



*National Association of
State Energy Officials*

NASEO Rural Energy Working Group Webinar: State Energy Office Approaches to the Energy-Agriculture Nexus



June 8, 2023

NASEO Rural Energy Working Group

- NASEO is relaunching our Rural Energy Working Group after a year-long hiatus, in response to increased federal funding opportunities for rural energy improvements and interest from the NASEO Board.
- The NASEO Rural Working Group will meet on a quarterly basis in the form of all-member education webinars or states-only forums on:
 - The energy-agricultural nexus
 - Clean energy siting on rural lands
 - Economic development and workforce opportunities
 - Rural community engagement
 - Rural and agricultural energy programs and project development
 - Intrastate partnerships

Federal Funding to Support Rural Energy Improvements from the Infrastructure Investment & Jobs Act (IIJA)

Section	Funding Details	Eligibility
IIJA Sec. 40109 – State Energy Program	Formula grants. \$4.3 billion through 2031. U.S. Department of Energy (DOE) administers.	State Energy Offices. Broad project eligibility on energy efficiency and clean energy projects.
IIJA Sec. 40552 – Energy Efficiency and Conservation Block Grant	Formula grants. \$550M. DOE administers.	State Energy Offices, local governments. Broad project eligibility on energy efficiency and clean energy projects.
IIJA Sec. 40103 - Energy Improvements in Rural or Remote Areas	Competitive grants. \$1B (\$200M appropriated annually between FY 2022-26). DOE administers. 2 FOAs + one competitive prize: FOA published March 2023 requires cost-match, FOA published May 2023 does not require cost-match	Broad eligibility – includes State Governments. Can be used for economic development, efficiency and weatherization, and energy infrastructure.

Federal Funding to Support Rural Energy Improvements from the Inflation Reduction Act (IRA)

Section	Funding Details	Eligibility
IRA Sec. 22001 – Electric Loans for Renewable Energy	Forgivable loans. \$1 billion. U.S. Department of Agriculture (USDA) administers.	Rural electric cooperatives and other eligible entities, including State Governments. For renewable energy infrastructure and system upgrades.
IRA Sec. 22002 – Rural Energy for America Program (REAP)	Competitive grants. \$2 billion total - \$1 billion administered quarterly until September 2024, remainder in guaranteed loan funds until funds are exhausted. USDA administers.	Agricultural producers and rural small business owners. Broad project eligibility on energy efficiency and renewable energy systems.
IRA Sec. 22003 – Biofuel Infrastructure and Agriculture Product Market Expansion	Competitive grants. \$500 million until 2031. USDA administers.	Owners of transportation fueling and fuel distribution facilities. For fueling infrastructure that promote the use of biodiesel.
IRA Sec. 22004 – The Empowering Rural America Program (“New ERA”)	Competitive loans and grants (or loan mods and refinancing). \$9.7 billion. USDA administers.	Rural electric cooperatives. For deployment of renewable and zero-emission, carbon capture, and generation & transmission systems, plus carbon capture.

Federal Funding to Support Rural Energy Improvements from IRA (cont'd)

Section	Funding Details	Eligibility
IRA Sec. 22006 – Farm Loan Immediate Relief for Borrowers with At-Risk Agricultural Operations	Forgivable loans. \$1 billion. USDA administers.	Rural electric cooperatives and other eligible entities, including State Governments. For renewable energy infrastructure and system upgrades.
IRA Sec. 22007 – USDA Assistance and Support for Underserved Farmers, Ranchers, and Foresters	Competitive grants. \$2 billion total - \$1 billion administered quarterly Feb 2023-Sept 2024, remainder in guaranteed loan funds until funds are exhausted. USDA administers.	Underserved farmers, ranchers, and forest landowners. For technical assistance, land loss assistance, professional development and education, and other financial assistance.
IRA Sec. 80003 - Tribal Electrification Program	Grants. \$150 million. U.S. Department of the Interior (DOI) administers.	Federally recognized Tribes and Tribal organizations. For zero-emissions energy systems for unelectrified Tribal homes and homes currently on fossil fuel systems.
IRA Sec. 50145 – Tribal Energy Loan Guarantee Program	Direct loans, partial loan guarantees. \$20 billion. DOE administers.	Federally recognized Tribes and Tribal organizations. Broad clean energy project eligibility. Existing program with expanded loan authority (from \$2B to \$20B).

