

Written Testimony of Jeff Pratt
President of Green Power EMC
Before the United States House of Representatives
Committee on Agriculture
Subcommittee on Commodity Exchanges, Energy, and Credit

A Look at the Renewable Economy in Rural America

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Chairman Delgado, Ranking Member Fischbach and distinguished members of the subcommittee, on behalf of Green Power EMC and Georgia's electric cooperatives, thank you for the opportunity to testify on renewable energy growth across Georgia and the opportunities and challenges it presents for rural communities.

My name is Jeff Pratt and I am the president of Green Power EMC, the not-for-profit electric cooperative that secures renewable energy resources for the broader family of 38 Georgia electric cooperatives. Electric cooperatives (or, as we call them in Georgia, Electric Membership Corporations ("EMCs")) are not-for-profit electric utilities owned and operated by the communities they serve. In Georgia, electric cooperatives distribute power to their member-consumers – residents, businesses, and public institutions – approximately 4.3 million Georgians across 65% of the state's land area in 151 of 159 counties. Georgia's electric co-ops represent the largest group of cooperatives in the U.S. based on the number of end-use customers and their electrical load.

Around the country, there are approximately 900 electric cooperatives in 48 states serving 56% of the nation's landmass but only about 13% of the population. We operate in the most rural parts of the country and serve 92% of the country's persistent poverty counties. Our not-for-profit status and local control help us be nimble and innovative as we strive to meet evolving consumer demands.

Background

In 2001, long before it was popular to be "green," Georgia's electric cooperatives founded Green Power EMC to source renewable generation for the cooperative energy portfolio. Green Power EMC became the first renewable energy provider in the state of Georgia, aggregating the interest in renewables of small and large cooperatives alike, evaluating renewable energy alternatives, and recommending projects for cooperative participation.

In its early days, Green Power EMC procured energy from landfill gas projects. Later, Green Power EMC purchased power from Georgia's only certified run-of-river hydro facility. In 2010, Green Power EMC began purchasing energy from two of Georgia's first solar projects.

In 2015, through Green Power EMC, Georgia's cooperatives contracted for their first large-scale solar project – a 20-megawatt facility covering nearly 200 acres of land in South Georgia. In the past six years, Georgia's electric cooperatives have grown their solar portfolio by 8,000%, utilizing approximately 15,000 acres of land in rural Georgia. These solar projects will collectively produce enough electricity to serve more than 270,000 cooperative households each year. This growth is driven by market economics and consumer demand, without mandates by our state or federal government.

On behalf of its members, Green Power EMC continues to evaluate new solar opportunities as well as the potential for other renewable technologies including wind, biomass, and hydro projects. However, the significant decline in the cost of solar energy production equipment and the ample availability of sunlight in Georgia make solar energy the current most cost-effective means to provide affordable renewable power for our cooperatives.

From a federal perspective, 491 electric co-ops in 43 states use solar energy, with a combined capacity, including utility-scale and community solar, of 1,374.8 megawatts. In addition to solar, electric cooperatives have been engaged in other renewable resources for many years. Nationally, we have nearly tripled our total renewable capacity from 3.9 gigawatts in 2010 to more than 11.4 gigawatts in 2020. That's enough energy to serve nearly 2.7 million homes. Additionally, co-ops have announced more than 6.4 gigawatts of new renewable capacity planned from 2021 – 2024. Because of our geographic diversity, electric cooperatives are significant stakeholders in solar, wind and hydroelectric generation assets.

Challenges and Opportunities

Technology and Intermittency: Georgia's electric cooperatives are committed to reducing greenhouse gas emissions, without sacrificing reliable and affordable electric service. While solar is among the lowest cost of energy in Georgia, the intermittent nature of this generating resource presents technical and economic challenges as it becomes a larger percentage of our electricity generation portfolio. As the volume of solar energy increases, so do necessary investments in technologies such as battery storage and new energy management control systems to maintain expected levels of reliability. While these technologies are advancing rapidly, the investment required to deploy these technologies is significant and the effectiveness to ensure reliability and affordability on a utility scale is largely unproven. While we wait for battery storage technologies to be perfected, Georgia relies heavily on base load power such as nuclear generation, to provide 24/7 reliability to balance the intermittency of our large solar portfolio.

