

Rural Energy Affordability Solutions National Governors Association Webinar

April 2, 2020



Coronavirus Questions

- ▶ If any state staff require technical assistance or have pressing questions, please email myself at mrogotzke@nga.org
- ▶ What are the main ways you are seeing COVID-19 intersect with energy issues in your state?
- ▶ Upcoming webinar will focus on COVID-19 impacts and we plan to focus on its impacts to energy security and energy demand broadly. If you have any suggestions for relevant material, again please contact me.



NGA Rural Energy Affordability Roundtable

- ▶ March 10, NGA held Expert's Roundtable on Rural Energy Affordability Solutions
 - ▶ Funding and Financing
 - ▶ USDA is a main funder for projects, but states can help fill in gaps
 - ▶ Existing community organizations can be leveraged to reduce household energy burdens
 - ▶ Policy Solutions
 - ▶ Working with utilities is essential for energy efficiency programs. Establishing formalized relationships is critical for designing effective policy solutions
 - ▶ Outreach and Education
 - ▶ Rural customers do not always need money! Sometimes it is most helpful to engage customers and educate about available options and streamline processes



Today's Panelists

▶ **Moderator:**

▶ **Matt Rogotzke**, National Governors Association

▶ **Panelists:**

▶ **Michael Turner**, Colorado Energy Office

▶ **Mary Shoemaker**, ACEEE





Harvest the Green: Colorado Agricultural Energy Efficiency Program and Energy Smart Agriculture

Michael Turner

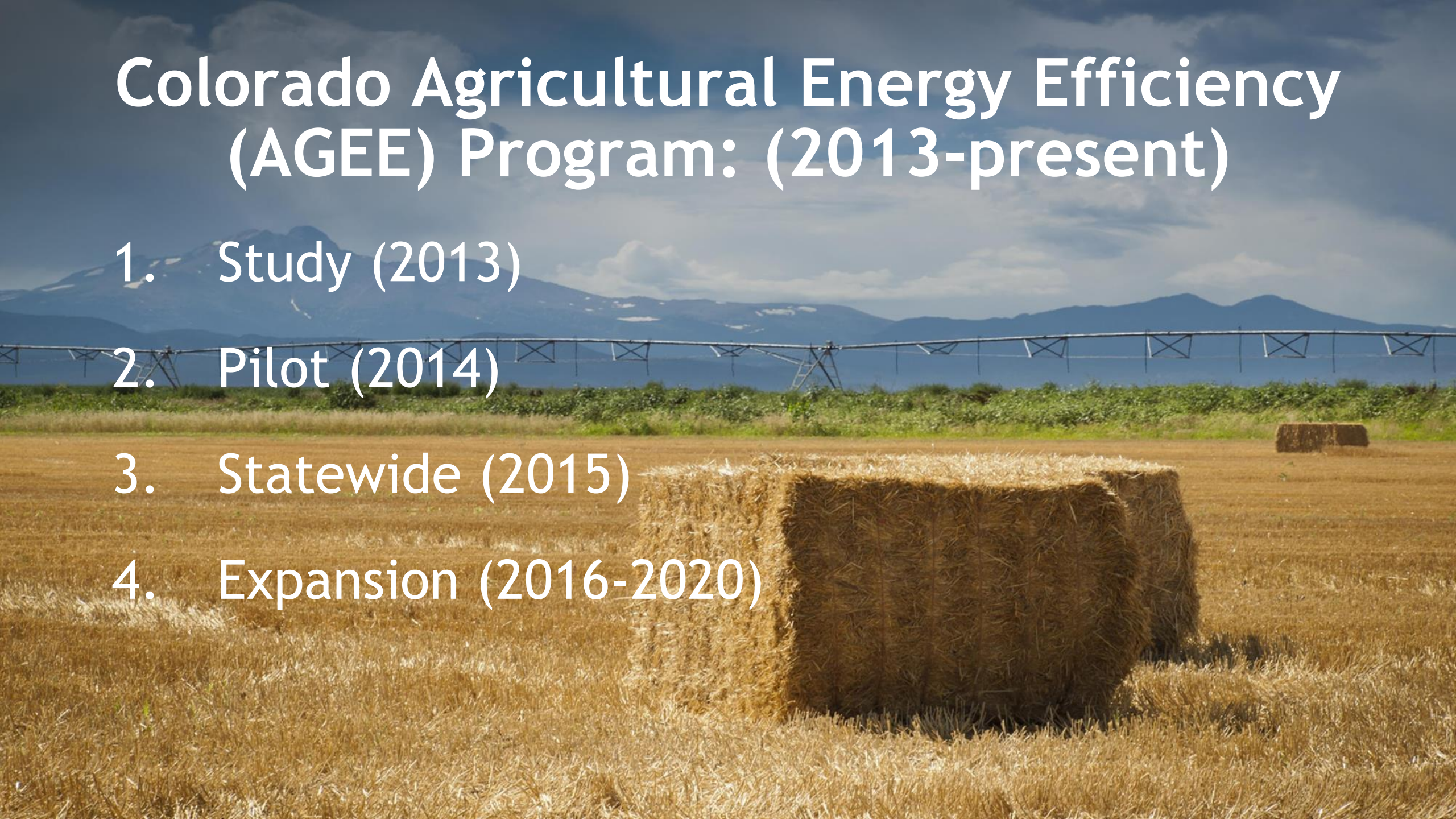
**Director, Building Innovation & Energy Finance
Colorado Energy Office**