Federal Funding to Support Rural Energy Improvements (annual appropriations)

Program	Funding Details	Eligibility
State Energy Program (annual)	Formula grants. \$60M in 2023 Program Year. DOE administers.	State Energy Offices. Broad project eligibility.
USDA Rural Energy Savings Program (RESP)	Loans. Current application year offering \$90 million. USDA administers.	Rural electric cooperatives, current and former Rural Utilities Service borrowers. Broad project eligibility for financing energy efficiency, renewable energy, and storage measures.
USDA Rural Energy for America Program (REAP)	Loans. \$50 million annually between 2018 and 2022. USDA administers.	Agricultural producers, rural small business owners, rural electric utilities. Broad project eligibility on energy efficiency and renewable energy systems.

Speakers

- Abbie Hasenfus, Renewable Energy Programs Manager, Rhode Island Office of Energy Resources
- Kari Heinrich, Energy Assurance and Technical Assistance Lead, Wisconsin Office of Energy Innovation



STATE OF RHODE ISLAND

OFFICE OF ENERGY RESOURCES

Rhode Island Agricultural Energy Program

Abbie Hasenfus

June 8, 2023

Agenda



Overview of the RI Agricultural Energy Program



Case Study – Verde Vineyards



Leveraging funding opportunities



USDA REAP



Start-ups and Residential Benefit



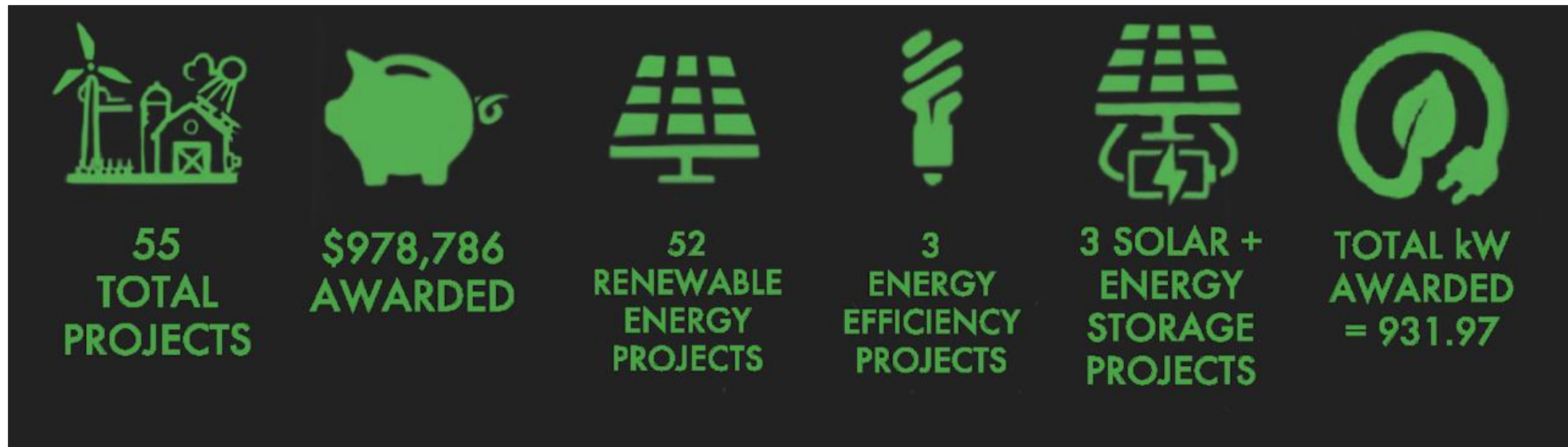
RI Agricultural Energy Program

Fall 2023 Deadline: Friday, October 20th

RI Agricultural Energy Program – at a glance

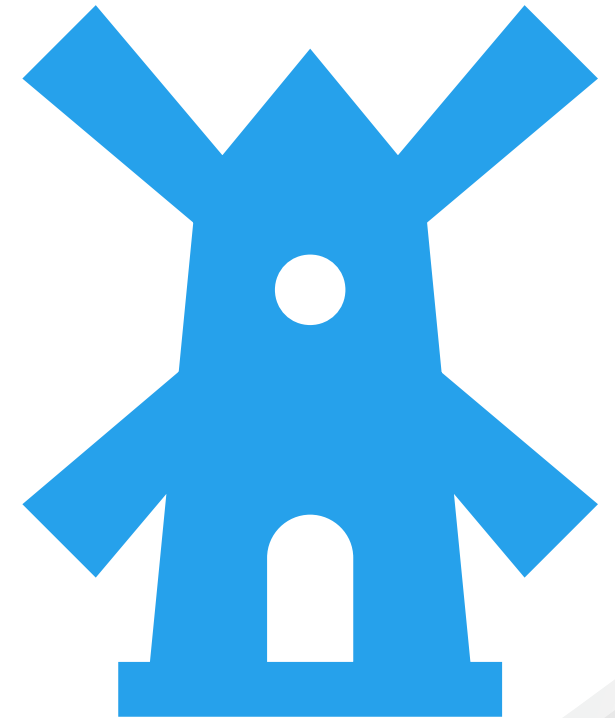
Provides grants to farmers in Rhode Island of up to \$20,000 for Renewable Energy and Energy Efficiency Projects

Since 2016:



Project Eligibility Criteria and Requirements

- Renewable Energy:
 - Solar PV
 - Wind
 - Biomass
 - Energy Storage
- Energy Efficiency
 - HEAT PUMPS!! (air-source, ground-source, heat pump water heaters)
 - Envelope insulation
 - LED lighting
 - Automatic temperature controls
 - Variable speed motors
 - drives & pumps
 - Solar thermal



Case Study – Verde Vineyards

