

Broadband Infrastructure Utility-Leasing



Executive Summary

According to the 2019 American Community Survey, 15% of Missourians do not have access to broadband internet. Filed in the 2022 Missouri Legislative Session, [SB 848](#) and [HB 2015](#) would establish the Electrical Corporation Broadband Authorization Act, allowing electrical corporations to provide broadband infrastructure services to a third-party for resale to an end-customer. Under current Missouri Statute ([RsMO 386.020](#)), electrical corporations do not include municipally-owned electric utilities and rural electric cooperatives. An electrical corporation would not be able to sell broadband internet services directly to an end-user under these bills. Additionally, investment in broadband infrastructure will be included in the calculation of an electrical corporation's base rate. This utility-leasing model is a relatively new method to expand broadband deployment.

Highlights

- