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Select Committee on the Climate Crisis

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"Colorado's Roadmap for Clean Energy Action: Lessons from State and Local Leaders"

Questions for the Record

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The Honorable Kathy Castor

1. **In your testimony, you mentioned that the Rural Energy for America Program and the Rural Energy Savings Program should be updated and revised. Could you please describe in more detail how these programs could be improved?**

The Rural Energy for America Program (REAP) has incentivized energy improvements across the country by offering grant funding for projects, energy audits, and renewable energy development assistance. Colorado State University Extension has been the recipient of two REAP grants in the last five years that have allowed us to provide renewable energy development assistance to farmers in Colorado. Specifically, we have conducted economic feasibility assessments for solar and wind energy at 60 farms across the state. These assessments provide detailed estimates of the financial costs and benefits of installing solar or wind on-farm, including a 20-year cash flow, identification of potential tax implications, and phone calls to discuss results.

I believe that interest has been high in our assessments for a number of reasons such as falling solar prices, tax credits that will decrease in coming years, and perceived cost savings from solar energy when compared to utility electricity. I also believe that the free cost to participate has played a significant role in attracting farmers to the assessment program. Because energy efficiency often offers a quicker return-on-investment than renewable energy, we have considered expanding our offerings from just renewable energy development assistance to include energy audits through REAP. But we have decided not to apply for a REAP grant to conduct energy audits because participating agricultural producers and small businesses would be responsible for a 25% cost share.

Although it seems reasonable to ask for producers and business to contribute to the cost of audits, I believe that the cost share requirement may actually prohibit these entities from participating. If we were to charge $1,000 for an audit to recoup costs from travel and staff time, for example, a 25% cost share would mean that a farm or rural small business would have to pay

$250. But because few small businesses rural Colorado have received and acted upon energy audits, it is difficult to convince them that a $250 investment is worthwhile. A simple change to the REAP energy audit program eliminating or reducing the 25% cost share requirement could result in demonstrations of the effectiveness of energy audits as effective tools in managing energy costs. Once audits become more established as valuable tools in areas where they are currently not mainstream, perhaps the federal government could reinstate a 25% cost share.

In addition, of the 60 economic feasibility assessments we conducted for on-farm renewable energy, four went on to apply for REAP grants to install projects on their farms. Of these four applicants, only two were successful. Although the economic feasibility of the two farms that were rejected was comparable or better than the two successful recipients, they were not funded. And like with energy audits in some parts of rural Colorado, renewable energy projects on-farm are still in need of demonstration and successful case studies. Expanded REAP funding for on-farm renewable energy projects in particular would allow for more projects to be installed and more case studies to be established, which in turn will increase interest and further the goal of the program.

As far as the Rural Energy Savings Program (RESP), the program can have tremendous benefits for rural energy users. Rural electric cooperatives can borrow funds from USDA's Rural Utilities Service at 0% interest for re-lending to cooperative members for energy improvements. Some utilities can use this program to start on-bill financing programs for members, which can make energy improvements more financially attainable and seamless than other options such as borrowing from another lender.

My suggestion regarding RESP comes from discussions with two rural electric cooperatives who have participated in the program. In both cases, the utilities pointed out that while reasonable precautions were taken by USDA around the application process, once the applications were approved there is a very significant time lag before funds are received by the utilities (as borrowers). In the case of Highline Electric Association, for example, there was a two year period between when they were approved into RESP and when they could access the funds (1). Looking into ways to expedite access to funds for approved RESP participants would both make funds available for energy projects in a more streamlined manner and also incentivize participation from more utilities that perhaps are put off by the current lengthy process.

2. **You also suggested that the USDA-USDOE State Extension Energy Partnership Program should be restarted. Could you please describe this pilot program, its successes, and your recommendations for how this program should be implemented if it were to be restarted?**

The State Energy Extension Partnership (SEEP) program was developed based on a Memorandum of Understanding (MOU) between the US Department of Energy (DOE) and the US Department of Agriculture's (USDA) National Institute of Food and Agriculture. This effort was a project of the State Energy Advisory Board, which was established by the State Energy Efficiency Programs Improvement Act of 1990 to advise DOE on the operation of its federal grant and clean energy programs (2). The explicit purpose of SEEP was, "… to identify issues, develop solutions, and share promising practices collaboratively across organizational,

geographic, and programmatic boundaries to promote energy efficiency and renewable energy." This partnership funded an initial cohort of State Energy Office and Extension collaborations in Wisconsin, Nebraska, and Kentucky with DOE awards of ~$200,000-$250,000 over a three-year period from 2012-2015 (3).

