

**Testimony of Cary Weiner
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**U.S. House of Representatives Select Committee on the Climate Crisis
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Madam Chair and committee members, thank you for providing me with an opportunity to speak with you here today. My name is Cary Weiner. I have been the State Energy Specialist for Colorado State University Extension for the last nine years and served as Director of Colorado State University's Rural Energy Center for the last seven. I have also worked as Renewable Energy Planner for the City of Santa Fe, New Mexico. In these roles, I have implemented sustainable energy measures and consulted with a variety of stakeholders on sustainable energy. My testimony today represents my own views as a specialist in the field.

In my experience, I have found that both utility-scale clean energy development and community-based, collaborative approaches to sustainable energy are key to maximizing benefits to rural areas. Driven by our mission of empowering Coloradans, CSU Extension's work has focused on the community-based, collaborative framework which I'll highlight through two examples.

First, we have conducted community energy assessments for several small towns in Colorado. These assessments provide local leaders with snapshots of funding and technical assistance opportunities available to them that align with their needs and goals. We have done these assessments in farm towns, in mountain towns, and now even in a coal town. Some communities are motivated by climate change while others just want to save money for their taxpayers.

In Buena Vista, a small but growing town in central Colorado, we engaged the local Chamber of Commerce, realtors, non-profits, energy contractors, and utilities in our assessment process. Two of our main recommendations were to switch to more efficient lighting in town buildings and to install electric vehicle charging stations near the downtown area. In doing the lighting retrofits, the town hired a local contractor, took advantage of rebates from its rural electric cooperative, and is saving an estimated \$4,000 per year in taxpayer money. In installing the EV charging stations, the town took advantage of a Charge Ahead Colorado grant from the state, supplied residents and tourists with places to recharge, and may have increased business near the charging stations while EV drivers charge their cars.

Turning to agriculture, CSU Extension has been the recipient of two USDA Rural Energy for America Program grants to conduct economic feasibility assessments for solar and wind at 60 farms across Colorado. The Rocky Mountain Farmers Union, Colorado Corn Growers, Colorado Energy Office, Colorado Department of Agriculture, and various rural electric cooperatives donated in-kind cost share to market the program statewide. Four of our participants have gone

on to apply for REAP grants of their own to install solar projects, and two were successful. The Weis family out of Holyoke, Colorado, for example, installed a 15 kilowatt solar array that saves ~\$1,500 per year on electricity for pumping water. They should recoup their investment in about 10 years.

What may seem to be modest energy savings for a given local government, farm, household, or business can add up to a strong, distributed network of environmental and economic benefits along with a sense of independence for rural Colorado¹. The Garfield Clean Energy program, for example, has helped 340 businesses, 1,200 households, and 34 government facilities complete energy upgrades through an innovative partnership between local governments, a community college, and a non-profit in one of the top natural gas-producing counties in the state². The Colorado Energy Office and the Colorado Department of Agriculture have engaged numerous stakeholders through USDA's Regional Conservation Partnership Program to save over 1 million kilowatt-hours across 200 farms in the state. And across the country, state Extension programs have formed the National Extension Energy Initiative to learn from one another how best to maximize impact in rural areas.

The federal government can strengthen community-based, collaborative approaches to rural sustainable energy in a few ways. Waiving or reducing the Rural Energy for America Program's cost-share requirement for small business energy audits could help rural businesses benefit from energy savings and provide local jobs. Continuing the Regional Conservation Partnership Program and streamlining the Rural Energy Savings Program will strengthen cooperation to help rural areas save energy and money. And restarting the pilot USDA-USDOE State Extension Energy Partnership Program or otherwise supporting Extension's capacity to meet local energy needs would be welcome. With a presence in nearly every county in the country and trusted relationships with key stakeholders, I believe Extension is well-positioned to coordinate and catalyze community-based, collaborative rural energy solutions³.

¹ In a 2010 article in *Energy Policy* entitled 'Putting Renewables and Energy Efficiency to Work', Wei and Kammen found that solar energy produces the most jobs per gigawatt-hour of energy generated (0.87), with landfill gas second (0.72) and energy efficiency third (0.38). Distributed solar and energy efficiency can typically be supported with local jobs and are often found in community-based, collaborative approaches to sustainable energy.

² Colorado Oil and Gas Conservation Commission: COGIS Database. Retrieved 7/29/2019 from <https://cogcc.state.co.us/data.html#/cogis>.

³ Colorado State University Extension has for over 100 years acted as an impartial consultant to the public on issues such as agriculture, natural resources, community development, and youth development. The Food & Agriculture Act of 1977 expanded Extension's scope to provide information to the public on renewable energy, and the Biomass Energy and Alcohol Fuels Act of 1980 expanded our scope to include work on rural energy. According to a 2016 article in the *Journal of Extension* entitled 'Opportunities for and Barriers to Renewable Energy Outreach in Extension', Thomas and Brain found that 26 states now have centralized or distinct Extension energy programs.

Appendix: Extension's Current and Potential Role in Sustainable Energy

(excerpts from 'National Energy Education Needs and Priorities: A Roadmap for the Cooperative Extension System' by the National Extension Energy Initiative, January 2018)

The National Extension Energy Initiative (NEEI) represents the primary energy professionals within the Cooperative Extension System (CES) from more than 30 states. NEEI is well positioned to assess and prioritize energy education needs that can best be addressed by CES educators/agents (with community-based education and applied research). NEEI leverages the CES network at the state, regional (multistate) and national levels by sharing expertise and fostering collective responses to a range of topics, including: energy development, energy efficiency, and renewable energy for urban and rural communities. Members of this professional affiliation group meet regularly via conference calls, webinars and annually at the National Extension Energy Summit. NEEI also seeks to partner with other organizations and agencies (e.g., USDA and DOE) with the goal of increasing the integration of CES education and research with collaborators. Areas of potential partnership include:

- Residential/citizen education on energy efficiency and conservation.
- Assistance to community organizations, local governments and public facilities with planning, priority-setting, and collaborative educational programming.
- Rural, on-farm, agricultural energy conservation/efficiency/independence, energy audits and applied research on energy consumption and evaluating alternatives.
- Small business development, including planning and tools for evaluating energy needs.
- Collaboration with State Energy Offices (SEOs) and State Energy Programs (SEPs).

CES has the ability to offer national experts, each with specific areas of expertise on a range of energy issues, problems and needs. Furthermore, our community energy education programs involve Extension educators who work closely with consumers, businesses, utilities and local government to develop and implement new sustainable energy practices. An important strength of CES is to meet unique needs with education and research at a local-community scale. CES also has developed educational materials and publications, core curriculum, and uniform outreach strategies that are often shared nationally within the land-grant university network and with other agencies and stakeholder groups.