

We'll be starting in just a few minutes....

Visit our new [Online Learning Series](#) webpage on the Solution Center where you can see the schedule of upcoming webinars, RSVP, and access previously recorded webinars on other energy management topics.





Online Learning Series – Webinar #4
Resources You Should Know:
**USDA Rural Development Programs and the Department
of Commerce Manufacturing Extension Partnership**

Eli Levine

Office of Energy Efficiency and Renewable Energy



Eli Levine

U.S. Department of Energy

Better Plants Online Learning Series



NEW! Better Plants Online Learning Series

Starting Thursday, April 16, 2020 | 1:00pm US-ET

[CLICK HERE TO LEARN MORE](#)

Webinar Topic	Speaker	Date	Time	Link
1. Better Plants Town Hall	Eli Levine (DOE), feat. Al Hildreth (General Motors)	04/16/20	RECORDED	Watch Recording
2. Basics of Energy	Thomas Wenning (ORNL)	04/23/20	RECORDED	Watch Recording
3. Lighting, HVAC, and Building Envelope	Thomas Wenning (ORNL)	04/29/20	1:00 pm US-EST	Watch Recording
4. Resources You Should Know: USDA Rural Development Programs and the Department of Commerce Manufacturing Extension Partnership	Venus Welch-White (USDA) and David Stieren (NIST-MEP)	05/07/20	1:00 pm US-EST	Register
5. Compressed Air Systems	Thomas Wenning (ORNL)	05/14/20	1:00 pm US-EST	Register
6. Water Efficiency	Sachin Nimbalkar (ORNL)	05/21/20	1:00 pm US-EST	Register

REGISTER
TODAY



JUNE 8-11

2020 SUMMIT

A Virtual Leadership Symposium

Learn more and register: betterbuildingsolutioncenter.energy.gov/summit

U.S. DEPARTMENT OF
ENERGY

David Stieren

U.S. Department of Commerce

National Institute of Standards and Technology



The NIST Hollings Manufacturing Extension Partnership (MEP) Program

**U.S. Department of Energy
Office of Energy Efficiency and
Renewable Energy Webcast**
May 7, 2020

David Stieren

*NIST MEP Division Chief, Extension Services
david.stieren@nist.gov*



MEP National Network



Non-federal assistance
Centers located in all 50
US states and Puerto Rico,
program managed by NIST



Public-private partnership
with local flexibility



Federal funds, state investments,
private sector fees cover services

- \$146M FY20 NIST MEP; *matched by MEP Centers*
- + \$50M CARES Act
- *Cost share waiver via CARES Act*



Market driven program that
creates high value for
manufacturers



Leverage partners to
maximize service offerings



Extension-based program
transfers technology and
expertise to manufacturers

MEP National Network





NATIONAL NETWORK

One Center in Every State and Puerto Rico

Nearly

2,100



Service Providers & Partners

Over

1,400



Manufacturing Experts

Approx.

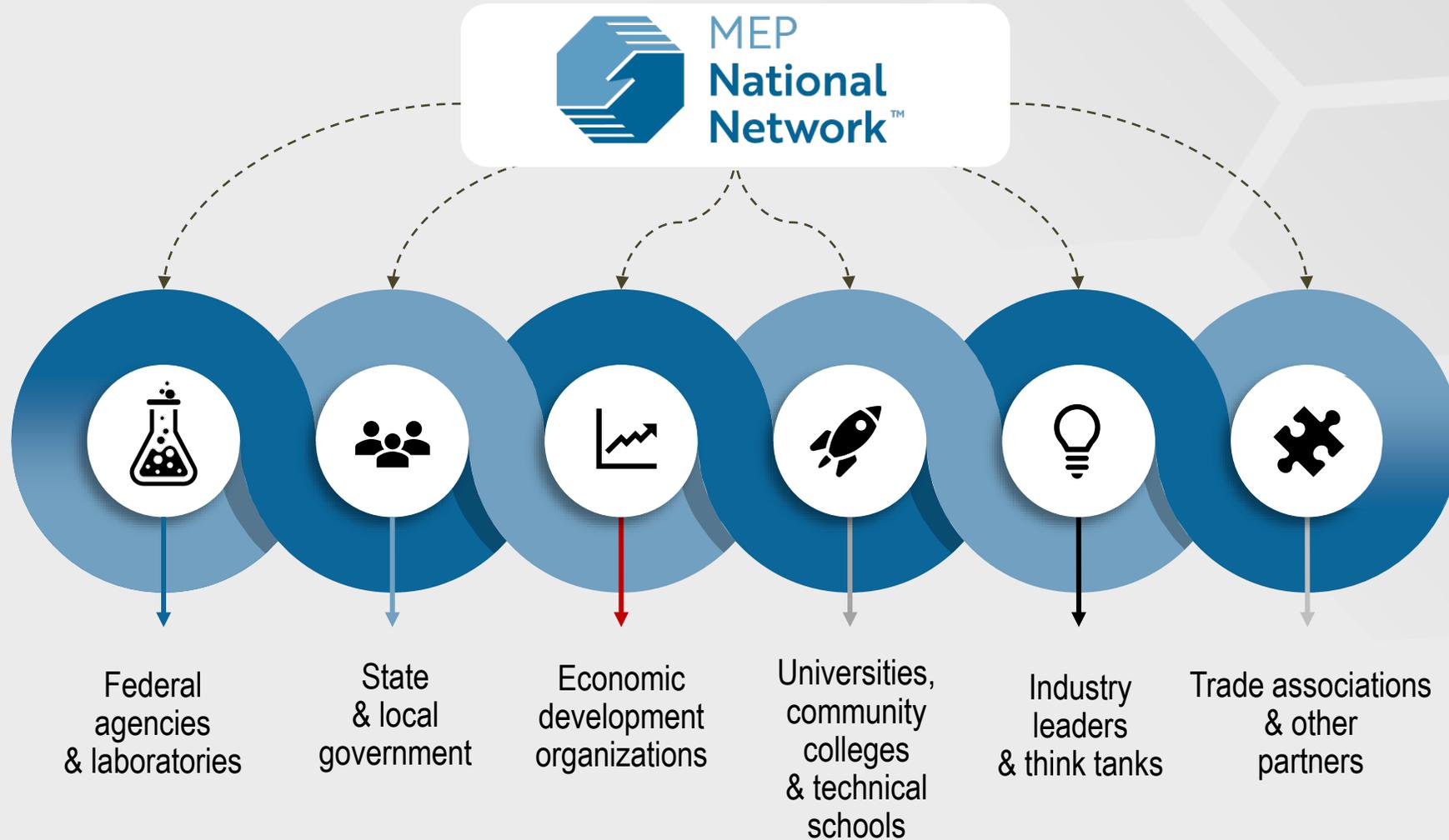
375

Service Locations





Our Partners





In FY2019, the MEP National Network connected with 28,213 manufacturers, leading to:

114,650 JOBS Created or Retained

\$15.7 BILLION
in New and Retained Sales 

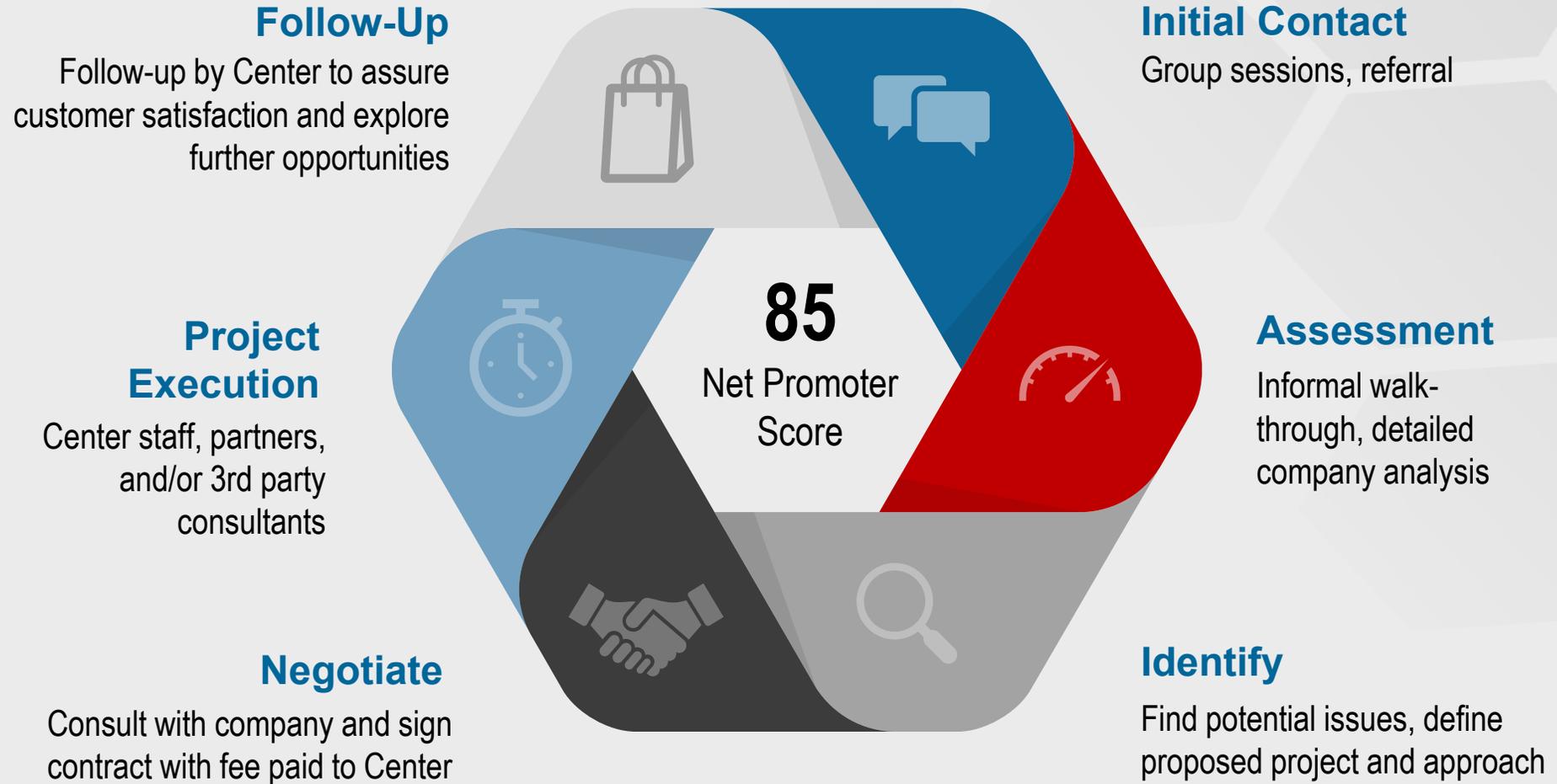
\$4.5 BILLION 
in Total Investment in U.S. Manufacturing

\$1.5 BILLION 
in Cost Savings

Numbers are based on survey results from MEP Center clients.



