

Written Testimony of Timothy R. Johnson

Chief Executive Officer

OEConnect, LLC and Otsego Electric Cooperative, Inc.

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Rural Broadband - Examining Internet Connectivity Needs and Opportunities in Rural America

Chairman Scott, Ranking Member Thompson, and members of the Committee. Thank you for this opportunity to testify about rural broadband and its importance in our nation's rural areas. I am Tim Johnson, Chief Executive Officer of OEConnect, LLC and Otsego Electric Cooperative, Inc. (collectively "OEC"), headquartered in Hartwick, New York. OEConnect is a wholly-owned subsidiary of Otsego Electric Cooperative, Inc. which is a member-owned and democratically controlled tax exempt non-profit organization under IRC Section 501(c)(12).

Otsego Electric Cooperative provides electric service to 4900 rural locations that investor-owned utilities initially ignored or bypassed many years ago. We serve some of the poorest, most rural parts of our state in what was formerly a thriving dairy farming area with an average of only about 6 meters per mile. History repeated itself in a sense when it became apparent over the past decade or so that adequate broadband service was not being made available to our members so, in early 2017, OEC announced plans to begin offering high-speed, affordable broadband service. This project now allows our members to fully participate in the 21st century economy and to continue to work and go to school during the worst pandemic in 100 years. OEC now has service available for 100% of our members with state-of-the-art fiber to the home service at speeds up to 1 Gigabit per second download and upload with no data caps at a very fair price. OEC has fiber passing more than 5,000 locations over a 700-mile fiber network. Every one of these locations is being offered the same superior level of service. To date we have activated almost 3,000 broadband and voice services and our subscribers have been ecstatic that we took the initiative to build this project when we did. It has provided blessings in many ways during the COVID-19 crisis. We immediately prioritized new service connections to doctors, nurses, other health care

professionals and support personnel, teleworkers, and students when our state was shut down. While we are off to a great start, we have also faced many challenges and we believe you can provide critically needed funding and policies to support broadband in our area and in rural areas across the nation.

OEC is part of a broader electric cooperative industry, represented by the National Rural Electric Cooperative Association (NRECA) that serves one in eight Americans and covers 56% of the U.S. landmass. Electric cooperatives are owned by the members whom we serve and we are uniquely suited to best understand and serve our members' and our neighboring rural residents' needs. Most electric cooperatives are small businesses; they don't have investors or access to significant capital to help defray the costs of building and maintaining their infrastructure. These costs are borne directly by the farmers, ranchers, small businesses and other residents of the nation's rural communities – including those in 93 percent of the nation's persistent poverty counties.

Electric cooperatives play a vital role in transforming communities

While our priority at OEC has historically been to provide reliable, clean, and affordable electricity to our members, our commitment to our communities extends well beyond that service. We also provide services that empower local communities to improve their quality of life. As mentioned, that includes participating in efforts to make sure they have access to a robust communications infrastructure including access to quality and affordable broadband that enables rural communities to thrive and compete in an increasingly connected, global marketplace. Economic development, the education of our students to compete with children from urban areas, agriculture, and healthcare all require robust broadband access in the 21st Century.

Many comparisons are drawn between the lack of access to robust broadband service today and the need for electrification in rural America 80 years ago - with the urban areas of the country well-served, and rural areas being left behind. In part because cooperatives are led by, and belong to, the communities they serve, there is an increasing number of electric cooperatives studying whether they should be part of the solution to close the digital divide. More than 200 electric co-ops in 37 states, including Otsego, are currently deploying diverse broadband solutions and as many as 100 more are exploring feasibility of broadband either on their own or through partnerships to bridge the digital divide and jump-start local economies. This

cooperative commitment is vital for the one-quarter of all rural Americans who still lack access to broadband, compared to less than 2 percent in urban areas.

