Testimony of the Honorable Jim Matheson
Chief Executive Officer
National Rural Electric Cooperative Association

to the United States Senate
Committee on Environment and Public Works

"Promoting American Energy Security by Facilitating Investments and Innovation in Climate Solutions."

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Introduction

Chairman Carper, Ranking Member Capito, and members of the Committee, thank you for inviting me to testify. As Chief Executive Officer of the National Rural Electric Cooperative Association (NRECA), I have the honor today of carrying the community-focused perspective of the nearly 900 electric cooperatives that NRECA represents into this important conversation.

The importance of domestic energy security is high on the minds of the American public. As our nation works to strengthen energy security and reliability while also protecting the environment, we must realize that it is not an all or nothing choice. We can address these priorities – but it requires technology and time beyond what is currently available and what many have called for.

This Committee and other policymakers should recognize certain key points as we continue discussing the nation's energy future:

- A resilient and reliable electric grid that affordably keeps the lights on is the cornerstone of American energy security and the national economy.
- The ongoing energy transition must recognize the need for time and technology and must also be inclusive of all energy sources to maintain reliability and affordability. Achieving 100% carbon-free electricity generation by 2035 is an overly ambitious goal.
- Several programs in the bipartisan infrastructure bill made important investments to support an energy transition, but additional actions on tax credits, permit streamlining, and coordination on electrification will be required to meet future energy needs.

Electric Co-Ops Are Powering Stronger Communities

From the suburbs of Austin and Atlanta to remote farming communities across the Midwest, ranches in the mountain states, and all areas in between, electric cooperatives deliver power to 1 in 8 Americans. Electric cooperatives operate in 48 states, and they serve 56% of the land in this country. They are owned by the people they serve and operate at cost and without a profit, returning $1.5 billion back to their consumer-members in 2020. In short: Electric co-ops are motivated by people, not profits.

All co-ops share an obligation to serve their members by providing reliable and affordable electric service. This obligation is not without challenges. Electric co-ops serve 92 percent of the nation's persistent poverty counties. And the sparsely populated and primarily residential communities powered by electric co-ops are often the most expensive, hardest to serve areas of our country. Electric co-ops proudly shoulder the responsibility of bringing electricity to these communities. And they do so as industry leaders in customer

satisfaction, as evidenced by electric co-ops dominating the top electric utility customer service ratings by J.D. Power.

Resilient and Reliable Generation is Critical for American Energy Security

A resilient and reliable electric grid that affordably keeps the lights on is the cornerstone of American energy security and the national economy. Diversity of electric generation is essential to this commitment. Fuel diversity mitigates the regional impacts of differing energy resources and short-term supply disruptions. Diversity of electric generation also helps electric co-ops maintain high reliability and affordable rates expected by their consumers. Consistent with that approach, electric co-ops thoughtfully explore all options, technologies, and ideas as they work to meet the evolving energy needs of their local communities.

Natural gas has emerged as the leading source of electric co-op power, accounting for 32% of the co-op energy mix in 2020 and surpassing coal for the first time. This growing use of natural gas has contributed to a significant reduction of co-op carbon dioxide (CO_2) emissions. Natural gas has increasingly displaced coal generation, with the share of coal in the co-op energy mix falling below 29% in 2020. Even as the share of coal capacity is expected to decline, it remains a critical source of reliable, affordable power, particularly in regions of the country where deployment of renewable sources is neither affordable nor reliable. Several Generation and Transmission co-ops also have part ownership in nuclear power plants, including the new reactors under construction at Plant Vogtle in Georgia, and more are exploring other advanced reactor technologies.

Hydropower remains the largest source of co-op zero-emission, renewable electricity. More than 600 electric co-ops in 34 states purchase electricity at-cost from the Power Marketing Administration's federal hydropower facilities, as well as other hydro resources owned or under contract by co-ops. Electric co-ops are leaders in community solar, with one-quarter of co-ops offering community solar options to their members. NRECA is partnering with the Department of Energy to research small-scale, community-based wind energy solutions that can be deployed by electric co-ops. By the end of 2021, co-ops had more than 12.5 gigawatts of renewables in their resource portfolios, in addition to purchasing 10 gigawatts of federal hydropower. All of this has happened despite the fact that electric co-ops don't have access to the federal tax incentives that are available to for-profit utilities.

However, intermittent resources such as wind and solar must continue to be complemented and supported by always available baseload energy resources such as natural gas, coal, and nuclear energy. A recent long-term reliability assessment by the North American Electric Reliability Corporation (NERC) highlights the critical need to maintain baseload generation, particularly given increasing levels of intermittent renewable generation. Among the major risks to reliability of the electric grid, NERC

identified intermittent and inverter-based resources such as wind, solar, and battery storage displacing capacity provided by firm, baseload generation. Near-term capacity shortfalls during extreme weather events may occur if too much baseload generation is retired prematurely without ready replacement. "Capacity-based estimates, however, can give a false indication of resource adequacy. Energy risks emerge when variable energy resources (VER) like wind and solar are not supported by flexible resources that include sufficient dispatchable, fuel-assured, and weatherized generation."[1] Risks associated with extreme weather events identified by NERC also underscore the need to improve grid resilience, weatherization, and additional options for reliable low-emission generation.

Robust development and deployment of carbon capture, utilization, and storage (CCUS) technologies will be one of many actions necessary to meet any significant CO_2 emission reduction objectives while supporting critical baseload power generation. Electric co-ops are involved in numerous CCUS projects for both natural gas and coal power plant applications. I appreciate the leadership of many senators on this Committee in supporting CCUS deployment, permitting, and infrastructure, recognizing its importance in decarbonization efforts while ensuring continued access to reliable, affordable, and low-carbon electricity.

