



CORNING

Beyond Building the Network Once and For All

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The Role of Rural Electric Cooperatives in America's Broadband Future

The rural broadband landscape has seen notable progress in recent years. Federal, state, and local policymakers have put more emphasis on closing the digital divide in the U.S., with the goal of bringing comparable broadband service enjoyed in most urban markets to rural markets all across the country. For example, in 2018 according to Pew research, 19 states so far have enacted 26 legislative actions related to increasing broadband availability¹.

While this attention is encouraging, the progress remains slow, with thousands of rural communities still lacking even basic broadband service, much less emerging ultra-broadband services that are now becoming commonplace in urban America. According to the Federal Communications Commission's (FCC) 2018 Broadband Deployment Report,

68.6 percent of rural Americans have adequate access to both fixed and mobile broadband services, as opposed to 97.9 percent of Americans in urban areas².

Much of the digital divide discussion focuses on comparing urban and rural markets. This is important, but an even deeper dive into the digital divide challenge reveals more granular disparities. Indeed, a rural-rural digital divide also exists, where many rural communities do have access to excellent broadband services delivered by community-focused providers and cooperatives, while neighboring rural communities in close proximity are unserved, or at best underserved. This divide creates wide swaths of rural territory with inadequate broadband, preventing these communities from participating in the competitive global economy.



There is hope, and increasingly that hope is being delivered by rural electric cooperatives (RECs). These RECs are now joining the important work being done by traditional telephone cooperatives in bringing broadband service to rural territories. It's a welcome solution and in line with the history of the cooperative utility movement, which brought both electricity and telephone service to these same territories many decades ago. Why should broadband be any different?

Uniquely Up to the Challenge

Rural electric cooperatives have some specific characteristics that make them uniquely qualified to make significant and meaningful strides in conquering the digital divide. Cooperative values and tradition are chief among them, as many RECs see bringing broadband to their territory as a natural extension of their duty to serve the community.

But beyond their community focus, RECs also possess important skills and assets that make expansion into broadband very favorable. Those skills and assets include:

- **Network Assets** – a utility network possesses many network assets important to the operation of a broadband network including fiber backbone, poles, rights-of-way, substations, pedestals, buildings, and trucks/vehicles.
- **Skills and Know-How** – operating an electric network enables skills and know-how that translate well into building and operating a broadband network.
- **Customer Relationships** – established billing relationships with customers provide a captive and engaged audience for broadband services.

- **Government and Community Relationships** – building broadband networks often involves partnering with local governments, and RECs can leverage long-standing government and community relationships for that purpose.
- **Location** – as RECs typically already serve these rural markets, proximity challenges are nonexistent.

The Advantages of a Long-Term View

Traditional broadband providers have a business model that requires a fast return on investment (ROI) to make large capital investments. With RECs anchored in their communities, they don't have short-term views or demands for short-term returns on investment, enabling them to take a long-term view that is particularly well-suited for significant broadband investments. The willingness of RECs to look at these investments as long-term and not short-term profit driven, puts them in a unique position to close the broadband gap where it's most needed.

That same willingness has an upside for the REC community. As consumers look to other sources of energy, including renewables, while also conserving power usage, traditional electric service revenues are beginning to face downward pressure. Like other utilities, including telephone companies and cable companies that have core services (telephone and TV) with declining revenue trends, RECs too can look to broadband as a revenue diversification strategy. Both TELCOs and cable utilities have made this transition. Electric utilities should consider doing the same. Deploying broadband in rural America is more than just a civic duty, it's also an attractive revenue diversification strategy.

Funding Opportunities

As mentioned, bringing broadband to rural markets can be an expensive proposition. Luckily, there are a range of government-sponsored funding programs and subsidies that can help support the business case. At the federal level, the USDA's Rural Utilities Service (RUS) provides both loan and grant programs through its Rural Development arm. Traditional loan programs provide billions of dollars in loans to rural infrastructure programs, including broadband and smart grid initiatives³. Recently, Congress expanded funding through RUS by adding the e-Connectivity Pilot Program, which allocated an additional \$600 million in 2018. Additional funding for this pilot program of between \$400 million and \$525 million is in pending legislation.

