

A woman with long dark hair is shown in profile, looking at a computer monitor. The monitor displays a grid of small images. A keyboard is visible in the foreground. The background is blurred, showing what appears to be an office or library setting.

**Leveraging Utility Infrastructure to
Bridge the Digital Divide
Before the NARUC Broadband Expansion Task Force
November 5, 2020**

Today's Presentation

- **Overview of Ameren**
- **Background**
 - Utilities' Need to Deploy Broadband Infrastructure to Provide Utility Service
 - Maximizing the Value of Utility Assets for Customer Benefit
 - The Necessity of Broadband
- **Case Study: Bollinger County, Missouri***
- **Benefits of Utility Broadband: Powering the Quality of Life**
- **State Actions to Realize the Benefits of Utility Broadband**

* The Bollinger County case study is presented as an example of how regulated utilities could contribute to broadband solutions in an area where the utility has existing assets for the provision of electric service. It does not necessarily represent the intentions of Ameren Missouri, Ameren Illinois or Ameren Transmission Company.

Ameren at a Glance



64,000

square mile service territory

10,300 MW

electric generation

7,900

circuit miles of electric transmission lines

\$11 billion*

2018-2022 planned capital expenditures



8,800

employees

6 million

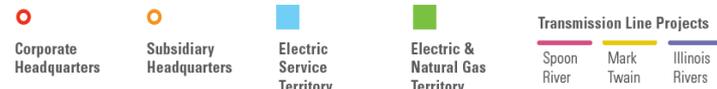
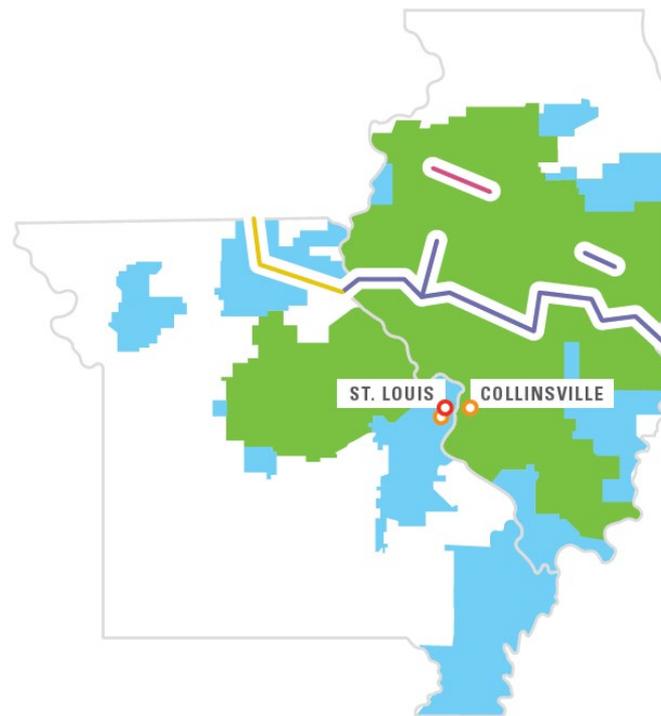
population served in Missouri and Illinois

