

Appendix 8
Public Private Partnership Resources

Public Private Partnership Models

The following descriptions of public-private partnerships are meant to show partnership models which may work for rural Nebraska communities and regions. Every community and region is different. What works for one community or region may not work for another.

Community-Telecommunications Provider Partnerships

Communities Facilitate Broadband Deployment

Gothenburg, Nebraska. Community leaders in Gothenburg worked together to educate community members about the importance of broadband and to attract a competitive provider. The community built a business case for providing broadband by surveying residents, compiling lists of interested customers, and collecting deposits.

Source: *Broadband 102 Nebraska Broadband Today Conference Oct. 2017 Video*
<https://www.youtube.com/watch?v=dw0YawhSBry&list=PLXAZ85-Ay7HrsE6-16tqzD4Giezd9vc&index=11&t=0s>

Funding: The Gothenburg Improvement Company provided assistance.

Ravenna, Nebraska. Prairie Hills Wireless is providing high-speed wireless internet access of up to 150 Mbps in central Nebraska with a service area including Amherst, Boelus, Cairo, Hazard, Kearney, Litchfield, Loup City, Miller, Pleasanton, Ravenna, Rockville, and Riverdale. The City of Ravenna worked with Prairie Hills Wireless on special use permits and allowed Prairie Hills Wireless to use the municipal water tower.

Source: *Ravenna Leverages Social Media, Wireless Broadband*
<http://www.nitc.nebraska.gov/news/community/2018MarRavenna.html>

Funding: No public funding was provided.

Seward County, Nebraska. Seward incentivized a fiber optic service provider, Great Plains Communications, to build in its historic downtown business district by utilizing LB 840 funds.

The Local Option Municipal Economic Development Act established by LB 840 in 1991 authorizes incorporated cities and villages to collect and appropriate local tax dollars—including sales and/or property tax for economic development purposes. In order to utilize LB 840 funds, a community must develop a local economic development plan and have it approved by voters. The approved plan becomes the basis for the collection and expenditures of LB 840 funds for economic development. Over 60 Nebraska communities are currently eligible to offer loans, grants, and other activities through LB 840.

Seeing the success in Seward, the county expanded its efforts to improve broadband infrastructure to Milford, Seward County's second largest community. The county ran a similar game plan in Milford, utilizing LB 840 funds to incentivize fiber to the business district. The county also used some philanthropy funds to build fiber to the home in Milford as well.

"What is exciting about the investment that was made through LB 840 in Seward, in particular, is that investment tends to attract more investment. And investments along with fiber to the business district

actually led to fiber to the home. We had Bluestem Fiber choose to come into Seward as one of their pilot communities to build fiber to the home. And really the only complaint we've heard is when are you going to get to my home. They can't build fast enough. We are fortunate to have that level of investment in both Seward and Milford. And really our long-term goal is to be potentially the first fiber to the home county in the state."

Building community support was also important to Seward County's success. Through talking to business owners during business retention and expansion visits, internet connectivity was identified as an issue—especially in downtown Milford. Members of the LB 840 committee, which included the superintendent of the schools in Milford, also identified the need for better internet access for telecommuters and for students needing internet access to complete homework.

Source: *Seward County Attracts Investments in Broadband Infrastructure*
<http://www.nitc.nebraska.gov/news/community/2018MarSewardCo.html>

Funding: LB 840 funding, philanthropic funds

Jackson County, Colorado has a population of 1,000 and an area of 1,600 square miles. The incumbent provider had no more bandwidth to supply an additional customer and provided no broadband service outside of Walden. Efforts to attract a competitive provider were complicated by a lack of affordable middle mile access. With \$260,313 in grant funding from the Colorado Broadband Deployment Board and a local match of 25%, Jackson County contracted with VistaBeam to bring broadband in via microwave from Wyoming.

Funding: Grant funding and local match of 25%

Source: *Northwest Colorado Council of Governments Regional Broadband Program Five Year Report (March 2018)*
http://nwccog.org/wp-content/uploads/2018/11/Broadband_5YrReport_2018_MASTER.pdf

How Could This Model Be Incentivized

- Building community capacity/leadership can help communities and regions work together to address broadband development.
- Facilitating permitting and right of way can also reduce costs and save time for providers.
- Funding from grants, community groups, philanthropic funds or LB 840 funds can help make a business case.