Another federal funding program is the FCC's Connect America Fund (CAF)⁴. This fund budgets billions of dollars per year to eligible telecommunications carriers for the support of broadband service in high-cost areas. The FCC just concluded an auction through this program, the CAF-II reverse auction, which awarded \$1.5 billion to help support the expansion of rural broadband. Over \$225 million from this auction will support 35 REC broadband projects⁵.

Several state programs also target the expansion of rural broadband. Examples include programs in Wyoming, New Mexico, Colorado, and Minnesota, among others. Minnesota's Border-to-Border Broadband Development Grant Program awarded \$20 million in 2017 to support rural broadband expansion across the state⁶.

Rising to the Digital Divide Challenge

Thousands of communities across the country need all of the benefits broadband can bring. The statistics that stem from the digital divide can be sobering. Between 2010 and 2016, rural America suffered its first population decline in history⁷. While rural-to-urban migration has always been a factor, for the first time in history natural population growth did not keep pace with this migration, meaning rural America's population is in decline. A key factor in this decline is residents leaving rural America for better economic opportunity elsewhere.

Lack of broadband acts as a drag on economic development. According to a Community and Regional Development Institute report, non-urban counties with low broadband penetration had lower growth in both the number of businesses and total employment⁸. Conversely, this study concluded that non-urban counties that had high broadband penetration had significantly higher growth in median household income. Recent data from an International Telecommunications Union (ITU) study suggests that in developed economies, for every 1 percent increase in fixed broadband penetration, a corresponding increase of 0.08 percent in GDP occurs⁹.

Broadband can make a difference and is a cornerstone for a healthy and vibrant local economy. To be blunt, rural communities need broadband to survive. Without it, they face an uncertain future.



RECs can help end the Digital Divide

RECs are in a unique position to address this sobering reality. Indeed, no other group of providers is better situated or more committed to solving this problem. According to the National Rural Electric Cooperative Association, RECs serve over 42 million Americans across 56 percent of the nation's landmass, some of which fit the undesirable category of underserved or unserved with broadband. It's ground zero for the digital divide.

Rural electric cooperatives are uniquely positioned to significantly contribute to ending the digital divide, perhaps eliminating it once and for all.

¹ Congress, More Than a Dozen States Consider Legislation to Expand Broadband Access, <https://www.pewtrusts.org/en/research-and-analysis/articles/2018/10/17/congress-more-than-a-dozen-states-consider-legislation-to-expand-broadband-access>

² 2018 FCC Broadband Deployment Report, <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>

³ USDA Loan & Grant Programs for Rural Broadband, <https://www.usda.gov/broadband>

⁴ Connect America Fund, <https://www.fcc.gov/general/connect-america-fund-caf>

⁵ FCC Approves \$225 million for 35 Electric Cooperatives to Provide Rural Broadband, <https://www.electric.coop/fcc-approves-220-million-33-electric-cooperatives-provide-rural-broadband>

⁶ Minnesota Border-to-Border Broadband Development Grant Program, <https://mn.gov/deed/programs-services/broadband/grant-program/>

⁷ Cooperatives Fiberize Rural America: A Trusted Model For The Internet Era, <https://muninetworks.org/sites/www.muninetworks.org/files/Cooperatives-Fiberize-Rural-America.pdf>

⁸ Broadband's Contribution to Economic Health in Rural Areas, <https://cardi.cals.cornell.edu/sites/cardiacals.cornell.edu/files/shared/documents/ResearchPolicyBriefs/Policy-Brief-Feb15-draft03.pdf>

⁹ The economic contribution of broadband, digitization and ICT regulation, https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/FINAL_1d_18-00513_Broadband-and-Digital-Transformation-E.pdf

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