- Verde Vineyards has implemented 3 different clean energy projects:

1. 10.56kW Solar Array
2. Geothermal heating and cooling system
3. 40kWh battery backup

Verde Vineyards now runs on 100% clean energy, with backup power to increase climate resiliency from power outages. Wine storage is very dependent on backup power!!



<https://youtu.be/KGgyi1RyWlg>

Leveraging Funding Opportunities

RI AgEP

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graph TD; A[RI AgEP] --> B[Renewable Energy Fund solar grant]; B --> C[USDA - REAP]; C --> D[30% Federal Investment Tax Credit];
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Renewable Energy Fund solar grant

USDA - REAP

30% Federal Investment Tax Credit



USDA - Rural Energy for America Program

- **Guaranteed loan financing and grant funding** to agricultural producers and small businesses for renewable energy systems or to make energy efficiency improvements.
- What is an "eligible area"?
 - Agricultural producers can be in rural or non-rural areas.
 - Small businesses must be in rural areas with populations of 50,000 or fewer
- How can funds be used?
 - Funds can be used for renewable energy systems such as:
 - Small-and-commercial scale solar generation
 - Small-and-commercial scale wind generation
 - High efficiency HVAC systems, such as heat pumps
 - And more!
- How can you get started?
 - REAP applications are now accepted quarterly in your local USDA Rural Development Office

Start-Ups and Residential Benefits



Residential benefit is "allowable" under RI AgEP, but not encouraged – we recognize start-ups and smaller operations are very common in RI



USDA REAP does NOT allow any residential benefit in the configuration of the system



Farmers who plan to apply to both programs in tandem must isolate agricultural energy load prior to submitting an application

Abbie Hasenfus

Renewable Energy Programs
Manager

RI Office of Energy Resources

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Wisconsin's Office on Energy Innovation Rural and Agricultural Program