2.4 million

electric customers

900,000 +

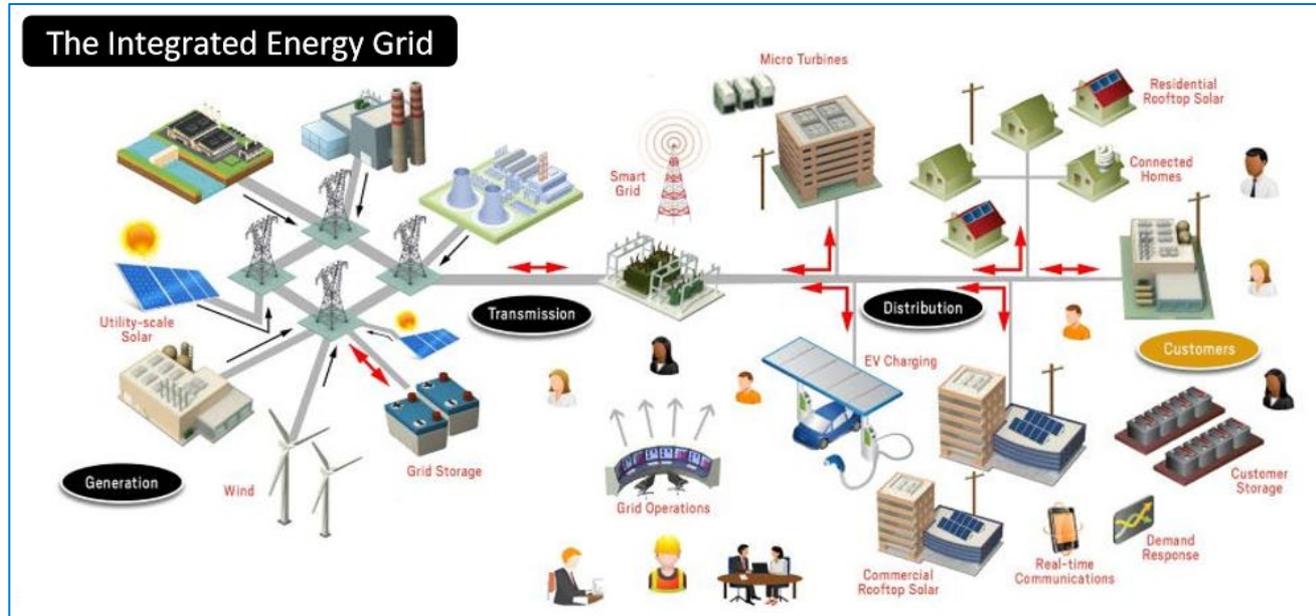
natural gas customers



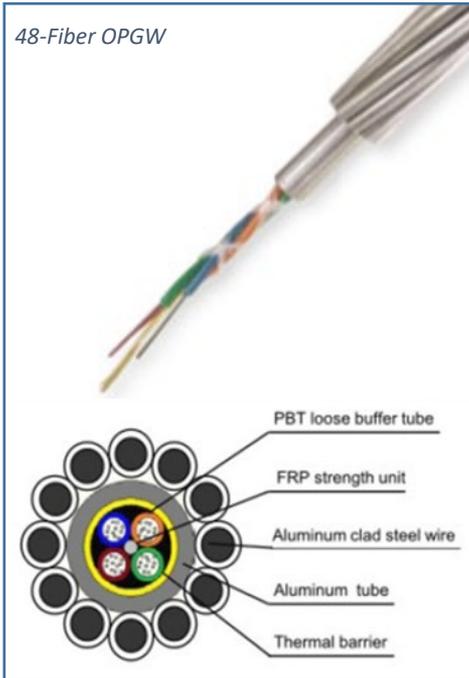
* Issued and effective as of Feb. 14, 2019 earnings conference call.

Utilities' Need to Deploy Broadband Infrastructure to Provide Utility Service

- Regulated utilities are prudently modernizing their electric energy grids by investing to provide the reliability and resiliency necessary to power the modern homes and businesses making up today's communities.
- Incumbent telecommunications providers are migrating away from supporting infrastructure critical grid operations.
- As a result, electric utilities must invest in reliable, resilient utility broadband networks.



Maximizing Value of Utility Assets for Customer Benefit



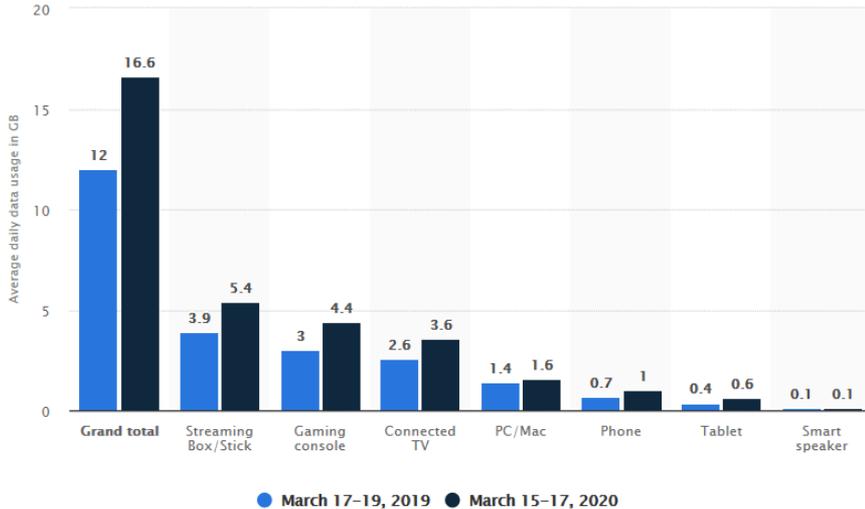
- It is cost effective and prudent for utilities to design today's broadband infrastructure to support future needs.
- Utilities may have temporarily available spare capacity capable of being utilized by partnering broadband service providers to help narrow the digital divide.
- It is prudent for regulated utilities to monetize spare broadband capacity to help keep customer rates affordable.
 - This is similar to selling excess economic power produced by rate-based generating stations into power markets.
- Revenues produced through monetization of spare broadband capacity should be applied to benefit customers through reduction of customer revenue requirements.
- Ameren has no intention of becoming a telecommunications or internet service provider.