Key Points

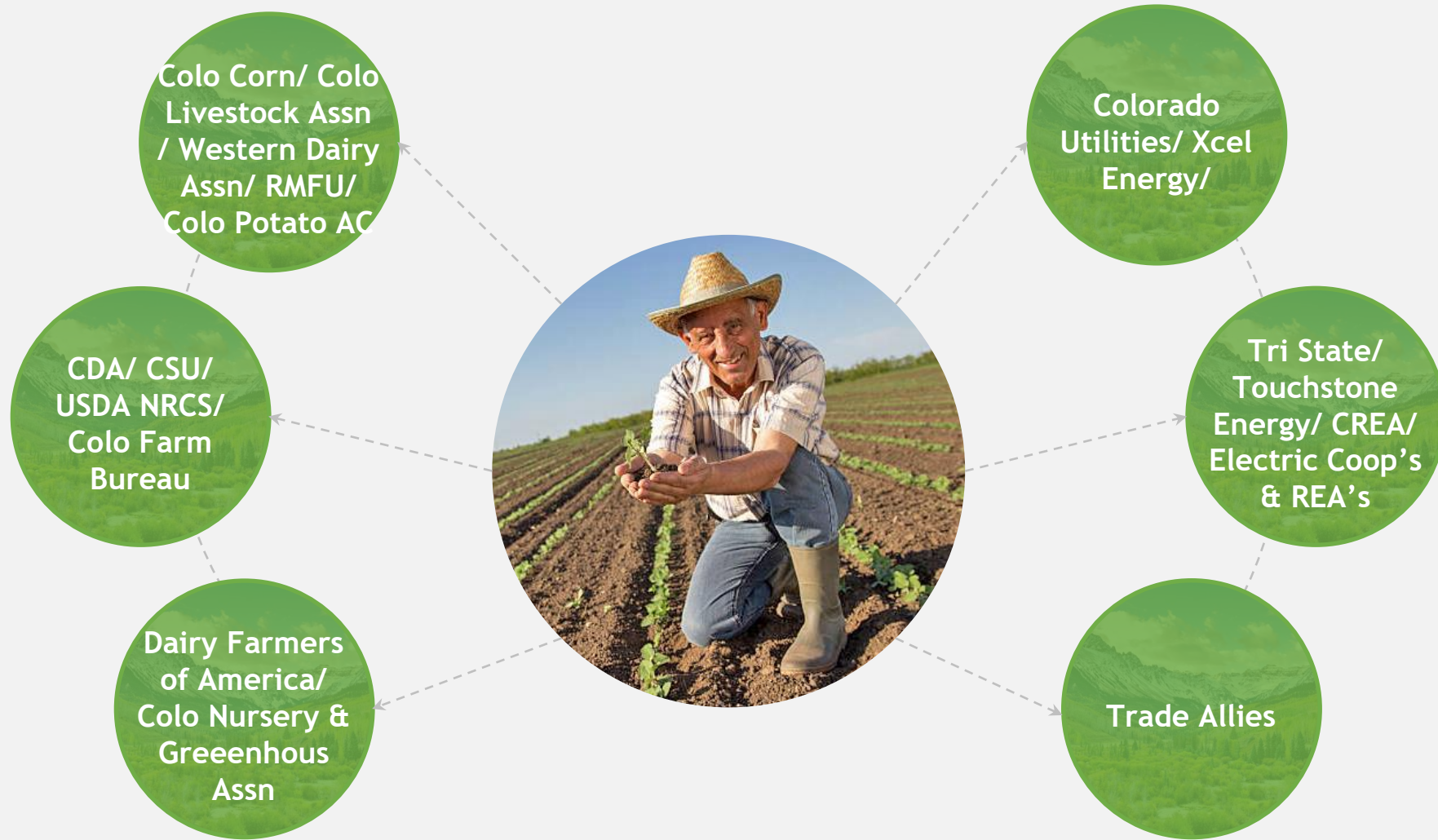
- History of Program: *Foundation in market research and stakeholder input*
- Streamlined and turnkey approach
- Emphasis on project implementation, access to funding, and stakeholder engagement
- AgEE is linchpin to rural Colorado