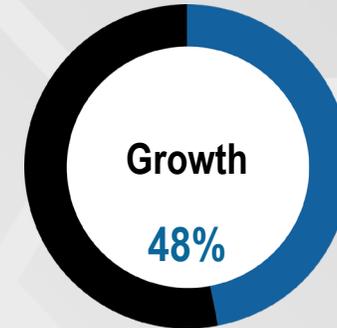
How Centers Work with Manufacturers



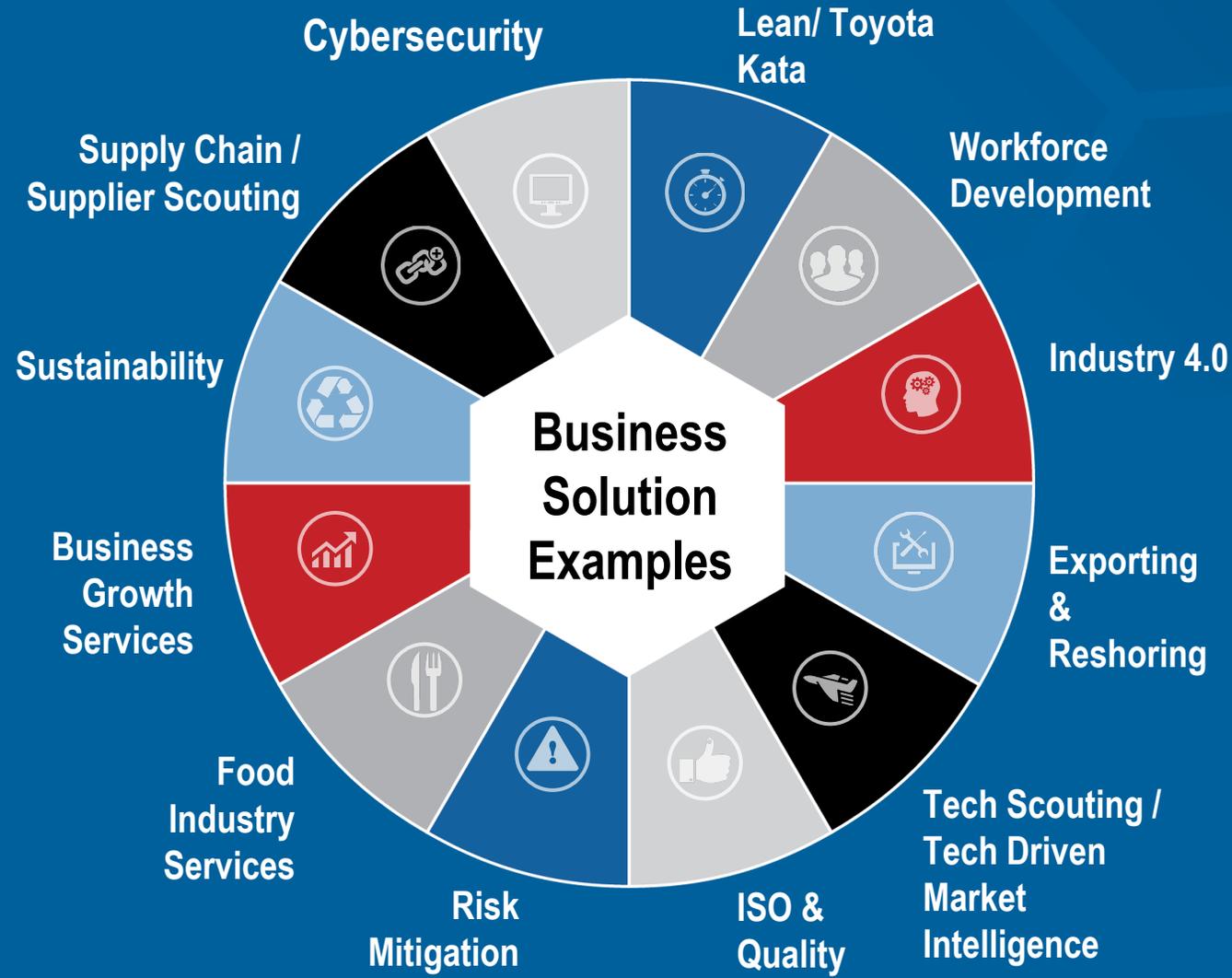


Client Challenges

The share of MEP clients reporting **employee recruitment and retention** as a challenge has nearly tripled.



Information based on FY 2019 MEP National Network Client Impact Survey



This broad portfolio of MEP Center technical assistance to US manufacturers positions MEP Program for response to the National emergency VERY WELL.



MEP Response to the National Emergency

- MEP Centers nationwide are swiftly responding to our current national emergency by helping U.S. manufacturers be agile and innovative in response to growing supply chain fragility and decreasing markets.
 - ✓ *Includes helping U.S. manufacturers respond to the urgent need for personal protective equipment (PPE), medical equipment and supplies*
- MEP National Network response:
 - ✓ *Connecting resources to needs*
 - ✓ *Working directly with state governments*
 - ✓ *Addressing specific issues with manufacturing PPE, medical supplies, and medical devices*
 - ✓ *Maintaining base operations and serving all manufacturers*
- **MEP Program also received \$50M in CARES Act funding – being disbursed to MEP Centers now**



MEP Connecting Resources to Needs

MEP NN currently working with industry orgs, federal, state and local govts., and manufacturers to share critical info, connect resources to address urgent needs including:

- ✓ *Supply chain mapping for critical PPE needs.*
- ✓ *Matching resources to needs in medical, food supply chains.*
- ✓ *Connecting w/state govt partners, agencies to create, operate supply chain portals.*
- ✓ *Determining current, potential critical needs and linking w/mfrs to meet them.*
- ✓ *Identifying alternative materials, specs, resources for mfrs to meet critical needs.*
- ✓ *Helping train workforce and transition workers.*
- ✓ *Connecting manufacturers to national needs identified by federal agencies such as the DoD, FEMA, FDA, and connecting them to financial resources at the SBA*



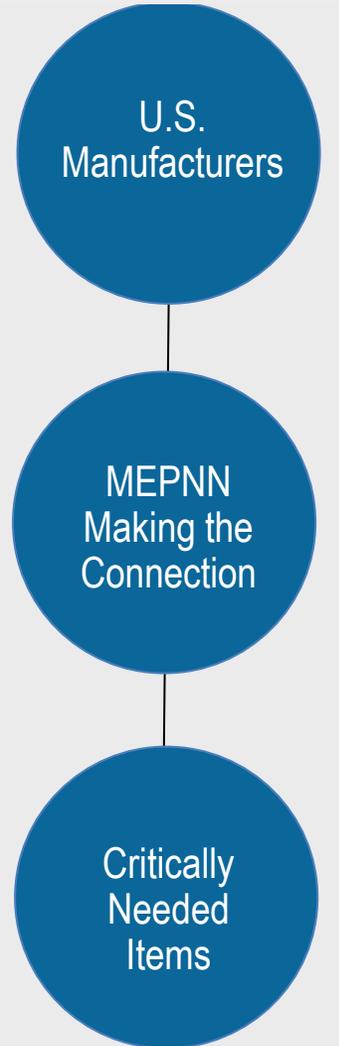
MEP Working Directly with State Governments

MEP Centers are helping to link state government policies and programs to the manufacturers in their states by:

- ✓ *Participating in emergency task forces to address challenges and issues*
- ✓ *Serving as the connection between the manufacturing industry and state procurement efforts*
- ✓ *Managing supply chain portals linking manufacturers to demand and organizing them to deploy as needs change at the state level*
- ✓ *Connecting manufacturers with state resources.*



Production, Engineering
Capabilities & Capacities
& Business Interests



Production Opportunities
& Needs from
Supply Chains

MEP Supplier Scouting

- Mobilize MEPNN to respond to national needs for critical, short-supply products.
- Bring supply opportunities to U.S. manufacturers.
- **Connect** products, capabilities, capacities of U.S. (small) manufacturers with:
 - National and market needs.
 - Needed new business.
- **Provide *assistance* to manufacturers, including:**
 - Technical manufacturing services for products, processes.
 - Manufacturing Strategy and Scale-up.
 - Production Optimization, (Re)tooling (Lean/Quality).
 - Supply Chain Requirements and Market Diversification.
 - Innovation and Product/Process Development.
 - IP Management and Financing/Access to Capital.
 - Workforce.



MEP Supplier Scouting

- MEP Center scouts in every state and Puerto Rico leverage knowledge of local manufacturers and individual Center best practices to identify potential suppliers for critically needed products – typically within 1 week.
 - MEPNN scouts for U.S. manufacturers that are capable and interested in supplying needed products.
 - Products sought are real, immediate, viable business opportunities for U.S. manufacturers that help remedy critical needs.
 - MEP Supplier Scouting services can apply at national and state levels.
- MEP Scouting connections can also lead to provision of MEP Center assistance to firms per specific supply needs and requirements.
 - Market diversification for manufacturers.
 - Supply chain requirements (certifications, etc.).
 - Other technical assistance as appropriate.

Key to MEP Supplier Scouting success is the MEP National Network – not the tools utilized.