Transmission and Distribution: Georgia has one of the most robust transmission and distribution systems in the United States. The transmission system is unique because the infrastructure is shared among the state's utilities through a structure called the Integrated Transmission System, which comprises joint system planning and minimizes redundant equipment. We are accustomed to responding to changing market conditions with cost-effective and timely transmission system improvements. However, as higher levels of intermittent generation resources are connected to our transmission and distribution systems, it will be necessary to adjust our system planning and management practices, equipment, and control software to maintain current levels of reliability and resiliency.

A foundational program for most electric cooperatives in Georgia, and a key financial resource to help meet these transmission challenges, is the U.S. Department of Agriculture's Rural Utilities Service (RUS) Electric Loan program. Georgia's electric cooperatives utilize RUS loans for many basic functions of providing electricity to our state, such as building new distribution lines, installing smart meters, making environmental improvements to generation facilities, and strengthening transmission lines.

Programs like the RUS Electric Loan Program will help make many of these transmission system improvements possible. Many states may also take advantage of the new opportunities made available through the Infrastructure Investment and Jobs Act passed by Congress just a few days ago.

Co-ops and Federal Financial Incentives: Electric cooperatives are meeting today's energy needs and planning for the future, but historically we've been limited by the tax code and the costs of implementing new technologies. As not-for-profit businesses, current law does not allow electric cooperatives to access the full value of clean energy tax incentives available to taxable businesses, including investor-owned utilities. Electric cooperatives need access to "direct pay" tax incentives to reduce the cost of energy innovation projects, including the deployment of renewables, nuclear energy and other emerging technologies, the expansion of energy storage projects, and installation of electric charging infrastructure. This direct pay option is included as part of the clean energy tax credits in current drafts of the Congressional budget reconciliation bill.

The current draft of the budget reconciliation bill also includes a proposed voluntary \$10 billion USDA-based clean energy fund to assist electric cooperatives with outstanding debt on stranded generation assets or to facilitate the deployment of new clean energy sources. This program could help electric cooperatives grow green energy programs like we already have in Georgia.

Rural Economic Opportunity: Georgia's rural communities have realized great financial benefits from the growth in cooperative solar projects. These projects have created thousands of construction jobs for local citizens and contribute significant ongoing tax revenue for local economies and governments supporting health, emergency, and school services in rural communities across Georgia. In many cases, a large-scale solar project generates the largest tax revenue in the county.

Supply Chain: Rapid growth in demand combined with current global trade inefficiencies have increased the cost of solar equipment. Electric cooperatives are facing uncertainty about the availability of raw materials for all parts of our business, including the anticipated growth of our solar footprint in the coming months and years. This could be compounded by, and will need to be managed in concert with, the growth of new federal incentives to incentivize more rapid renewable deployment.

Balancing Land Use Demands: Despite these economic benefits, as investments in solar projects increase, some communities have been challenged to find a balance between the competing interests of solar land use and traditional farming operations. The majority of the land area ideal for solar energy facilities in Georgia is rooted in rural agriculture. Georgia's electric cooperatives have a long history of providing electricity to these agrarian communities.

Green Power EMC and its members, in partnership with solar developers and innovative local agricultural leaders, are employing regenerative agriculture practices at solar farms, including land management using planned sheep grazing. Herds of livestock reside part-time at the solar farms and graze beneath the solar panels. As sheep bite off the tops of plants, keeping vegetation from shading the solar panels, they fertilize the soil, causing more plants to grow. This agricultural practice is designed to improve soil health, sequester carbon, and boost water quality on land used for solar power generation. This approach also generates new long-term revenue opportunities for farmers and the local communities and supports important agricultural jobs. Additionally, these practices also promise to provide measurable sequestration of carbon in natural systems thereby providing additional mitigation of climate change challenges that face our planet.

Conclusion:

Green Power EMC and its member cooperatives are proud of Georgia's significant growth in renewable energy. We are committed to meeting the demands of a transitioning energy landscape in innovative ways that can support local economies while not sacrificing affordability or reliability. Thank you for conducting this hearing and for the opportunity to share how renewable energy is benefitting rural Georgia economies.