Keys to Rural Broadband Expansion

We need continued public funding immediately to help broadband expansion. OEC would not have entered the broadband business without grant funding and this is true for most electric cooperatives. The costs of construction, due to the lack of customers per mile, would not be recoverable within commercial lending requirements. The costs of operations are also much more difficult to cover due to the lack of density and therefore lower revenues. However, it is very important to point out that OEC and rural electric cooperatives in general have great advantages in expanding broadband. We are located in these areas so we are familiar with the terrain and existing infrastructure, and we are stable organizations that have served these communities for over 75 years. Cooperatives have skilled manpower, equipment, and vehicles and we own the poles and rights of way so we can control some of our make ready costs – the process of ensuring poles are ready and in proper condition to have fiber hung on them – through planning and proactive maintenance schedules. Cooperatives have generally done a very good job of maintaining their poles, right of ways, and infrastructure so make ready costs – which can be 50% of the cost of building networks – can be greatly reduced. OEC treats all attachers equally for make ready purposes and pole attachment rates. In OEC's experience, total construction costs within our system were over 50% lower than the costs of building outside of our electric footprint on investor-owned electric utility systems. Further, there is no cross subsidization between OEC and our subsidiary, OEConnect, because that could create problems for our tax-exempt status. OEConnect leases fiber from OEC on commercially reasonable terms. While there is no one-size-fits- all business model for providing broadband, it is an area that has required a lot of time, resources and outside counsel to ensure we are doing it all correctly. Making funding available to cooperatives will help ensure that public funds will be used more efficiently. OEC has built over 100 miles of fiber beyond our electric system and make ready in those areas is double the cost of building inside the cooperative's electric service area. Cooperatives are member owned systems with elected directors so we are able to democratically decide where and how to build a broadband system that will best serve our members over the long term.

OEC was just awarded \$7.18 million under the Federal Communications Commission (FCC) Rural Development Opportunity Fund (RDOF) to extend service into more areas. This funding will accelerate our ability to provide fiber to the home service to more unserved locations that currently lack 25/3 Mbps fixed, terrestrial service. We have been inundated with requests for service beyond our territory since the start of the pandemic so we know there is huge unmet demand and now we will be able to provide it to some of these folks. We need more flexible funding as the job is not done in our area and is desperately needed right now. We have had school kids sitting in neighbors' unheated garages and medical doctors who cannot access the internet with anything better than data-capped, high latency-prone satellite service. We have lists for many of these unserved and underserved homes and businesses and there are many more to get to. Without grant funding, however, we would not have extended service to our members or to most of these nonmember locations, if at all. Being a cooperative restricts our options to raise money and we are required to operate as an independent entity governed solely by our members. Cooperatives cannot issue equity or accept equity contributions from other partners and still maintain control over our projects.

One of the major reasons that OEC entered the broadband business was for rural development to stem population loss from rural areas. If we did not address the problem, nobody else was going to do it and we would continue to experience decline. We believed that if we built fiber to these homes, people would decide to move here; or, if they had a second home already, they would stay longer; or, they would be able to engage in e-commerce and education while still living in our rural areas. This proved to be prescient. Our cooperative members and a good number of their neighbors - though hard hit by the pandemic just like everyone - have been able to continue to go to school, work, engage in e-commerce, and obtain healthcare when they would not have been able to otherwise.

Existing Programs

OEC would like to see that the FCC is held accountable for valuable broadband funding by ensuring that the winners of all RDOF funds (including RDOF Phase I) are responsible bidders and capable of actually deploying a network at the speed and latency they promised to their awarded areas on time. Bidders should be vetted before the auctions are held and funds are awarded, not after. In addition, it is a mistake to group all technologies that can reach a certain

speed threshold as equal. Certain technologies like fiber to the home systems are more robust, time-tested, and future proof than others and public funds should be allocated accordingly. Otsego would also like to see the RDOF Phase II auction (“RDOF II”) accelerated and put into motion as soon as possible or, if other programs can be made available sooner, then use the RDOF II funds to supplement the funding. A reverse auction format should ideally be used for awarding funds but it is difficult to put auctions of this nature together fast enough with proper rules and controls. We need to incentivize and give greater weight to technologies that are expandable and proven to be capable of reliably providing at least 100/100 Mbps and the technology needs to be based on resilient assets that will last for the long term to future-proof service. Additionally, thought should be given to prioritizing community-based providers with existing presence and ties to and near the communities they’re seeking to serve. Unfortunately, this was not the case in the recent RDOF I reverse auction. Our national association, NRECA, has expressed concern with specific subsets of initial winning bidders in the RDOF I Auction. Specifically, NRECA issued a white paper expressing concerns regarding the substantial subset of bids in the RDOF Phase I auction awarded to fixed wireless Gigabit tier bidders and low-earth-orbit (LEO) satellite providers bidding at the 100/20 Mbps tier.¹ These technologies are not proven to deliver reliable service at these speed tiers, especially in rural areas. There is a high likelihood that some of these questionable bids will be deemed unqualified by the FCC. More thorough upfront vetting should be required in future auctions.