June 2023



Wisconsin Office of Energy Innovation

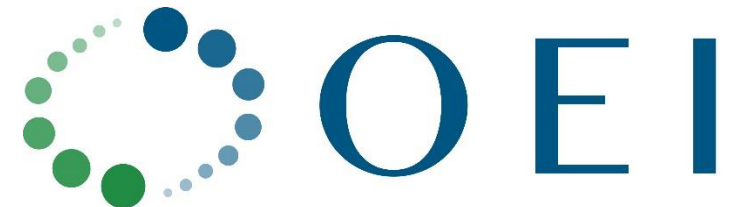
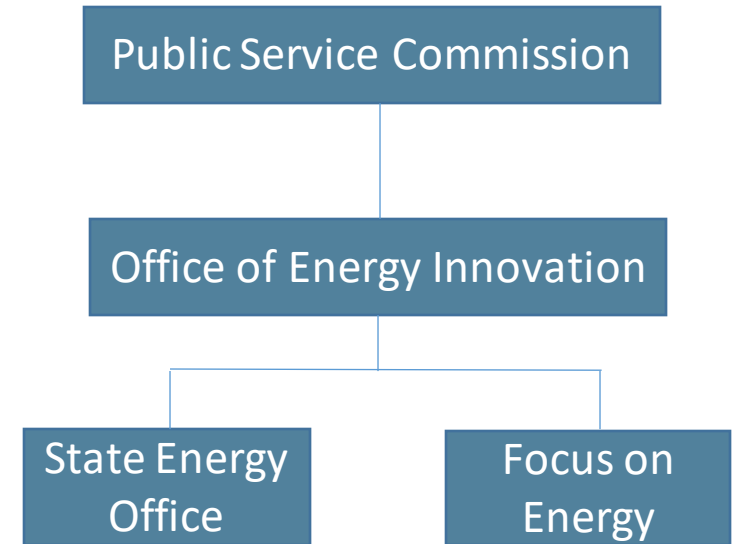
OEI Mission:

Developing Wisconsin's energy landscape to be secure, environmentally responsible, and growing the state's economy for all.

OEI Programs:

- [State Energy Office](#)
 - **Federally-funded:** Grants, Technical Assistance, Energy Statistics & Data, Energy Security
- [Focus on Energy](#)
 - **Utility ratepayer-funded:** Incentives, Technical Assistance, Training, Trade Ally Support

Contact OEI: OEI@Wisconsin.gov



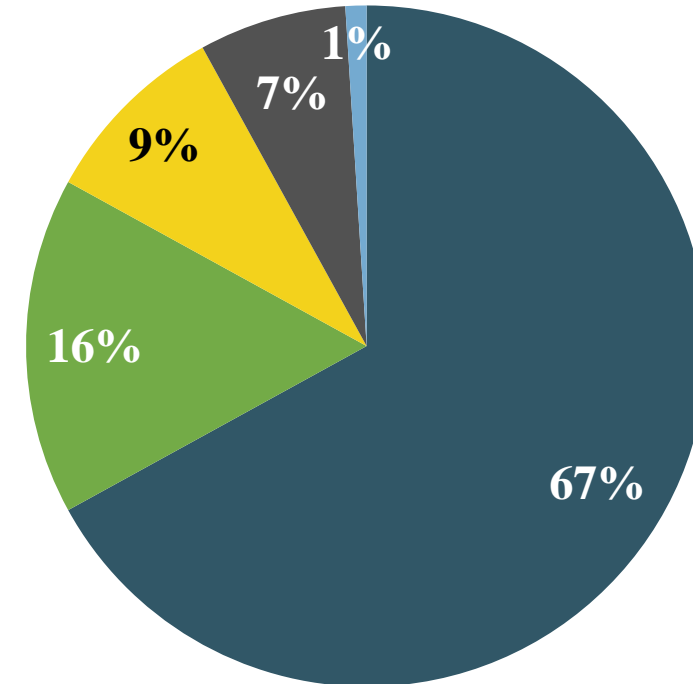
Focus on Energy

- Wisconsin utilities' statewide program for energy efficiency and renewable energy
- 107 participating utilities- all investor-owned utilities and municipal utilities, 11 of 24 electric cooperatives
- Focus provides financial incentives, education, information, and other resources to encourage participation and project implementation

Situation

- Focus on Energy seeks ways to encourage rural customer participation and economic development
- Crop drying contributes to variable propane usage, which poses an energy assurance concern
- Limited funds available to support propane efficiency