The Necessity of Broadband



Expansive broadband infrastructure has the potential to improve quality of life and productivity in the home, modernize education and health care, and provide businesses with options to compete and expand, **making communities with broadband more attractive locations to live and do business.**

Comparison of average daily in-home data usage in the United States by device type in March 2019 and March 2020*



YEAR-OVER-YEAR INCREASE IN MONTHLY IN-HOME DATA USAGE FROM MARCH 1-17, 2020*

18%

INCREASE IN EDUCATION APP DOWNLOADS FROM MARCH 2-16, 2020*

1,087%

POWERING THE QUALITY OF LIFE

*Areas of the United States where broadband service has been deployed have **20.8% higher average per capita incomes, 23.8% higher average median household incomes, 4.8% lower average poverty rates and enjoy a higher quality of life than Americans living in areas without broadband service.***

- The FCC's 2019 Broadband Deployment Report

*Data from <https://www.statista.com/statistics/1106863/covid-19-daily-in-home-data-usage-change-us-2020/>

Case Study – Bollinger County, Missouri

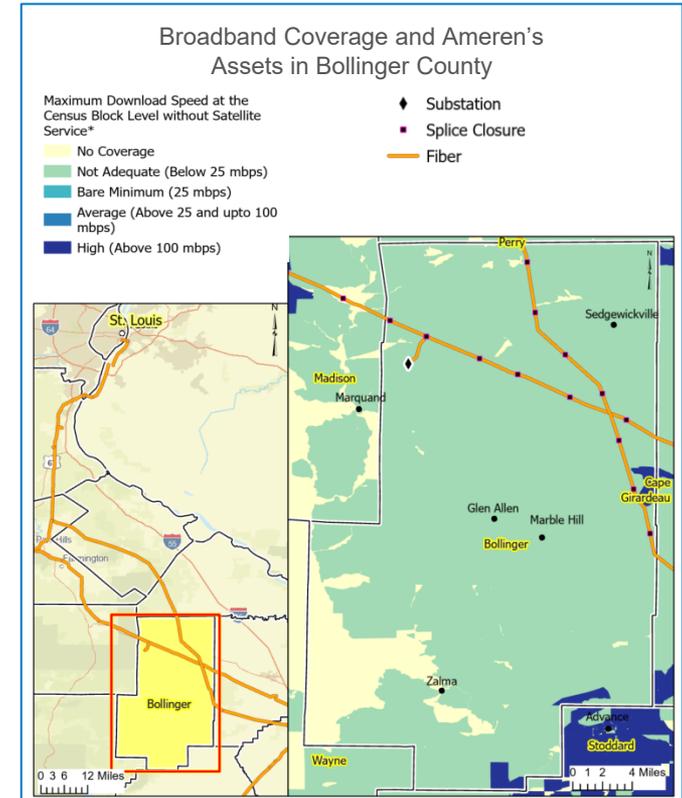


Quick Facts

- Located approximately 100 miles south of St. Louis, Missouri
- ~4,600 family households with population density of 20 persons per square mile
- Residents access internet over cell phone networks, residential DSL service, satellite-based service, at the County Library or from Wi-Fi offered at the local McDonald's.
 - None of these means of internet access offer residents “broadband” as it is currently defined by the FCC (25/3 Mbps).

How Regulated Utility Assets Can Help

- Ameren Missouri has existing electric transmission with fiber in OPGW running through portions of Bollinger County
- Ameren Missouri’s fiber could be utilized by broadband service providers to connect to St. Louis internet hubs and extend broadband internet service to Bollinger County.
- Regulated utility customers could significantly benefit from new revenues applied to offset customer revenue requirements.