Programs to address rural broadband deployment also exist at the United States Department of Agriculture’s (USDA) Rural Utilities Service (RUS), including the ReConnect (grants/loans & loan/grant combos) program, Community Connect and others. These programs have some very positive attributes, such as the ability for an applicant to establish boundaries for its proposed funding area. However, the programs have limited funding compared to the FCC and they can be administratively onerous and burdensome which is why some, including my cooperative, have not participated in them. The onerous nature of the programs stem both at the agency and statutory level. Recently, our national association, NRECA, submitted comments to RUS laying out concerns with the ReConnect program and recommending changes before the funding

¹ NRTC & NRECA, *The Rural Digital Opportunity Fund: Rural America’s Broadband Hopes at Risk*, filed February 2, 2021, available at: <https://www.fcc.gov/ecfs/filing/10202734510982>.

window opens for Round Three of the ReConnect program.² NRECA has also submitted comments³ to USDA for the rulemaking process to implement the USDA RUS Farm Bill Broadband Loan and Grant program, which was retooled when Congress reauthorized the Farm Bill in 2018 but has not been funded. Electric cooperatives participated in and appreciated the efforts taken to learn from some previous challenges by reshaping this program. In addition to representing a bi-partisan, bi-cameral compromise, there are components of the Farm Bill broadband program that are more appealing including increased speeds (from 10/1 Mbps to 25/3 Mbps) for areas to be eligible and prioritizing lowest density areas for grant funding. We support a plan to transition from ReConnect to the Farm Bill program, or otherwise exploring how to combine the two to ensure that USDA broadband programs are accessible to providers and meeting the goals of reaching rural Americans with broadband.

Another recent change within USDA programs was enacted as part of the 2018 Farm Bill. Section 6210 of the Agriculture Improvement Act of 2018 (Farm Bill) allows recipients of any loan, grant, or loan guarantee from Rural Development (RD) to use up to 10 percent of the amount provided to construct broadband infrastructure in areas not fully served by a minimum acceptable level of broadband service. This provision will not only speed deployment of smart grid but will also help bring desperately needed vital broadband to unserved rural communities. It correctly recognizes the vital role of communications in managing the electric grid and the ongoing technology convergence between the utility and telecommunications industry.

Affordability

The new Emergency Broadband Benefit Program at the FCC is a very positive approach to the high-cost low-income services across the Nation but it will need to be made permanent. Once a network is constructed and broadband is available, there is also the issue of affordability for

² NRECA Comments on *The Rural Utilities Service (RUS) Final Rule and request for comment on the Rural eConnectivity (ReConnect) Program. The Rural eConnectivity Program provides loans, grants, and loan/grant combinations to facilitate broadband deployment in rural areas* (RUS-20-Telecom-0023) (RIN: 0572-AC51), filed March 23, 2021, available at:

<https://www.cooperative.com/programs-services/government-relations/regulatory-issues/pages/nreca-files-comments-with-rus-on-rural-econnectivity-boadband-program.aspx>

³ NRECA Comments on *The Rural Utilities Service (RUS) Interim Rules for the Farm Bill Broadband Loan and Grant Program* (RUS-19-Telecom-0003) (RIN number 0572-AC46), filed May 11, 2020, available at:

<https://www.cooperative.com/programs-services/government-relations/regulatory-issues/Documents/NRECA%20Comments%20RUS%20Broadband%20IFR%205-11-20%20FINAL.pdf>

many who have had their employment income disrupted, or even worse, eliminated during the pandemic and otherwise. There are many who simply cannot afford to pay for service due to unemployment, underemployment, illness, disability or other conditions and we need to provide ongoing sustainable help for them. Students – especially minors who are too young to work – who live in these households cannot access equal educational opportunities and adults cannot work remotely at certain jobs without assistance that is more than the current monthly Lifeline Benefit of \$9.25 through one of the FCC Universal Service Fund programs. The Lifeline program needs to be increased permanently and the funding for it needs to be revised to a level that moves the needle on affordability. The low-income, high-cost households are also being deprived of telemedicine and valuable consumer research opportunities when buying or selling goods and services. The marketplace is on the internet more than ever these days. From the consumer perspective, there is no difference between having no access to broadband service and having access but not being able to afford it. The result is the same and therefore affordability is a key component.

Data and Mapping

The FCC has launched the Digital Opportunity Data Collection process to improve mapping and identify gaps in coverage as required by the Broadband Deployment Accuracy and Technological Availability (DATA) Act, signed into law in March 2020. Congress needs to monitor these efforts closely to ensure that improvements to the broadband data collection and mapping are granular enough to get an accurate picture of where service is available and where it is not. Congress must also insist that this data be made available as soon as possible.

Building Broadband Networks for the Future

Broadband is as needed in rural America as other infrastructure systems to support a healthy economy and community. Policymakers in Washington, D.C., have recognized the importance of rural broadband networks by including increased funding and new programs to promote rural broadband infrastructure.

It is our strong belief that fiber service is the best and longest-term technological solution for these households and businesses. Satellite, cellular, and fixed wireless, and other unproven

solutions are inferior to fiber for various reasons and our rural residents deserve the same level of service that others in more urban and suburban areas have available.

One of the key objectives for consideration with respect to using the limited resources made available is that any broadband funding plans should include clear expectations for whomever receives federal or state support. Recipients should be required to construct networks capable of meeting consumer demand over the long-term and not just today's minimum speed. In other words, resources should be used to build networks which will be useful for decades. Spending federal or state dollars on broadband networks that are still in experimental phases or will be obsolete in a few years doesn't make financial sense and will leave rural areas behind again. The highest speed and capacity solutions such as Fiber to the Home projects should be given preference over other less robust technologies. Other considerations affecting the end-user experience, such as latency and data cap limits which lead to a higher cost and diminished ability to utilize the service, should also be considered in all broadband funding programs.

The Role of Public Investment in Reliable Rural Broadband Service

As a non-profit cooperative, we operate at cost and our access to capital is limited by what we ask our consumer member-owners to contribute through the rates they pay. Additionally, our rural nature lends itself to sparse population densities which means we have smaller groups of consumers to spread the costs of deploying service. Because OEC, similar to other electric cooperatives across the country, is a small non-profit that operates at cost, we entered this business with no extra cash to spend on the project. This means we financed our portion of the broadband infrastructure investment with borrowed funds. We had resources to invest - mostly labor, infrastructure, and equipment - but we would not have been able to proceed with the project without public funds. We also will not be able to extend our service area to reach additional rural Americans who don't yet have robust service without additional public funds. Therefore, continued government funding to reduce the upfront capital investment and help make the business case to deploy robust broadband is necessary to achieve wide-spread expansion of high-speed access throughout rural America.

As previously mentioned, there are currently federal funding programs operating and geared toward this purpose at the USDA's Rural Utilities Service (RUS) and at the FCC. Programs at these agencies are complementary and equally important. Electric cooperatives have witnessed

both success stories and challenges within these programs in pursuit of bridging the digital divide throughout rural America. Additionally, a few new targeted programs are to come online soon at the National Telecommunications Information Administration (NTIA) at the Department of Commerce, and we may see states and localities direct a portion of their Coronavirus Flexible Recovery Funds or the Coronavirus Capital Infrastructure Funds toward broadband.

While there has been a lot of investment and activity, it is important to remember that the FCC estimated in 2017⁴ that it would cost \$80 billion to bring high-speed internet to remaining parts of the country that do not have access, and a 2019 U.S. Department of Agriculture report⁵ estimated it would require “between \$130 and \$150 billion over the next five to seven years, to adequately support rural coverage and 5G wireless densification.” Sustained investment is required to truly close the digital divide. It is also very likely that new more granular broadband data and maps will find the broadband gap to be wider than currently estimated, requiring additional funding.

Rural electric cooperatives are uniquely suited to partner with the government for these projects because of the existing infrastructure we have in place throughout our service areas and unique local control. As member-owned, locally operated, and democratically controlled entities we feel we can best determine the needs of our local service areas because our consumer-members have a direct say in the services we provide, and we will continue serving these areas we call home long after other companies have reduced the quality of their service or ceased investment altogether.

Conclusion

As I have described, broadband is vital to the survival and growth of both the communities OEC serves and all of rural America. Much progress on broadband deployment has been made over the last few years and it’s important that we address the public policy challenges I’ve shared to ensure that progress may continue. Electric cooperatives are well suited for this task and we are

⁴ Federal Communications Commission Study: Improving the Nations Digital infrastructure:
https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0119/DOC-343135A1.pdf

⁵ United States Department of Agriculture: A Case for Rural Broadband:
<https://www.usda.gov/sites/default/files/documents/case-for-rural-broadband.pdf>

committed to deploying broadband in rural America and investing in these difficult to serve areas where other providers are not willing to deploy robust broadband networks.

National and state broadband programs offer an opportunity to promote broadband development. As part of this effort, our cooperative is ready and willing to continue the conversation about broadband programs and we look forward to working with you to expand all the benefits broadband has to offer so rural New Yorkers will not be left behind.

Thank you for the opportunity to testify, and for your commitment to rural broadband. I look forward to working with you and answering any questions you may have.

Timothy R. Johnson, CEO

Otsego Electric Cooperative and OEConnect

PO Box 128

Hartwick, NY 13348

607.293.6622

tim.johnson@otsegoec.coop