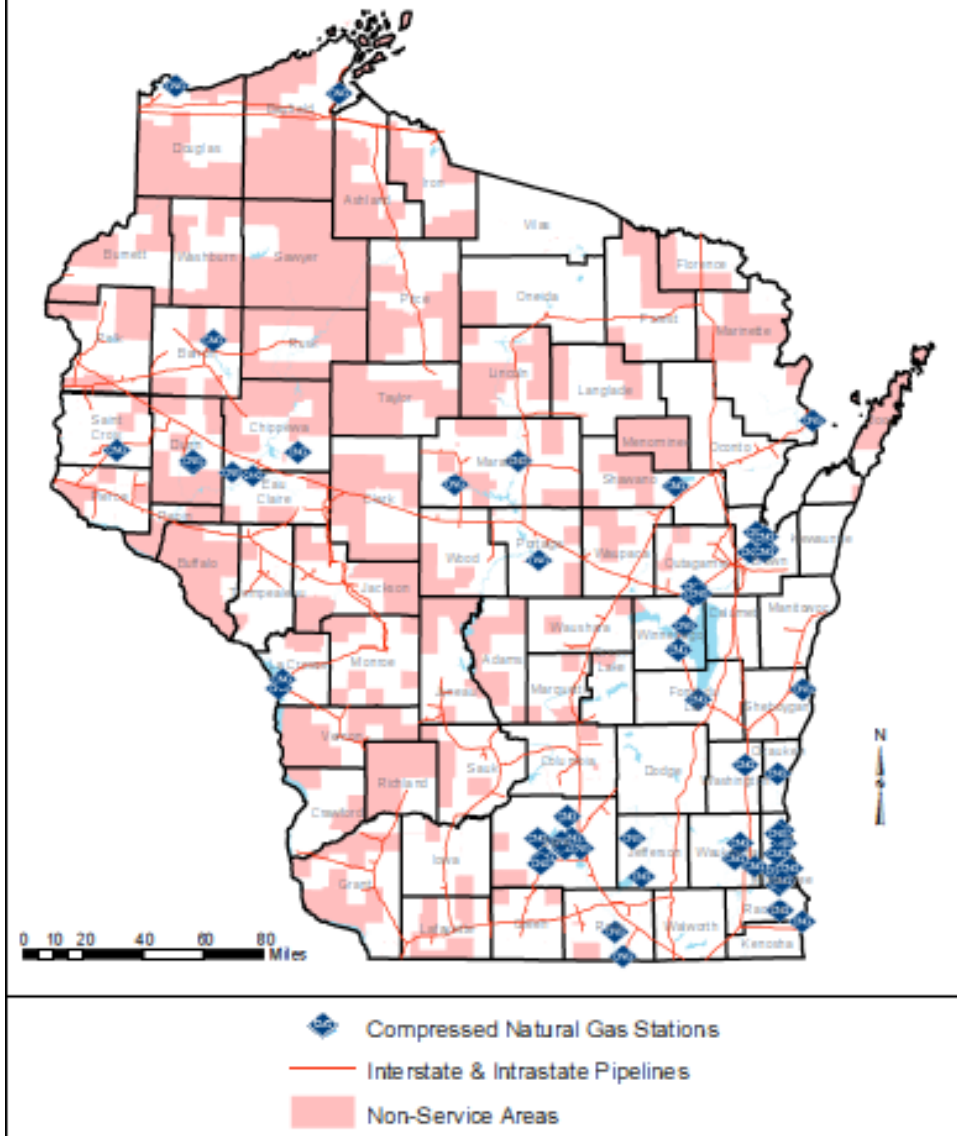
Wisconsin Liquefied Petroleum Use by Economic Sector



■ Residential ■ Industrial ■ Commercial ■ Agricultural ■ Transportation

Source: U.S. Energy Information Administration,
<https://www.eia.gov/state/seds/seds-data-complete.php?sid=WI#Consumption>

Wisconsin Natural Gas Pipelines, Non-Service Territories & Compressed Natural Gas Stations



Rural and Agricultural Program Objectives

- Support rural customers’ access to Focus on Energy benefits
- Increase energy assurance by targeting equipment with variable propane usage affecting heating season supply
- Encourage projects with strong per-measure propane savings potential

Outreach & Marketing

- Program webpage: focusonenergy.com/propane
- Program fact sheet: [Propane- Fueled Equipment Insert](#)
- Energy Advisor outreach to trade allies and customers
- Radio spots, Sponsorships/memberships with Farm Technology days, WPS Farm Show, Dairy Business Association, Professional Dairy Producers of WI



Who's Eligible?

- Farms using propane: residential and agribusiness
- Program compliments other incentives available outside of this program for rural customers (based on zip code)

Must work with a Focus on Energy **Energy Advisor** and have electric service through a **Focus-participating utility**

What's Eligible?