MEP Addressing Specific Issues with Manufacturing PPE, Medical Supplier, Medical Devices

MEP Centers are currently:

- ✓ Guiding manufacturers to answers, solutions and information about testing protocols, quality testing and required certifications.
- ✓ Addressing issues of potential legal liabilities arising from the production of:
 - *PPE including examination gloves, face shields, goggles/masks, gowns, N95 respirators, powered air purifying respirators, surgical face masks*
 - *Medical supplies including catheters, flow-splitters for oxygen supply, nasal cannulas, oxygen masks, Thorpe tube flowmeters and Venturi masks*
 - *Medical devices including beds, cool misters, infusion pumps, laryngoscopes, negative pressure rooms, noncontact thermometers, oxygen concentrators, pulse oximeters and ventilator machines.*



MEP Maintaining Base Ops, Serving All Manufacturers

MEP NN continues to fulfill MEP Program mission to strengthen and empower U.S. manufacturers to maintain the health of the U.S. manufacturing base as it faces an extraordinary emergency that will have long-lasting effects.

MEP Centers are currently:

- ✓ *Working with companies needing access to capital thru loans, lines of credit, cash*
- ✓ *Helping businesses protect their workforce and their workplace.*
- ✓ *Guiding manufacturers as they examine and stabilize their own supply chains.*
- ✓ *Helping companies engage customers in new and different ways.*
- ✓ *Examining ways manufacturers can use technologies to improve productivity.*
- ✓ *Protecting manufacturers against cybersecurity threats.*



Questions / Discussion

The MEP National Network is a viable partner to connect with U.S. manufacturer needs – one at a time and on a national scale, by the 100s/1000s – in response to and in preparation for recovery from the National emergency.

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- www.nist.gov/mep

Venus Welch-White
U.S. Department of Agriculture



USDA RD Funding Resources

Leveraging Federal Resources – DOE Better Plants Webinar Series

May 7, 2020

 **USDA** Rural Development
U.S. DEPARTMENT OF AGRICULTURE

Venus Welch-White, PhD
Rural Business-Cooperative Service (RBCS), USDA

USDA-DOE Memorandum of Understanding (MOU)