Legal/Regulatory Barriers

- Local right of way, pole attachment, and permitting processes and fees may be a barrier

Communities Build and Lease Infrastructure

Northwest Colorado Broadband Project, Steamboat Springs, CO. The City of Steamboat Springs, RE-2 School District, Yampa Valley Electric Association, and Yampa Valley Medical Center worked together to reduce their transport and bandwidth by building a 7.5 mile fiber network connecting anchor institutions, creating a Carrier Neutral Location (CNL), and aggregating their transport and bandwidth needs. Construction of the \$2.2 million fiber optic trunk line was aided by a \$748,195 state grant. The Northwest Colorado Broadband Project has also contracted with an ISP to utilize their fiber network to provide broadband services in the county.

Sources: Northwest Colorado Council of Governments Regional Broadband Program Five Year Report (March 2018)http://nwccog.org/wp-content/uploads/2018/11/Broadband_5YrReport_2018_MASTER.pdf

Tom Ross. Steamboat Pilot. (Oct. 26, 2017) \$2.2M project bringing more affordable broadband to Steamboat <https://www.steamboatpilot.com/news/2-2m-project-bringing-more-affordable-broadband-to-steamboat/>

Funding: State grant, partner contributions

Ammon, Idaho operates an open-access fiber network. Broadband improvement Districts for neighborhoods were created to fund last mile connections. Property owners can opt to pay for the cost of connecting their properties to the fiber backbone.

Source: Broadband Communities March/April 2017
<http://www.nitc.nebraska.gov/news/community/2018MarRavenna.html>

Funding: Special Improvement Districts

Legal/Regulatory Barriers

- Neb. Revised Statutes Section 86-577 places restrictions on leasing of dark fiber by public entities. Section 86-594 prohibits public entities which are not public power suppliers from providing retail or wholesale broadband or telecommunications services. Section 68-595 prohibits public power suppliers from providing retail telecommunications services.

How Could This Model Be Incentivized

- Building community capacity/leadership can help communities and regions work together to address broadband development.
- Facilitating permitting and right of way can also reduce costs and save time for providers.
- Funding from grants, community groups, philanthropic funds or LB 840 funds can help make a business case.

Telecommunications-Electric Partnerships

Public Power Acts as an Anchor Tenant and Leases Fiber/Co-Owns Towers

Custer Public Power District. Consolidated Telephone and Custer Public Power District have co-owned two towers for many years. Custer Public Power provides the power and Consolidated provides the bandwidth to entities leasing space on the towers.

Building on their history of working together, Consolidated and Custer Public Power had a series of conversations on the broadband and power needs of both organizations. They developed a concept to get fiber to Custer Public Power District's towers and substations. Custer Public Power will provide aid of construction to build out the fiber network. Consolidated is designing the network to connect additional customers. Custer Public Power District also has similar agreements in place with Nebraska Central Telephone and Great Plains.

*Source: Brian Thompson presentation to Rural Broadband Task Force, Dec. 10, 2018
<https://ruralbroadband.nebraska.gov/meetings/task-force/2018Dec10presentations.pdf> and Public Private Partnership Subcommittee meeting with Rick Nelson, Custer County Public Power on Feb. 20, 2019.*

Funding: Partners provide funding

Legal/Regulatory Barriers: None

Public Power Acts as an Anchor Tenant But Owns its Fiber

Polk County Rural Public Power District did a study to see what it would cost to build fiber to its substations. They asked telecommunications providers if they were interested in partnering. Three were interested. Originally, Polk County Rural Public Power District was interested in owning the fiber network and leasing it, but determined that there were tax issues with this model. They are now partnering with a telecommunications provider to put in the fiber. The telecommunications provider will sell some of the fiber to Polk County Rural Public Power District. Being able to split ownership gives Polk County Rural Public Power District flexibility and security. The ISP and Polk County Rural Public Power District are also working on an application for a USDA Rural Utilities Service Grant.