Sources:

Census QuickFacts, Census.gov. <https://www.census.gov/quickfacts/fact/table/stlouiscountymissouri,MO,bollingercountymissouri/PST045219> [Retrieved on 10,28, 2020]

University of Missouri System Collaborators. *Report of June 1, 2020 Workshop: Bringing Broadband to a Missouri Community*, at 26, 28 (July 1, 2020).

RDOF and CAF Eligible Combined using the CAF Eligible Areas and the final List of RDOF Eligible Areas data updated October 8,2020 from Federal Communications Commission

Benefits of Utility Broadband: Powering the Quality of Life



Opportunities to benefit utility customers by maximizing the value of the broadband infrastructure they support through utility rates are many:

- New revenues to offset customer revenue requirements
- Economic development enabled by utility broadband attracting and retaining businesses, enabling e-commerce, creating jobs.
- Growing electric demand through economic development, reducing KWh rates
- Expanding potential for competition and choices among retail broadband providers.
- Stretch limited broadband funding resources
- Reduced impact on the environment by utilizing existing infrastructure.



State Actions to Realize the Benefits of Utility Broadband



State Regulatory Provisions

- To better enable use of utility broadband assets by third-party broadband service providers and maximize value for utility customers, regulated utilities need to be able to make minor prudent investments and recover associated costs.
- Investments and costs to enable third-party use of regulated utility broadband infrastructure should be outweighed by resulting revenues and produce a net positive benefit for utility customers.
- Streamlining requirements for approval of individual lease agreements can help accelerate utility participation.
- State commissions can actively participate in FCC proceedings that may result in higher costs for utility customers.

State Legislative Provisions

State legislation can be necessary for regulated utilities' participation in deployment of broadband solutions and is generally necessary when:

- Existing utility easements do not permit use of assets for provision of broadband services.
- Condemnation rights to obtain easements for provision of broadband services are necessary to reduce risk.
- Prohibitions on regulated utilities exist in statute.

Questions?

Today's Presenters

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Economic Development Benefits of Extending Broadband to Rural America



If rural small businesses adopt more online tools and technology, “their gross sales could increase by an additional 20.8% during the next three years, the equivalent of \$84.5 billion per year. This increase in sales could contribute an additional \$46.9 billion value added to U.S. GDP per year and create 360,054 jobs with \$14.8 billion wages per year. By unlocking the digital potential of rural small businesses, the U.S. GDP would gain an additional 0.2% per year and reduce the number of unemployed people by nearly 6%.”

US Chamber of Commerce, *Unlocking the Digital Potential of Rural America*, at 6 (March 2019).

According to the American Farm Bureau Federation, “U.S. agriculture would realize benefits amounting to nearly 18 percent of total U.S. market production – or \$64.5 billion annually—from broadband availability and adoption of digital agricultural technologies.”

Nelson, Megan. American Farm Bureau Federation, *Rural Broadband Critical for Huge Agricultural Benefits* (July 9, 2019).

Intel has cited these benefits of rural broadband globally, which remain true today:

1. Increase economic opportunities in rural areas. Broadband gives citizens in rural and remote areas new job opportunities, including the ability to work from home, which reduces travel time, traffic congestion and air pollution.
2. Reduce urban desire. Affordable broadband access can improve the economies of rural areas, driving up incomes, improving lifestyles, and reducing the need and desire to move to cities.
3. Improve skills and education. Broadband access increases educational opportunities in rural areas and supports development of ICT skills. This preparation enables rural citizens to work from home or find better employment in urban areas, reducing the strain on social services.
4. Improve urban life. In conjunction with other technologies, broadband can facilitate decentralized work environments that improve productivity while also reducing energy demands, noise pollution, vehicle emissions and other forms of pollution.

Realizing the Benefits of Broadband, Intel White Paper, at 5 (2010).

In Missouri, according to the U.S. Chamber, the potential impact of extending broadband to rural areas and businesses would yield \$1,488.1 million in additional sales, 6,751 jobs, and \$273.6 million in wages earned in Missouri.

US Chamber of Commerce, *Unlocking the Digital Potential of Rural America*, at 58, Table A7 (March 2019).