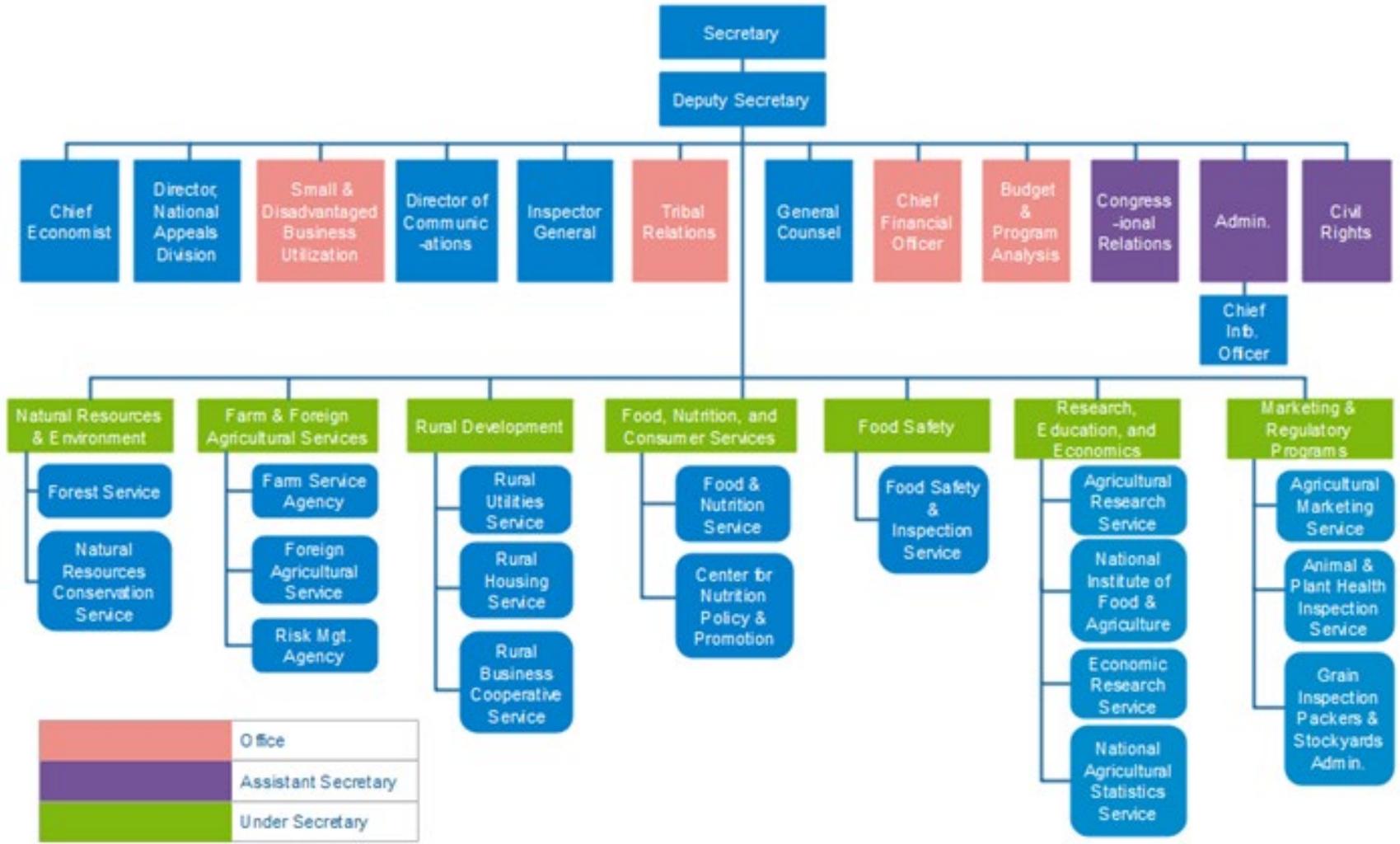
U.S. DEPARTMENT OF
ENERGY



**United States
Department of
Agriculture**

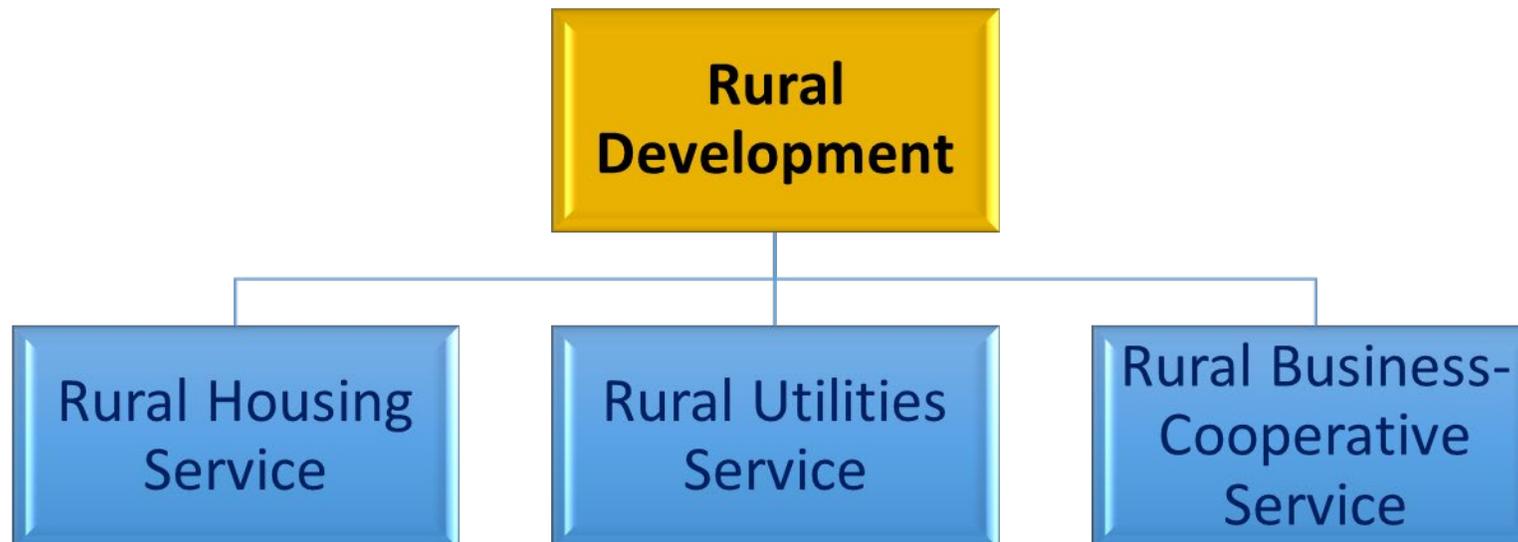
On Oct 24th, the Under Secretary (DOE) Mark W. Menezes and Deputy Under Secretary (USDA) Donald LaVoy, formally announced the MOU between the two departments to promote rural energy and the development of technologies that will support and advance rural and agricultural communities and domestic manufacturing. This MOU satisfies 6501 of the 2018 Farm Bill.

United States Department of Agriculture



USDA Rural Development's Mission

To assist rural communities in creating prosperity so they are self-sustaining and economically thriving through investments that create ladders of opportunity, build regional resilience, and support the growth of emerging markets.



Rural Development Funding Programs by Agency

Rural Utilities Service

- Electric Program
- High Energy Cost Grants
- Rural Energy Savings Program
- Water & Environmental Programs
- Telecommunications and Broadband Programs

Rural Housing & Community Facilities

- Homeownership Loans
- Home Repair Loans & Grants
- Mutual Self-Help Technical Assistance Grants
- Multi-Family Housing Loans
- Farm Labor Housing Loans & Grants
- Housing Preservation Grants
- Community Facilities Loans & Grants

Rural Business & Cooperative Service

- Business and Industry Guaranteed Loans
- Intermediary Relending Program
- Rural Business Development Grants
- Rural Energy for America Program Grant and Guaranteed Loan
- Value Added Producer Grants
- Cooperative Development Assistance
- Biorefinery, Renewable, Chemical and Biobased Product Manufacturing Guaranteed Loan Program
- Biobased Product Program

Rural Business and Cooperative Service (RBCS)

- USDA's Rural Business-Cooperative Service offers a multitude of programs to support rural business growth
- Our programs can assist with capital needs, training, education and entrepreneurial skills that can aid across agricultural markets and in the bio-based economy.
- USDA and our public and private partners are connecting rural residents to the global economy.
- **In FY 2019 RBS invested approx. \$2 Billion across loan and grant programs.**
- These investments support America's long-term prosperity by ensuring that our rural communities are able to grow and prosper.
- Programmatic Funding for Persistent Poverty designations in FY20 Appropriations Bill

Biobased Markets - BioPreferred®

Biobased Markets Program (BioPreferred®), a labeling and procurement program is now administered under Rural Development (moved from Departmental Management).



Biobased Marketing Program Updates

- Renewable Chemical Provisions – expanded
- Consolidated simplified labeling/procurement provisions
- Biobased products NAISC provisions -
- Consumer education and industry partnership opportunities

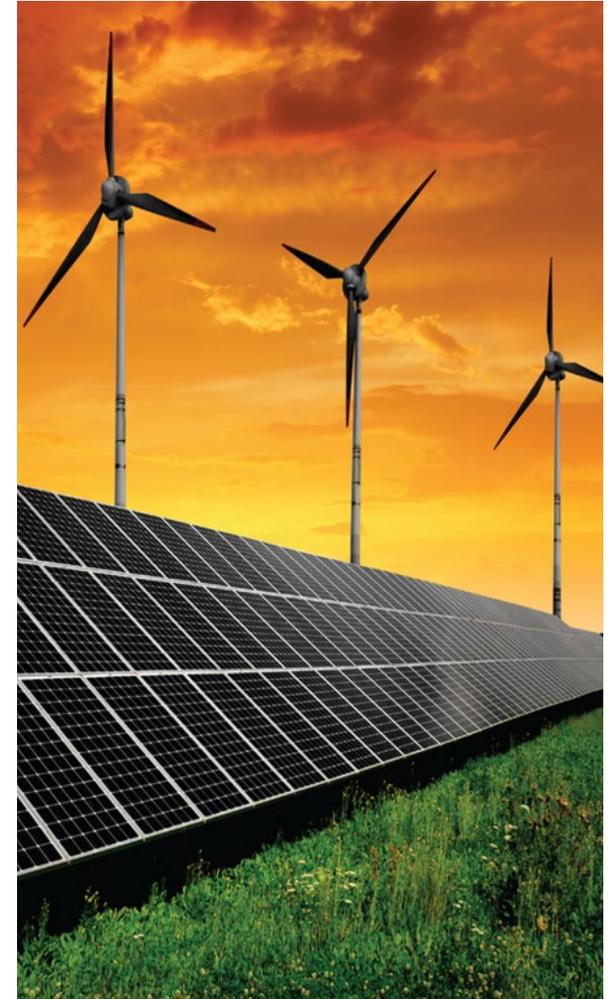


9007:

Rural Energy for America Program (REAP)

The Rural Energy for America Program (REAP) provides grant and guaranteed loan funding for commercially available renewable energy systems and energy efficiency improvements for agricultural producers and rural small businesses.

- Guaranteed Loan up to \$25 Million (75% of Total Eligible Project Costs)
- Grants up to \$500K for Renewable Energy Systems and up to \$250K for Energy Efficiency Improvements (25% of Total Eligible Project Costs)
- **In FY2019 REAP awarded approx. \$250 Million nearly to 1400 projects.**
- **FY2020**
 - \$500 Million available for Guaranteed Loans**
 - \$40 Million available for Grants**



Rural Energy for America Program

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

Rural Energy for America Program

REAP Grant – Application Deadline March 30th 2020

 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

Rural Business Development Grant/ Loan

This program is designed to provide technical assistance and training for small rural businesses. Small means that the business has fewer than 50 new workers and less than \$1 million in gross revenue.