Source: Public Private Partnership Subcommittee meeting with Phil Burke & Barb Fowler, Polk County Public Power District on Feb. 20, 2019.

Funding: Partners provide funding. USDA grant may provide additional funding.

Legal/Regulatory Barriers: None

Public Power Entities Sign Interlocal Agreement to Aggregate Demand and Facilitate Agreements with Telecommunications Providers

NPPD and local public power districts are exploring entering into an interlocal agreement to facilitate agreements with telecommunications providers and to aggregate their demand for telecommunications services. The sourcing effort would begin by talking to providers and then going through an RFP process. Network Nebraska could possibly act as a contracting agent. The consortium could also facilitate agreements between public power and telecommunications providers.

Source: Public Private Partnership Subcommittee meeting with Dave Webb, NPPD & Kim Christiansen, Nebraska Rural Electric Association on Feb. 20, 2019.

Funding: No additional funding required.

Legal/Regulatory Barriers: None

How Could Partnerships between Public Power and Telecommunications Providers Be Encouraged:

- Facilitating discussions between public power and telecommunications;
- Facilitating regional planning efforts including public power, telecommunications providers, local governments, economic development, education, health care, businesses and agricultural producers.

Public Power and Telecommunications Company Form a Joint Entity

Arkansas Rural Internet Service (ARIS). Ouachita Electric and South Arkansas Telephone jointly formed Arkansas Rural Internet Service (ARIS) to bring gigabit service to all 9,500 homes in Ouachita's service territory.

Nine Star Connect. Central Indiana Power and Hancock Telecom merged to form NineStar in 2011. Indiana law had to be amended to allow electric and telephone cooperatives to merge.

Source: Kim Christiansen's presentation to Rural Broadband Task Force, Dec. 10, 2018
<https://ruralbroadband.nebraska.gov/meetings/task-force/2018Dec10presentations.pdf>

Funding: Partners provide funding.

Legal/Regulatory Barriers: Undetermined

How Could This Model Be Incentivized: Undetermined

Telecommunications Provider Provides Services over Electric Fiber Network

Hendricks Power and Endeavor Communications, Indiana. Endeavor Communications is providing Gigabit-speed internet and telephone services over Hendricks Power's fiber optic network.

North Georgia Network Cooperative. North Georgia Network Cooperative received a BTOP grant in 2009 to build a regional fiber optic system with over 1,600 miles of fiber optic infrastructure. They partnered with Ellijay Telephone Cooperative for hosted telephony.

North Alabama Electric and New Hope Telephone Cooperative. North Alabama Electric received a \$19,100,909 USDA Broadband Initiatives Program grant in 2011 to develop a fiber network. North Alabama Electric is partnering with New Hope Telephone to provide broadband to households, businesses, and anchor institutions in the area.

Lumbee River EMC, NC and Horry Telephone, SC. With \$20 million in funding from USDA to install fiber, Lumbee River EMC installed a fiber network. A North Carolina law imposes restrictions on electric cooperative and USDA funding. In order to comply with the state law, Lumbee River EMC is leasing the system to Horry Telephone.

Source: Kim Christiansen's presentation to Rural Broadband Task Force, Dec. 10, 2018
<https://ruralbroadband.nebraska.gov/meetings/task-force/2018Dec10presentations.pdf>

Funding: Partners provide funding. Some electric providers utilized grant funding to build infrastructure.

Legal/Regulatory Barriers:

- Neb. Revised Statutes Section 86-577 places restrictions on leasing of dark fiber by public entities. Section 86-594 prohibits public entities which are not public power suppliers from providing retail or wholesale broadband or telecommunications services. Section 68-595 prohibits public power suppliers from providing retail telecommunications services.

