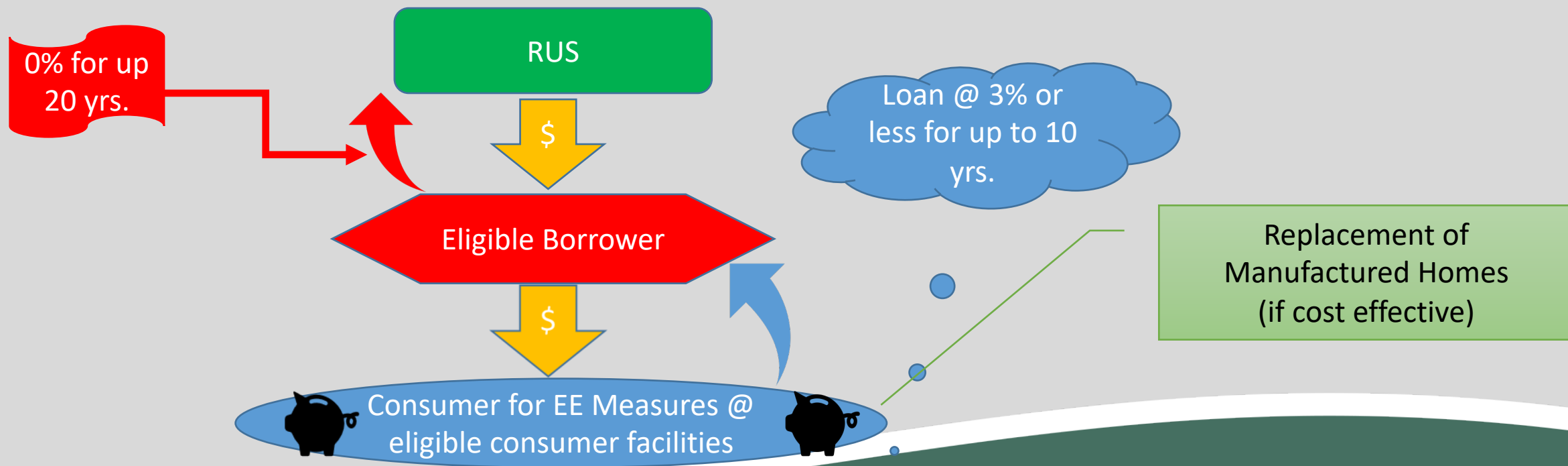


Rural Energy Savings Program- A Tool for the Utility















Why we have RESP?

To help rural families and small businesses achieve cost savings through loans that would enable them to implement durable cost-effective energy efficiency measures.

How do we help rural families and small businesses achieve cost savings?



REAP 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
			

DERs- EECLP –Load Management Tool at System Level

- Changing the infrastructure (electrical AND communications)
 - Distributed Generation (CT's, Solar, Biomass, Wind, Geothermal, etc.)
 - Storage (Battery, pumped hydro or air, etc.)
 - Smart Inverters
 - Network Efficiency

- Broadband and e-connectivity is essential to the electrical infrastructure and the rural economy



DERs- EECLP/RESP – Load Management Tool by behind the meter applications

- Empower the customer to be proactive in the electric industry
 - Distributed Generation (Solar, Wind, Biomass)
 - Storage (Battery, Electric Vehicles)
 - Smart Inverters
 - Energy Efficiency
 - Demand Response



Questions?



Insert event name & date

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