Rural public entities including, but not limited to:

- Towns
- Communities
- State agencies
- Authorities
- Nonprofit corporations
- Institutions of higher education
- Federally-recognized tribes
- Rural cooperatives (if organized as a private nonprofit corporation).

Rural Business Development Grant/ Loan

Enterprise Grants support:

- Training and technical assistance, such as project planning, business counseling/training, market research, feasibility studies, reports, product/service improvements.
- Acquisition or development of land, easements, and rights of way.
- Construction, conversion, or repairs of buildings, equipment, and utilities.
- Capitalization of revolving loan funds, including funds that will make loans for start-ups and working capital.
- Distance learning for job training and development.
- Rural transportation improvement.

Opportunity Grants support businesses:

- Identify and analyze business opportunities.
- Identify, train, and provide technical assistance to existing or prospective rural entrepreneurs and managers.
- Assist in the establishment of new rural businesses and the maintenance of existing businesses, including through business support centers.
- Conduct regional, community, and local economic development planning and coordination, and leadership development.
- Establish centers for training, technology, and trade that will provide training to rural businesses in the use of interactive communications technologies to develop international trade opportunities and markets.

USDA – Rural Development Loan Programs

- USDA Rural Development provides direct loans and loan guarantees under various programs across the 3 agencies.
- USDA Rural Development can provide a government guarantee of rural business loans made by banks, credit unions, Farm Credit Services, and other approved lenders.
- The loan's interest rate and repayment terms are negotiated between the borrower and the lender, with Agency concurrence.
- Eligible projects must be located in a rural area, defined by program.
 - * Agriculture (REAP) and Healthy Food (B&I) Projects are not restricted to rural

Business & Industry (B&I) Loan Guarantee



The B&I program is used:

- To improve, develop, or finance business, industry, and employment
- To improve the economic and environmental climate in rural communities
- To provide lasting community benefits

Not intended for marginal or substandard loans

B&I Guaranteed Loan Purposes

- Purchase and development of land, buildings, and associated infrastructure for commercial and industrial properties.
- Business acquisitions, expansions, modernizations, and conversions.
- Commercial or Industrial real estate for lease to private businesses.
- Machinery & Equipment
- Start-up costs, Inventory, and Working Capital.
- Processing & Marketing Facilities
- Renewable Energy Generation – *under certain conditions*
- Debt Refinancing – *under certain conditions*

Rural Energy for America Program

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

RBSC Guaranteed Loans: Limits

Maximum Loan Amounts

- \$10 Million - standard
- \$25 Million – must be “High Priority” score
- \$40 Million for rural cooperative organizations
- REAP (Grants & Loans), B&I Loans and other Federal Loans can be combined to maximize guaranteed amounts and reduce equity requirements

Business & Industry (B&I) Loan Guarantee

- Fiscal year 2018
 - Number of Loans: 346
 - Amount Obligated: \$1.2 billion
 - Average Loan Size: \$3.4 million
 - Jobs created/saved: 11,401
 - Businesses assisted: 420
- **FY2020 Appropriations: \$1.2 Billion**



9003:

Biorefinery Renewable Chemical and Biobased Product Manufacturing Assistance Program

- Eligible projects are the development, construction, or retrofitting of a Commercial-Scale Biorefineries using Eligible Technology.
- May produce advanced biofuel, Biobased products, renewable chemicals, or any combination thereof
- Guaranteed Loan up to \$250 Million
- **As of Sept 30, 2019:**
 - **Closed 2 loans (Approx. \$310 Million)**
 - **Issued 5 Conditional Commitments / Loan Obligations (Approx. \$500 Million)**
 - **Have 22 Projects in the Phase II Pipeline (Approx. \$2 Billion)**

Intermediary Relending Program

The program provides 1 percent low-interest loans to local lenders or “intermediaries” that re-lend to businesses to improve economic conditions and create jobs in rural communities.

Who may apply to be an intermediary lender?

- The following are eligible:
- Nonprofits and cooperatives.
- Federally-recognized tribes.
- Public agencies.

Are there other requirements? Intermediary lenders must have:

- The legal authority to operate a Revolving Loan Fund (RLF) (2).
- A record of successfully assisting rural businesses and communities, normally including experience making and servicing commercial loans.
- The ability to provide adequate assurance of repayment of the loan.

The following are eligible to apply for a loan from the intermediary lender as an ultimate recipient:

- Ultimate recipients may be individuals, public or private organizations or other legal entities, given that:
- Majority ownership is held by U.S. citizens or permanent residents.
- The applicant owes no delinquent debt to the Federal Government.
- The applicant is unable to obtain affordable commercial financing for the project elsewhere.
- The project is located in an eligible rural area - Check Eligibility.
- The applicant has no legal or financial interest or influence in the work of the intermediary lender.

Intermediary Relending Program

How much funding is available to intermediaries?

- Up to \$2 million for the first financing.
- Up to \$1 million at a time thereafter.
- Total aggregate debt from all funding may not exceed \$15 million.

What are the terms for the intermediary lender?

- The interest rate is fixed at 1 percent.
- The maximum term is 30 years.
- interest-only payments may be permitted for the first three years.
-

What is the maximum loan amount available to ultimate recipients?