How Could This Model Be Incentivized: Undetermined

Recommendations

- **Encourage local and regional broadband planning.** Each community, county or region is different and will likely require a unique solution. Bringing stakeholders together to develop a local, county or regional plan can lay the groundwork for public-private partnerships. Having a local or regional broadband manager or hiring a consultant can help facilitate the broadband planning and implementation. There are a number of broadband planning resources, including:
 - [Becoming Broadband Ready Toolkit \(Next Century Cities, 2019\)*](#)
 - [Leveraging Broadband in Your Community: A Workbook to Help Communities Stimulate Broadband Development \(Nebraska Broadband Initiative, 2014\)](#)
 - [Intelligent Community Forum Self-Test](#) and other resources from the [Intelligent Community Forum*](#)
- **Explore the creation of a statewide broadband association.** The association could include telecommunications providers, public power districts, schools, hospitals, municipalities, counties, and other stakeholders interested in advancing broadband in Nebraska. The

association could convene regional and statewide discussions and develop and distribute resources such as model or sample agreements.

- **Remove barriers to public-private partnerships.** A couple of possible barriers have been identified by stakeholders. Neb. Revised Statutes Section 86-577 places restrictions on leasing of dark fiber by public entities. Public power providers have stated that this could be a barrier. Legislation clarifying communications as an approved use for private easements set up for telephone and electric use would also eliminate uncertainty and litigation over this issue.
- **Identify funding for public-private partnerships.** Possible funding sources for public-private partnerships include LB 840 funds, USDA broadband grants and loans, Community Reinvestment Act, and New Market Tax Credits. Additional sources of funding such as a state broadband grant program would facilitate the development of public-private partnerships. Approximately 25 states have created broadband grant funds.

**Resources developed by national and international organizations may include examples of municipalities and other public entities providing broadband which is legal in many states, but not Nebraska. These resources contain other material which may be helpful.*

NEBRASKA COOPERATIVES

Rural Broadband and Cooperatives

August 2019

By Gregory McKee

Cooperatives provide goods and services throughout the economy. Recent efforts to expand rural broadband access has led to questions about using the cooperative business model to provide broadband. This document explains what cooperatives are, how they have been used for broadband, discusses whether states can facilitate the use of cooperatives, and steps for starting rural broadband cooperatives.

What Is a Cooperative?

Cooperatives are user-owned and user-controlled businesses formed to benefit a group of members. Cooperatives have particular features.

1. **The users receive the benefits.** The group involved in the cooperative is usually the group that will benefit most from having the business in place. Users get the benefits of the business by using it. The benefits are distributed in proportion to use, not ownership.
2. **The users own the business.** The group involved with the cooperative provides equity. Additional capital may come from loans or grants.
3. **The users control the business.** The cooperative's users are ultimately responsible to set the direction for it. Users vote, democratically, to set major policies and to elect a board of directors composed of the cooperative's users. Users draw up bylaws to describe how the cooperative functions.

These features assure cooperatives provide a mutual benefit. Cooperatives are designed to reward use, encourage users to commit to using the business's services, and encourage users to voice opinions about how the business is doing.

Cooperatives Provide Rural Broadband

Cooperatives are being used around the United States to provide broadband service.

1. **Cooperatives deploy broadband.** Some telecommunications cooperatives have expanded their service offerings to include broadband. Electricity distribution cooperatives have expanded infrastructure to provide broadband services themselves, through a subsidiary, or through an affiliate business. Hundreds of business arrangements, each unique to the circumstances and needs of the users, among these cooperatives can be found.

NEBRASKA COOPERATIVES

2. **Cooperatives facilitate community organization for broadband service.** Less common than utility cooperative affiliations are cooperatives organized to facilitate broadband availability. Maryland Broadband Cooperative, Mid-Atlantic Broadband Cooperative, and Michigan Broadband Cooperative work with local partners to facilitate community broadband demand, leverage existing infrastructure, or help design partnerships among broadband access providers. These cooperatives may also provide shared administrative services for internet service providers.

The number of cooperatives performing these functions is growing. Requests for broadband access is often initially made by users of existing utility cooperatives.

Potential Role of State Governments to Facilitate Broadband Cooperatives Development

State governments may pursue a range of policies as broadband initiatives. These include efforts to use, finance, or provide broadband infrastructure.