As electric co-ops continue to reduce CO_2 and other emissions, it is critical that policymakers work with industry in a constructive manner that achieves these objectives while maintaining the exceptional reliability and affordability that American families and businesses expect and deserve. Congress should oppose any regulatory or legislative efforts that would mandate energy sector transformations over unreasonable or unrealistic timelines and that fail to account for regional differences in energy resource availability or the potential for stranded assets. Such policies would have significant impacts on the reliability and security of the electric grid and could have an undue economic impact on co-op consumer-members, particularly as additional costs must be incurred for replacement generation.

Investments and Innovation Are Driving New Possibilities

American ingenuity and industry can address the challenge of maintaining resilient and reliable domestic energy supplies while continuing to lead the world in environmental stewardship. Electric cooperatives are leading by example by accelerating energy innovation and powering a brighter future. Electric co-ops substantially lowered their carbon emissions by 23% between 2005 and 2020, the equivalent of taking nearly 9 million cars off the road.

[1] North American Electric Reliability Corporation. 2021. *2021 Long-Term Reliability Assessment.* Atlanta, GA. https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2021.pdf

Electric co-ops have invested in a variety of measures to reduce emissions, such as rapidly expanding renewable sources, energy efficiency and storage options, and research on carbon capture technologies. From establishing the first rural microgrids to pioneering the first electric school bus program, electric co-ops are using advanced technologies to power their communities. They have invested billions to modernize their systems and create a more resilient grid and are exploring additional zero-carbon opportunities with small modular reactors and partnerships for hydrogen deployment.

As I hear from electric co-ops across the country, however, the lack of commercially viable electric generating technologies that are affordable, always available, and carbon-free remains a significant barrier to even greater emission reductions while meeting consumer-member expectations for reliability and affordability. The ongoing energy transition must recognize the need for time and technology and be inclusive of all energy sources to meet these expectations.

Several programs in the bipartisan infrastructure bill are making important investments that could help overcome some of those barriers. This legislation included significant opportunities for electric co-ops and the communities they serve through programs supporting clean energy deployment, grid resiliency and modernization, physical and cybersecurity, electric vehicles, and rural broadband.

On electric vehicles (EVs) in particular, we thank this Committee for including funding for EV charging infrastructure. Many electric co-ops across the country have established or are planning programs to support EV adoption in their communities. This targeted support will help ensure that rural America is not left behind and will assist co-ops in overcoming unique challenges for rural areas related to charging predictability and demand spikes. Substantial distribution infrastructure investment over time will also be needed, however, to meet increased electric demand and changes in demand distribution.

NRECA looks forward to working with this Committee and the Administration to ensure these programs reach the communities served by electric co-ops. But additional actions on tax credits, permit streamlining, and coordination on electrification will be required to achieve significant emission reductions while maintaining energy reliability and affordability.

As not-for-profit businesses, electric co-ops cannot access certain energy innovation tax incentives available to other businesses. The potential for co-op investments in emerging energy sources could be enhanced if they were able to receive the full value for these tax credits through a direct payment option. I would like to thank Chairman Carper for his support for direct payment options for energy tax credit legislation and understanding the importance of making these tax credits available to electric co-ops. Also, thank you Ranking Member Capito for your work on direct pay specifically for the 45Q carbon capture tax credit. We look forward to these direct pay options being enacted.

To maximize the potential of clean energy and grid resilience initiatives and the pace at which they are deployed, Congress must also improve federal permitting and regulatory processes. As this committee knows, the National Environmental Policy Act (NEPA) is the underpinning for all federal agency permitting processes. Electric co-ops fully support the fundamental goals of NEPA to appropriately consider the potential environmental impacts of federal actions. However, the NEPA process has continually expanded – requiring more time and expense than originally intended to complete needed infrastructure projects. This process is often exacerbated as projects, especially linear infrastructure, must navigate environmental reviews and permitting with multiple federal agencies with separate decision-making authorities and often counter viewpoints. NRECA encourages policymakers to support solutions that modernize NEPA and facilitate coordinated, consistent, and timely agency decision-making in a way that strengthens our economy and enhances environmental stewardship.

The electric sector is poised to play a major role in transforming and reducing emissions in the transportation, industrial, agricultural, and other sectors through increased electrification. Electrifying other sectors of the economy, however, will require a three-fold expansion of the transmission grid and up to 170% more electricity supply by 2050, according to the National Academies of Sciences.[2] The increasing role of electrification will place more demands on the electric grid and generation portfolio and measures to enhance grid reliability are essential to maximize emission reductions and keep costs affordable. This shift toward additional electrification could significantly increase the "emissions efficiency" of the entire economy (i.e., everything powered by the grid plus the amount of the other sectors electrified), with the collective impact of lowering overall U.S. CO_2 emissions even if the electric sector doesn't approach zero emissions. In order to make that a reality, this transition will require tremendous planning, investment, and collaboration among all stakeholders.

Conclusion

Providing reliable, affordable, and responsible electricity remains the shared commitment of all NRECA's members. For over 80 years, electric cooperatives have responded to the needs of their communities and adapted to changes in federal policy in meeting that commitment. Policymakers must continue to balance realism with aspiration while recognizing that any energy transition will require additional time and technology and must be inclusive of all energy sources to maintain the reliability and affordability that is the cornerstone of American energy security. NRECA and the nation's electric cooperatives look forward to working with this Committee and others in Congress on this mission.

[2] National Academies of Sciences, Engineering, and Medicine. 2021. *Accelerating Decarbonization of the U.S. Energy System.* Washington, DC: The National Academies Press. https://doi.org/10.17226/25932.