The Wisconsin SEEP program formalized the collaboration between Wisconsin's State Energy Office and UW-Madison Extension with an MOU to better integrate their roles in helping create transformational change toward a clean energy economy in the state. UW Extension engaged local governments, tribes, businesses, farms, and county-based Extension educators in energy efficiency, renewable energy, and bio-energy education and projects. By training Extension agents and supporting community leaders, the partnership between UW Extension and the Wisconsin Energy Office built capacity for energy education and community planning as well as a formal structure for collaboration on energy issues which continues today (4).

SEEP programs in Nebraska and Kentucky also increased the capacity of Extension to have local impact and forged meaningful partnerships with State Energy Offices. In addition to engaging over 2,000 farmers and crop consultants on irrigation energy efficiency, Nebraska Extension drafted a strategic cooperation document for future cooperation between UNL and the Nebraska Energy Office (5). In Kentucky, an Energy Efficiency Awareness and Action program expanded the capacity of Extension agents to engage in energy work, including helping residents and businesses better manage their energy bills and helping 4-H youth make their households more energy efficient (6).

If a SEEP program was to be restarted, it should focus on the unique strengths of State Energy Offices and Extension to build capacity for community-driven energy solutions. Both State Energy Offices and state Extension energy programs vary widely in size, scope, and focus. But in general, State Energy Offices excel at prioritizing energy issues of importance to state leaders and providing funds to implement priority projects. State Extension energy programs tend to focus on empowering residents, businesses, agricultural producers, and community leaders to address sustainable energy issues through planning, education, and technical assistance. Working together, State Energy Offices and state Extension energy programs can engage stakeholders in collaborative energy initiatives and provide funding for implementation of those initiatives. This work is critical to help communities of all kinds reduce greenhouse gas emissions in ways that respect unique local situations.

Both past SEEP pilot projects and existing Extension programs have provided a solid foundation from which to grow this community-based, collaborative approach. The University of Minnesota Extension's Clean Energy Resource Teams have conducted energy planning and implementation with local governments throughout the state. Colorado State University Extension has conducted numerous community energy assessments that identify and help acquire funding and technical assistance for local governments based on broad stakeholder input and community needs. A renewed SEEP program could build lasting relationships between State Energy Offices and Extension in order to broaden and deepen the impact of community-based collaborative energy planning and implementation across the country. Leveraging Extension's background to focusing on collaborative community energy planning and implementation in rural America could be an especially effective strategy for SEEP.

I would also make two more technical suggestions for a future SEEP program. First, it is my understanding that funds for the three pilot projects came from DOE. It may be worth revisiting the MOU between DOE and USDA to see how each agency might contribute more equally to future projects. Second, State Energy Offices were the only eligible primary applicant in the first SEEP Request for Proposals. I would recommend that either State Energy Offices or Extension programs could be listed as the primary eligible applicant in future SEEP RFPs.

References

1. Phone conversation with Dennis Herman, General Manager of Highline Electric Association. July 26, 2019.

2. State Energy Advisory Board. *US Department of Energy.* [Online] [Cited: September 5, 2019.] https://www.energy.gov/eere/steab/state-energy-advisory-board.

3. Email correspondence with Lissa Pawlisch, Director, University of Minnesota Clean Energy Resource Teams. September 4, 2019.

4. Email correspondence with Sherrie Gruder, University of Wisconsin Extension. September 4, 2019.

5. Email corresponndence with John Hay, University of Nebraska Extension. August 29, 2019.

6. University of Kentucky College of Agriculture. Kentucky Cooperative Extension recognizes Energy Awareness Challenge leaders. [Online] [Cited: September 5, 2019.] https://news.ca.uky.edu/article/kentucky-cooperative-extension-recognizes-energy-awareness-challenge-leaders.