1. **Policies on use.** State governments could use its leadership role to assess, stimulate or aggregate broadband demand. State resources could be used to educate about the benefits of broadband in rural communities. In Nebraska, the Rural Broadband Task Force has been created to investigate rural broadband availability and mechanisms whereby broadband access can be improved. These educational efforts may lead to community interest in forming cooperatives.
2. **Financial policies.** Governments could provide subsidies for broadband users or providers. These could be direct incentives, such as grants or tax credits. They could also be indirect, such as helping to plan or design networks or to provide equipment grants. Financial policies could be used to complement member equity to fund broadband network development.
3. **Policies for infrastructure development.** Governments could develop policies that affect provision of network infrastructure. In Nebraska this has included explicit permission to lease dark fiber, subject to certain restrictions. This permission could facilitate infrastructure partnerships between wholesale fiber capacity providers and cooperative internet service providers.

How to Get Started

Cooperatives begin when a large enough group agrees to solve an economic problem by creating their own business. Community members agree on an economic problem to solve and whether a cooperative is the right kind of business to do it. The group must study whether the benefits of starting a new business outweigh its risks. Prospective users of the business provide equity, pursue grants, and obtain financing to purchase sufficient assets to begin operations. Subsequent steps include incorporation, hiring professional staff, and forming a board of directors to oversee the business.

NEBRASKA COOPERATIVES

Resources for forming cooperatives are available through the Nebraska Cooperative Development Center (<https://ncdc.unl.edu/>).

Conclusion

Broadband access options are critical for obtaining a variety of services. Rural communities seek broadband access. Cooperatives, owned and controlled by their users, could be used to provide broadband services in rural areas. State governments could provide assistance to encourage broadband use and create incentives for infrastructure.

Additional Reading

1. "2015 NTCA Broadband Survey Report." (2016). National Telecommunications Cooperative Association. <https://www.ntca.org/2015-ntca-broadband-survey-report>
2. Byers, Anne. "Digital Divide Index Shows Broadband Availability Improving, but Nebraska Lagging in Download and Upload Speeds and Adoption." (2017). Nebraska Information Technology Commission. https://nitc.nebraska.gov/community_council/documents/newsletters/Nebraska_and_DDIApril2017.pdf
3. Carlson, Scott and Christopher Mitchell. "RS Fiber: Fertile Fields for New Rural Internet Cooperative." (2016). Institute for Local Self-reliance. <https://ilsr.org/wp-content/uploads/downloads/2016/05/RS-Fiber-Report-2016.pdf>
4. Cody, Eric. "Electric Cooperatives Bring High-Speed Communications to Underserved Areas: Insights from NRECA's 2018 Twelve Broadband Case Studies." (2019). National Rural Electric Cooperative Association. <https://www.cooperative.com/programs-services/bts/Documents/Reports/Report-Broadband-Case-Studies-Summary-March-2019.pdf>
5. Grant, Alison, Wallace Tyner, and Larry DeBoer. "Estimation of the Net Benefits of Indiana Statewide Adoption of Rural Broadband." (2018). Perdue University Center for Regional Development. <https://www.purdue.edu/newsroom/releases/2018/Q3/report-broadband-access-would-benefit-rural-areas,-state.html>
6. Pitman, Lynn and Mary Kluz. "Cooperatives and Rural Broadband: A Selective Survey." (2017). University of Wisconsin Center for Cooperatives. <https://resources.uwcc.wisc.edu/Utilities/CooperativesandBroadbandSurvey2017.pdf>
7. Schmit, Todd, and Roberta Severson. "Exploring the Feasibility of a Rural Broadband Cooperative in Northern New York." *Extension Bulletin* 5 (2017). <https://dyson.cornell.edu/wp-content/uploads/sites/5/2019/02/Cornell-Dyson-eb1705.pdf>
8. "The Value of a Broadband Backbone for America's Electric Cooperatives: A Benefit Assessment Study". (2018). <https://www.cooperative.com/topics/telecommunications-broadband/Pages/The-Value-of-a-Broadband-Backbone-for-Electric-Cooperatives.aspx>

Broadband Resources for Nebraska Communities

Broadband Planning

Intelligent Community Extension Program – Asset-mapping approach to help rural communities or neighborhoods in urban areas to identify their assets to transition to a digital mindset.