Colorado Agricultural Energy Efficiency (AGEE) Program: (2013-present)

1. Study (2013)
2. Pilot (2014)
3. Statewide (2015)
4. Expansion (2016-2020)



Program Partners



2018-2020 Energy Smart Agriculture Initiative

Statewide AgEE Program

Program Participants receive:

➤ Phase I

- *FREE* energy audit
- Renewable energy assessment (optional)
- Technical support

➤ Phase II

- Facilitate access to financial assistance (CDA, USDA, Utility rebates, CEO incentives)
- Implementation support and verification



Colorado AgEE Program: Statewide

Phase I:

- No Cost Energy Audit
 - Baseline Energy Report
 - Current Energy Usage
 - Conservation Practice Alternatives: EE
 - Conservation Practice Alternatives: RE
- Renewable Energy Assessment
 - Solar thermal
 - Solar PV
 - Ground source heat pumps





Colorado AgEE Program: Statewide Phase II: Implementation

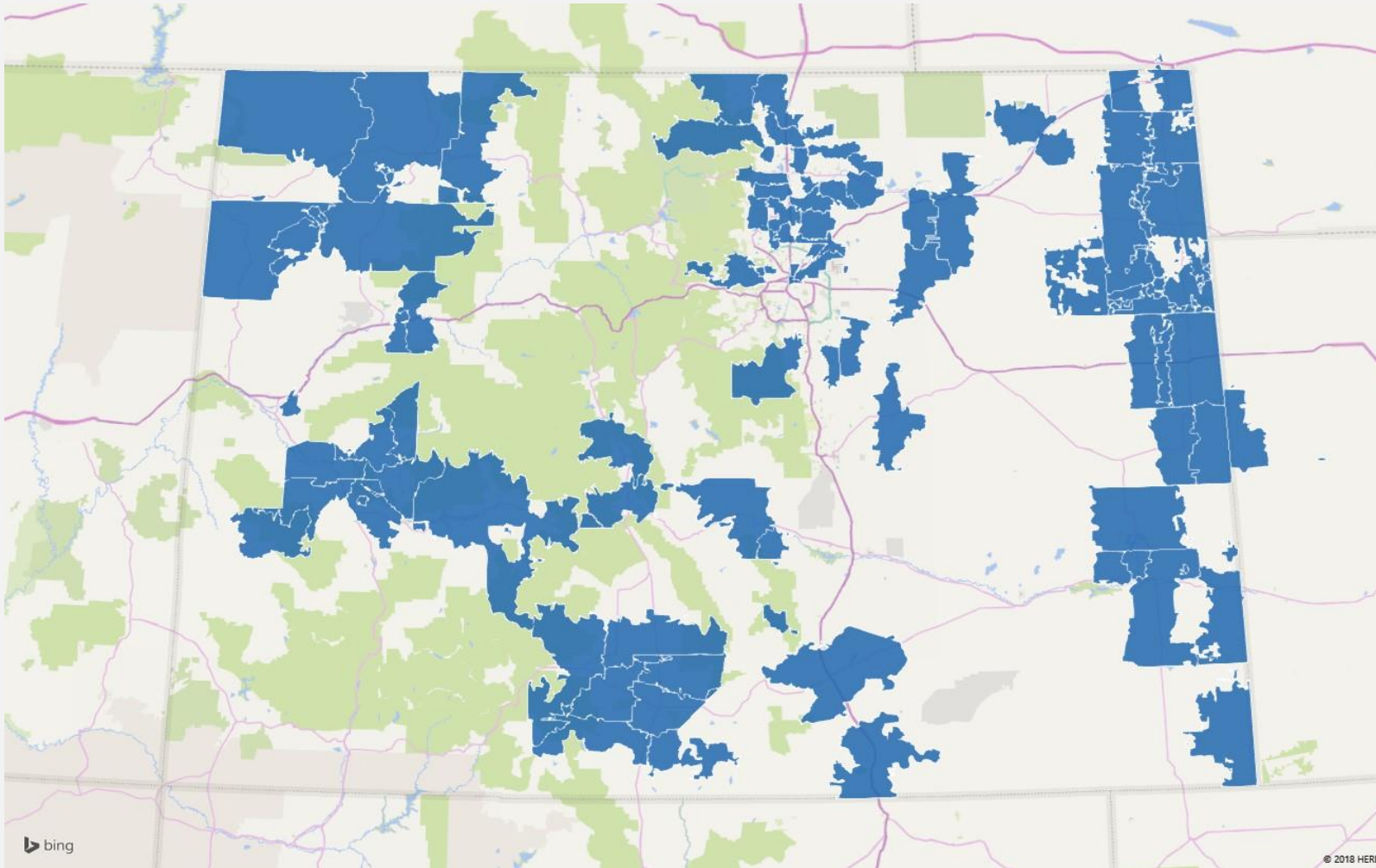
- Energy Coach Services
 - Planning and implementation discussion
 - Project implementation services (quotes, funding options and integration)
 - Project installation verification