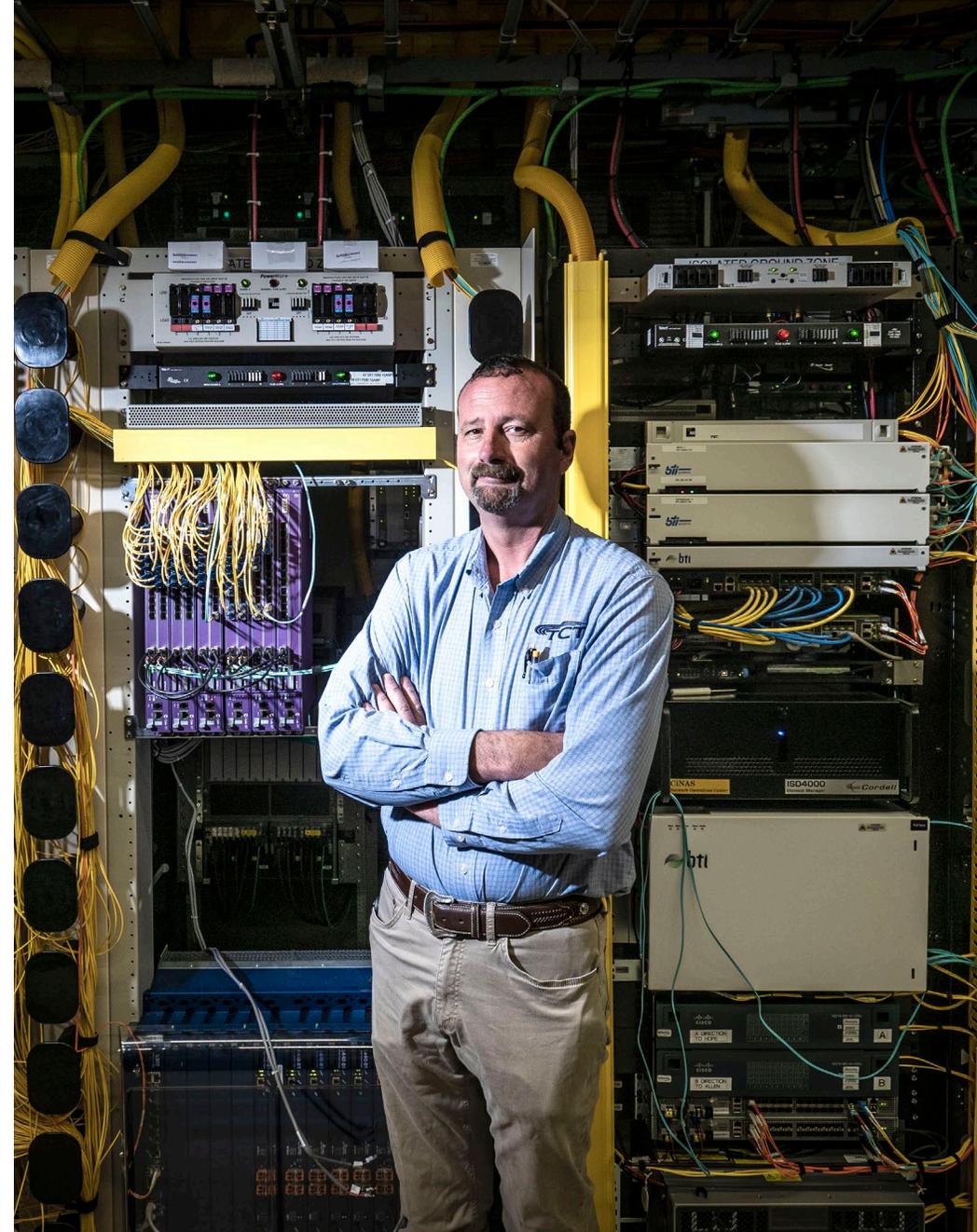
- \$250,000 or 75 percent of the total cost of the ultimate recipient's project for which the loan is being made, whichever is less.

How may funds be used?

- To acquire, construct, convert, enlarge or repair a business or business facility, particularly when jobs will be created or retained.
- To purchase or develop land (easements, rights of way, buildings, facilities, leases, materials).
- To purchase equipment, machinery or supplies, or make leasehold improvements.
- For start-up costs and working capital.
- For pollution control and abatement.
- For transportation services.
- To cover feasibility studies and some fees.
- Towards the building of hotels, motels, convention centers.
- For educational institutions.
- For aquaculture-based rural small business.
- To establish revolving lines of credit as described in 7 CFR Part 4274.314

Community Facilities Loan Guarantees (CF)

- Community facilities that provide essential services to the local community in a rural area.
- The CF Program defines a rural area as cities, towns and census designated places (CDPs) with populations of 50,000 or less (20,000 or less for direct loans/grants) according to the latest decennial census of the United States this includes Federally Recognized Tribal Lands.
- Eligible borrowers includes: Public bodies, Community-based nonprofit corporations and Federal recognized Tribes.
- Funds can be used to purchase, construct and/or improve essential community facilities, purchase equipment and to pay related project expenses.



Leveraging RBCS Programs: Incentives and Tax Credits

There are a variety of investment incentives and tax credit programs which can be used in tandem with RBCS programs

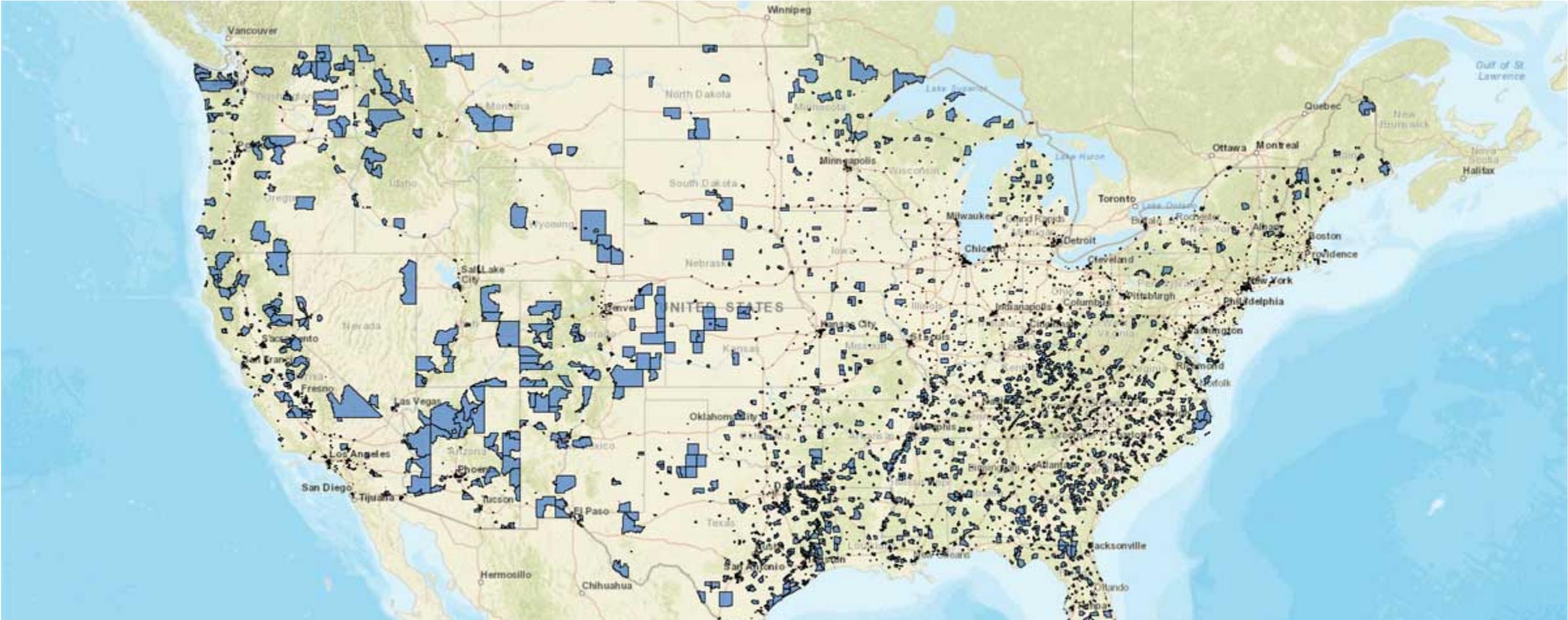
(may satisfy other equity requirements)