Intelligent Community Checklist for Rural Communities *

<https://pcrd.purdue.edu/checklist>

Other resources from the International Intelligent Community Forum*

<https://www.intelligentcommunity.org/>

Members of the University of Nebraska Extension Community Vitality Initiative field or statewide staff may be able to facilitate broadband planning effort in your community. See

<https://communityvitality.unl.edu/CVIDirectory> for a list of contacts.

Leveraging Broadband in Your Community: A Workbook to Help Communities Stimulate Broadband Development (Nebraska Broadband Initiative, 2014)

<http://broadband.nebraska.gov/workbook/html5/index.html>

Becoming Broadband Ready Toolkit by Next Century Cities (2019)*

<https://nextcenturycities.org/becoming-broadband-ready/>

**Resources developed by national and international organizations may include examples of municipalities and other public entities providing broadband which is legal in many states, but not Nebraska.*

Community Broadband Success Stories

<https://nitc.nebraska.gov/news/community/community.html>

Cooperatives

Nebraska Cooperative Development Center

<https://ncdc.unl.edu/>

Contact Charlotte Narjes (cnarjes1@unl.edu, 402-472-1724) or Dr. Greg McKee (gmckee3@unl.edu, 402-472-2034) for more information.

Homework Gap and Library Broadband

Nebraska Library Commission Library Innovation Studios Grant

<http://nlc.nebraska.gov/grants/InnovationStudios/>

Nebraska Library Commission Sparks Grant—Nebraska Schools & Libraries: Breaking the Ice and Igniting Internet Relationships

<http://nlc.nebraska.gov/grants/sparks/>

Contact Holly Woldt (holly.woldt@nebraska.gov, 402-471-7980) for information about strategies to improve library broadband, Christa Porter (christa.porter@nebraska.gov, 402-471-3107) for assistance with library E-Rate applications, and Tom Rolfes (Tom.Rolfes@nebraska.gov, 402-471-7969) for information on strategies to address the homework gap.

Maps and Data

Nebraska Broadband Facts Infographic (PDF)

https://ruralbroadband.nebraska.gov/resources/facts/Broadband_Infographic.pdf

The **Nebraska Broadband Map** has information on broadband availability by speed tier and technology as well as information on areas eligible for funding from federal and state broadband programs.

<https://broadbandmap.nebraska.gov>

Click on the layers button in the bottom left corner to select layers.

The **FCC Broadband Map** has some good analytical capabilities.

<https://broadbandmap.fcc.gov>

Additional reports based on FCC Form 477 data are available from the 2018 FCC Communications Marketplace at <https://docs.fcc.gov/public/attachments/FCC-18-181A9.pdf>

Broadband Subscription Data by county can be found at the U.S. Census Bureau's American Fact Finder at <https://factfinder.census.gov/>

Use the Guided Search, Select Housing/Physical Characteristic/Internet Access (or Computer Availability); Select Geographic Area; Select Table. Use the 2017 ACS 5-year estimate if you want all counties in Nebraska.

Nebraska Broadband Surveys

Nebraska Rural Poll 2018 (PDF)

<https://ruralpoll.unl.edu/pdf/18economicdev.pdf>

Nebraska Digital Readiness Report 2018 (PDF)

<https://agecon.unl.edu/research/DigitalReadinessReportNebraska2018.pdf>

Broadband 101 & 102 Videos—2017 Nebraska Broadband Today! Conference

- Broadband 101: Broadband Technologies and Telecom Policy in Nebraska Videos
 - [Broadband 101 Part 1: What is Broadband?](#)
 - [Broadband 101 Part 2: Bits, Bytes and Other Important Terms](#)
 - [Broadband 101 Part 3: Broadband Technologies—Overview and DSL](#)
 - [Broadband 101 Part 4: Broadband Technologies—Cable Modem](#)
 - [Broadband 101 Part 5: Broadband Technologies—Fiber](#)
 - [Broadband 101 Part 6: Broadband Technologies—Wireless and Satellite](#)
 - [Broadband 101 Part 7: Telecom Policy in Nebraska](#)
- [Broadband 102: Better Together: How Communities and Telecommunications Providers Can Work Together](#)

Or search for “Broadband 101 OCIONebraska” or “Broadband 102 OCIONebraska.”