Funding Options

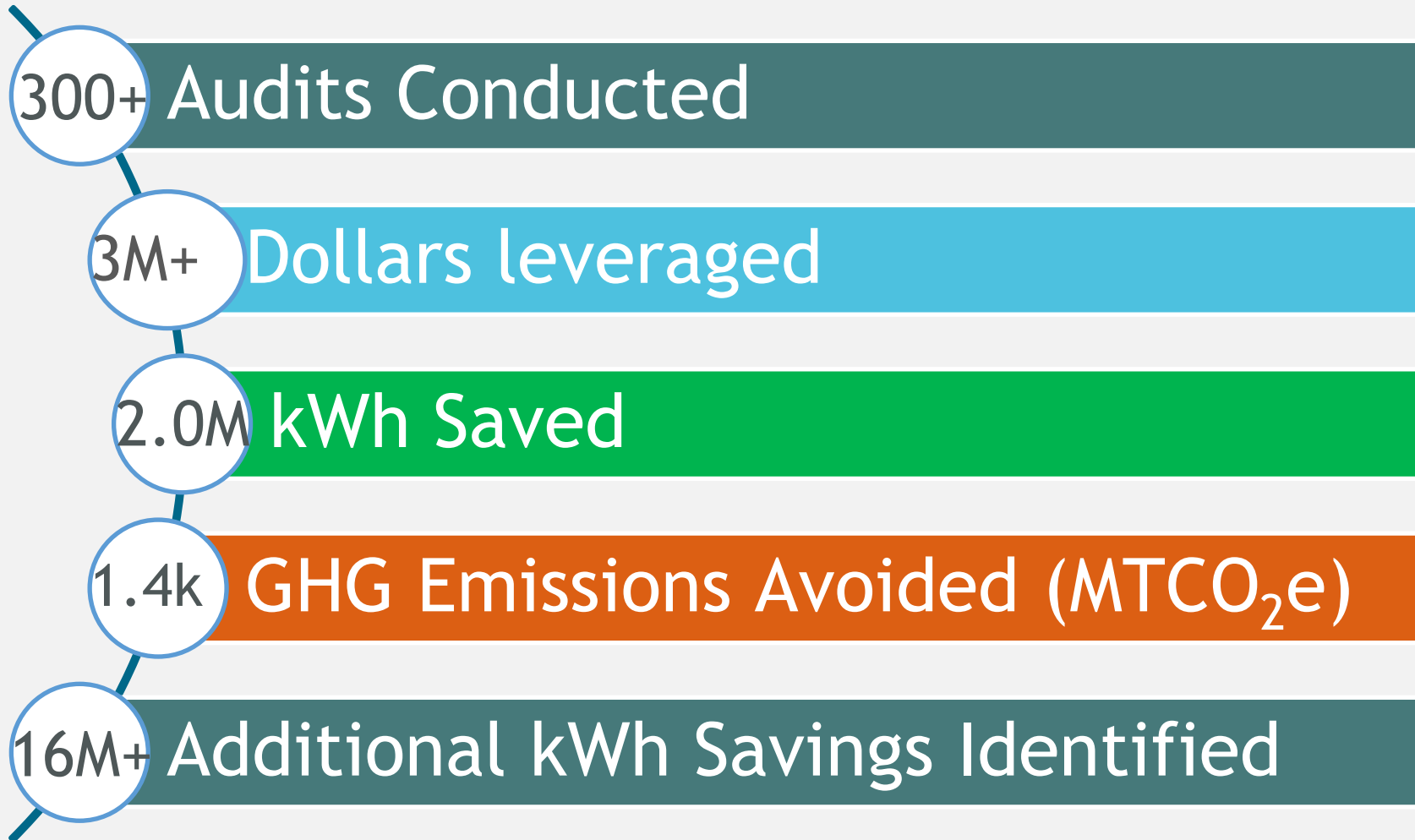
CEO Incentives	<ul style="list-style-type: none">• Incentives for pre-approved measures
Utility Rebates	<ul style="list-style-type: none">• Prescriptive and Custom tracks
Grants	<ul style="list-style-type: none">• NRCS EQIP/ RCPP Grants<ul style="list-style-type: none">• Up to \$250,000 per project• REAP Grants<ul style="list-style-type: none">• 25% of project costs up to \$250,000• CDA ACRE3 Grants<ul style="list-style-type: none">• Up to \$50,000 per project
CPACE	<ul style="list-style-type: none">• Lien on property, loan from property taxes
Private Loans	<ul style="list-style-type: none">• Credit Unions, Banks, Utilities