These incentives include:

- ✓ Opportunity Zones
- ✓ New Market Tax Credit
- ✓ Investment Tax Credits
- ✓ Carbon Capture Tax Credit
- ✓ State Energy Programs/ Tax Credits
- ✓ Secondary Market Sales/ Revenue



Qualified Opportunity Zones



Rural Energy for America Program



Rural Electric Cooperative



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

- \$79,990 Total Cost



- \$13,547 REAP Grant

- \$66,443 Applicant Funds



66% reduction in energy costs

Rural Energy for America Program

Merrill Manufacturing Storm Lake, IA



Manufacturing Facility	
	Purchase and installation of energy
	efficient heating and cooling system.
	\$ <u>74,960</u> REAP Energy Efficiency Guaranteed Loan
	reduction in energy costs

Business & Industry (B&I) Loan Guarantee



Rural Business - Ohio



Purchased the Hi-Pass air compressor system that will be rented to gas drillers to improve the efficiency of the drillers operation



\$2,080,000 Total Cost



Lender - Byline Bank

More Information

<https://www.rd.usda.gov/RBS>

Venus Welch- White, PhD

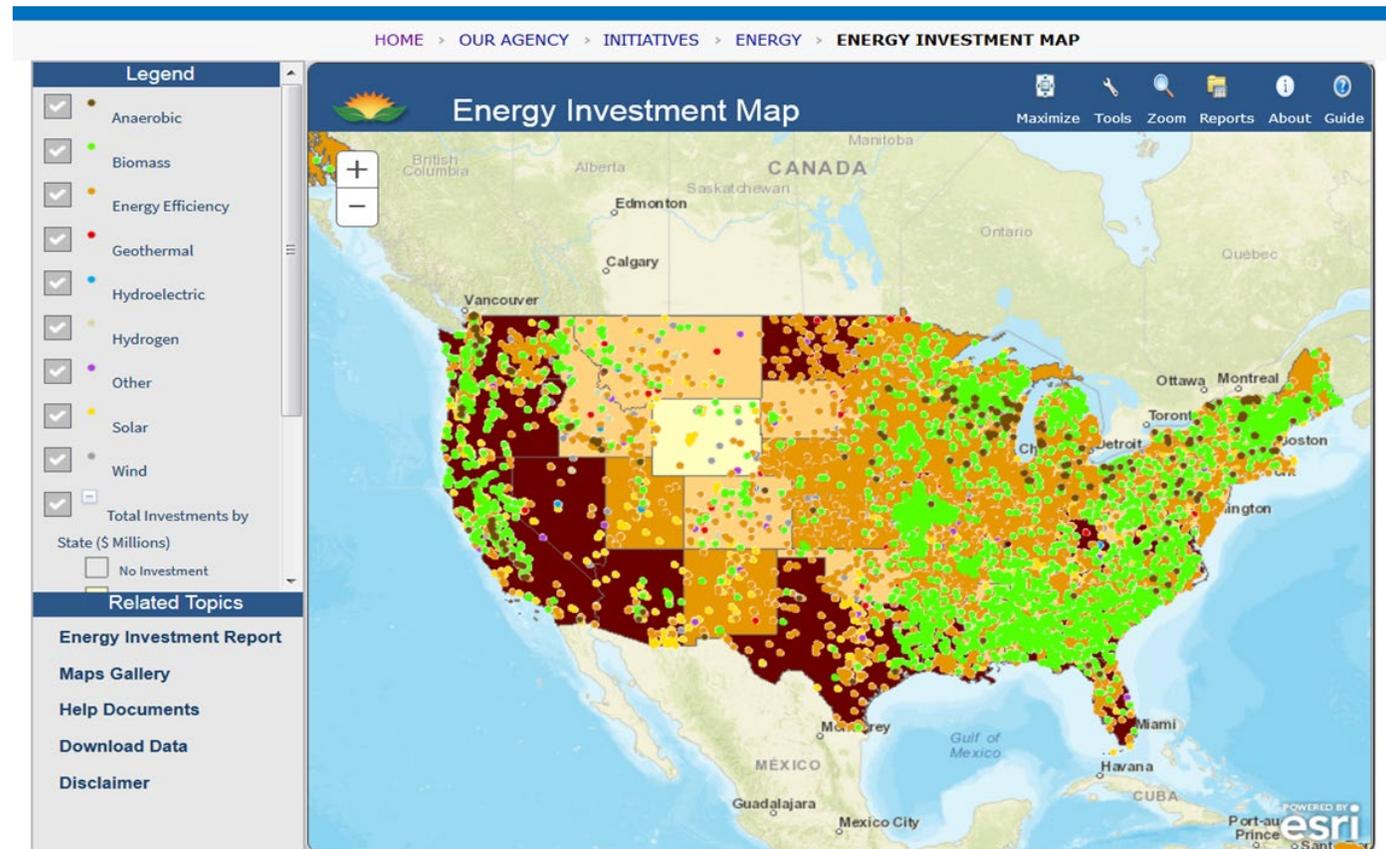
National Rural Energy Program
Coordinator

Rural Business-Cooperative Service

Venus.WelchWhite@usda.gov

USDA Energy Investment Map

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



Q & A



Learn About Partner Achievements In The 2019 Better Plants Progress Update



Save The Date For The 2020 Summit June 8-10, 2020



View Better Buildings Progress Reports

BETTER BUILDINGS

Better Buildings is an initiative of the U.S. Department of Energy (DOE) designed to improve the lives of the American people by driving leadership in energy innovation. Through Better Buildings, DOE partners with leaders in the public and private sectors to make the nation's homes, commercial buildings and industrial plants more energy efficient by accelerating investment and sharing of successful best practices.



Better Plants Online Learning Series

BETTER PLANTS TOWN HALL

Thr, Apr 16, 2020 | 1:00 - 2:00 PM ET

BASICS OF ENERGY

Thr, Apr 23, 2020 | 1:00 - 3:00 PM ET

LIGHTING, HVAC, AND BUILDING ENVELOPE

Wed, Apr 29, 2020 | 1:00 - 3:00 PM ET

RESOURCES YOU SHOULD KNOW:

USDA Rural Development Programs & the Dept. of Commerce
Manufacturing Extension Partnership

Thr, May 7, 2020 | 1:00 - 2:00 PM ET

COMPRESSED AIR SYSTEMS

Thr, May 14, 2020 | 1:00 - 3:00 PM ET

[REGISTER TODAY >](#)

WATER EFFICIENCY

Thr, May 21, 2020 | 1:00 - 2:00 PM ET

[REGISTER TODAY >](#)

Additional Questions?

Please Contact Us



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Better Buildings Solution Center
<http://betterbuildingssolutioncenter.energy.gov/better-plants>



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