2023 Prescriptive Incentives

Equipment	Incentive
Boilers & Heaters	\$1-\$5/MBh
Furnaces	\$100-\$270 per furnace depending on efficiency
Water Heaters	\$500
Refrigeration Heat Recovery Units	\$750/unit
Grain Dryers	\$16/Bushel/hr drying capacity

Custom incentives also available for projects outside this list, \$1 per gallon propane

Success: Roehl Acres Farm

2022 Wisconsin Farm Technology Days Site Host

Focus on Energy/Rural & Ag Incentives

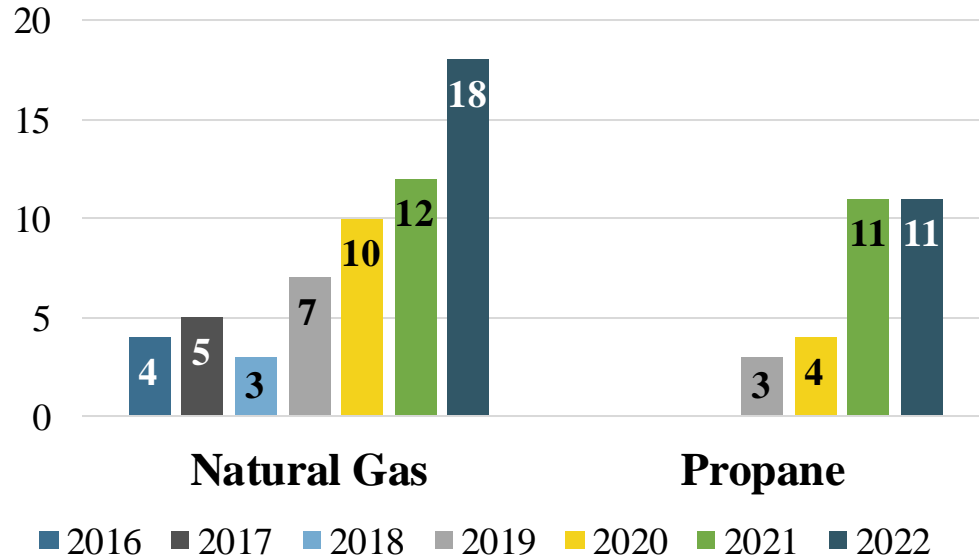
\$4,000 electric

\$1,440 propane



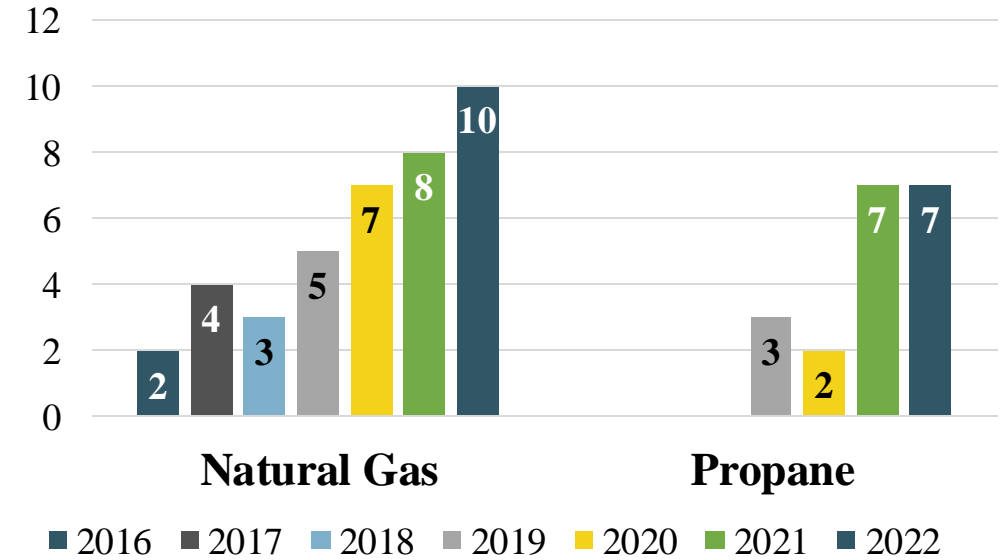
Success: Crop Dryers

Participating Customers



2019-2022 propane savings = 385,000 gallons
 Enough to heat **528 WI homes**

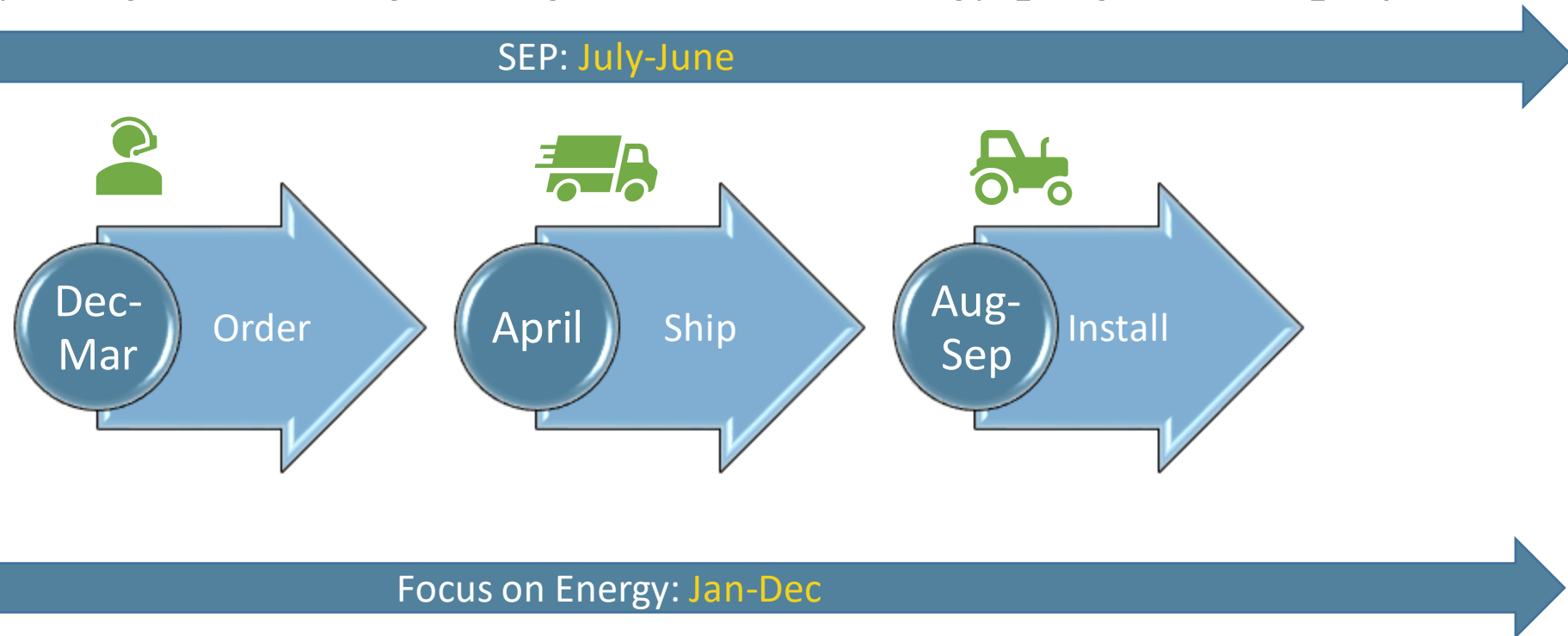
Participating Trade Allies



Trade allies appreciate promoting efficient dryers **across heating fuel types**

Challenges and Lessons

State Energy Program funding timing \neq Focus on Energy program and project timing



Solution: removed pre-approval requirement, align program implementation contract to 3-year SEP fund cycle

Upcoming Webinars & Working Group Meetings

- **Tuesday, August 15, 2023, 3:00 – 4:00 pm ET: Webinar (States and Affiliates)**
 - 4:00 – 4:30 pm ET: State and Territory Energy Offices-only forum
- **Tuesday, November 14, 2023, 2:00 – 3:00 pm ET: Webinar (States and Affiliates)**
 - 1:30 – 2:00 pm ET: State and Territory Energy Offices-only forum

Also of interest --

NASEO Webinar: Fostering Economic Diversification in Coal Communities

June 15, 2023, 3:30 - 4:30 PM ET



Thank you!

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