Impact on Colorado

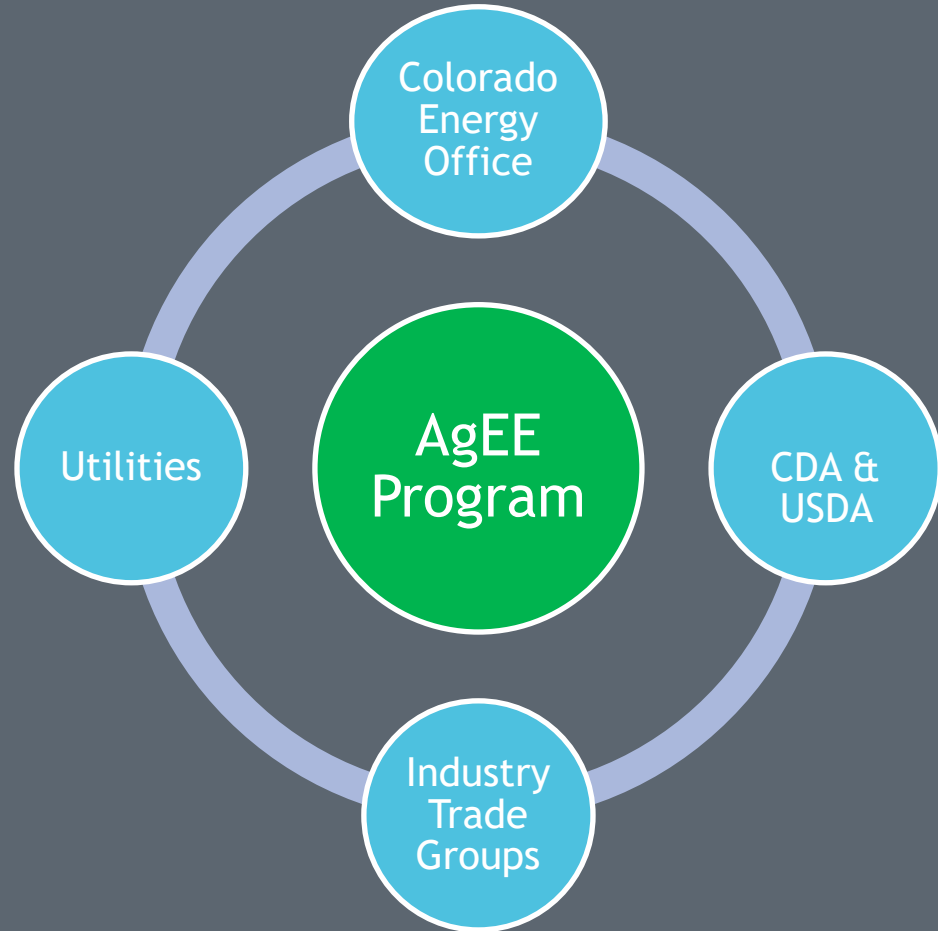
36 Counties Reached



Impact on Colorado



Energy Smart Agriculture & Rural Engagement





Thank you!
Michael.a.turner@state.co.us

Energy Efficiency as a Tool for Enhancing Rural Prosperity

NGA Rural Energy Affordability Webinar

Mary Shoemaker

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American Council for an Energy Efficient Economy

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April 2, 2020



The American Council for an Energy-Efficient Economy is a nonprofit 501(c)(3) founded in 1980. We act as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors.

Our research explores economic impacts, financing options, behavior changes, program design, and utility planning, as well as US national, state, & local policy. Our work is made possible by foundation funding, contracts, government grants, and conference revenue.

aceee.org @ACEEEdc

ACEEE
American Council for an Energy-Efficient Economy

ACEEE's Rural Energy Initiative

- Historic focus on agricultural energy efficiency
- Equity in energy efficiency program delivery
- **Goals**
 - **Identify successful rural EE programs and policies**
 - **Disseminate best practices**
 - **Provide technical assistance**
 - **Convene and connect**
- Partnerships with state policymakers, utilities, and efficiency program implementers.



What is an energy burden?

What is an energy burden?

$$\text{Energy burden \%} = \frac{\text{Annual energy costs}}{\text{Annual household income}}$$

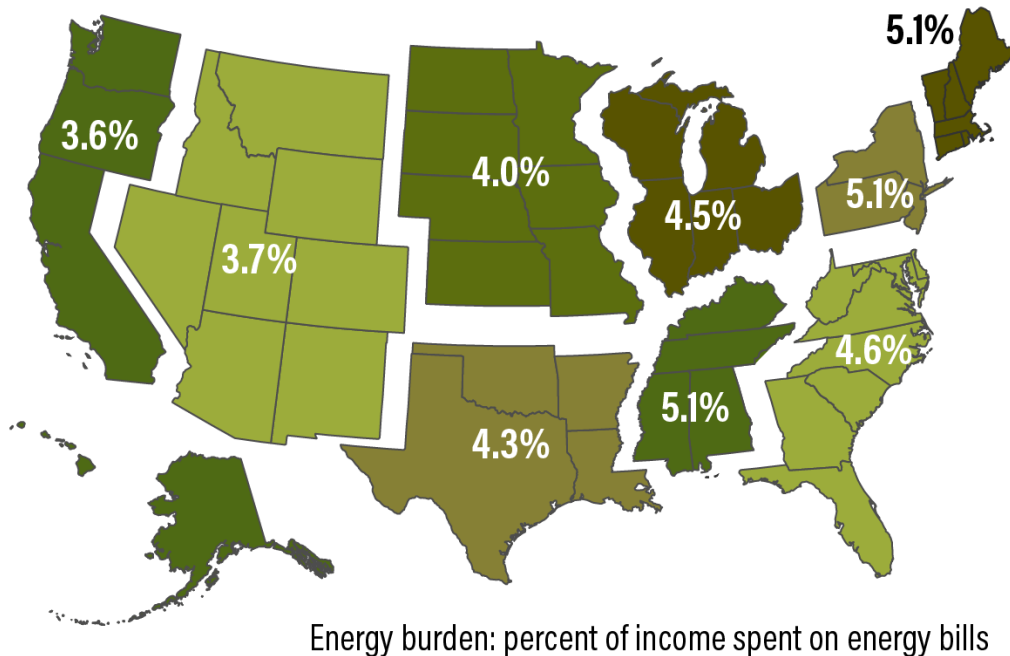
- **Drivers:** Physical, economic, policy, behavioral
- **Impacts:** Health, economic, social

*E.g. (\$200/month) * 12 months / \$60,000 = 4%*

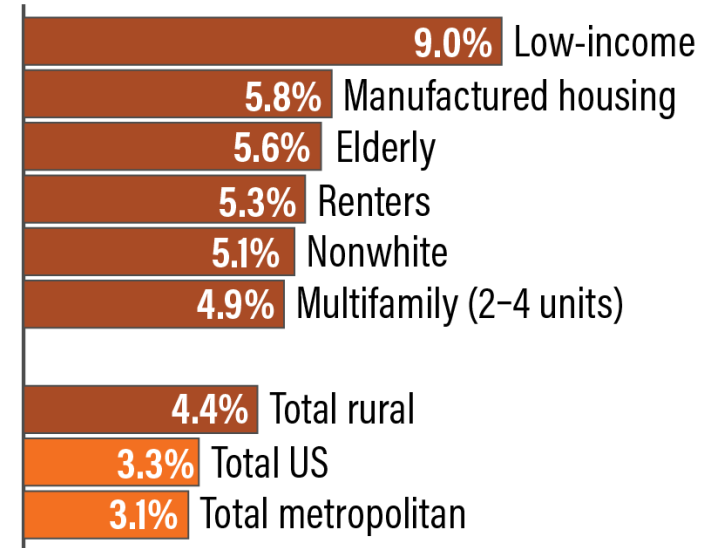
Why do energy burdens matter in rural communities?

Rural energy burden

By region



By demographic*



*Based on national figures.

Energy efficiency and rural energy burdens

- Long-term solution to high burdens
- Provide bill savings for households
 - Can lower burdens by 25% and save households up to \$400/year
- Additional benefits such as improved public health and local job creation.

Low energy prices do not equate to affordable bills!



How can State Energy and Governors Offices address rural energy affordability?

- Offer energy efficiency programs for rural residents, businesses, farms, and/or institutions
 - Florida Office of Energy
- Help coops and munis stand up their own EE programs
 - Iowa Economic Development Authority
- Develop rural energy plans or include rural-focused goals in state energy plan
 - Michigan Department of Environment, Great Lakes, and Energy *Agriculture and Rural Communities Energy Roadmap*



Photo Source: [Florida Office of Energy](#) 24

A snapshot of federal funds for rural energy efficiency

- U.S. Department of Agriculture
 - Rural Energy Savings Program (RESP)
 - Rural Energy for America Program (REAP)
 - Energy Efficiency and Conservation Loan Program (EECLP)
- U.S. Department of Energy
 - Weatherization Assistance Program (WAP)
 - State Energy Program (SEP)
 - Industrial Assessment Centers (IACs)



The logo for the Rural Energy Conference 2020 features the words "RURAL ENERGY" in a bold, black, sans-serif font, with "CONFERENCE 2020" in a smaller, black, sans-serif font below it. To the right of the text is a stylized graphic of four curved, overlapping lines in shades of green, suggesting a landscape or energy flow.

RURAL ENERGY Takeaways

CONFERENCE 2020

- Rural community members need a seat at the table when EE programs are being designed
- EE is a tool for rural economic and workforce development
- Leverage beneficial electrification to deploy rural EE
- Utilities need access to capital that works for them
- Find a trusted messenger for reaching rural customers
 - Houses of worship, utilities, local farm bureaus
- Aggregation is key
 - Utilities, EE program participants, and workers

Rural Energy Efficiency Resources

- 2020 Rural Energy Conference presentations:
www.aceee.org/2020-rural-energy-conference
- Rural Energy Burden report:
www.aceee.org/research-report/u1806
- Rural EE Programs report:
www.aceee.org/research-report/u1807

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Challenges to rural efficiency program delivery

- Low population density
- Financial constraints
- High costs
- Unfamiliarity with energy efficiency
- Shortage of local workers and lack of expertise
- Insufficient outcome data
- Lack of broadband access

Questions for Panelists

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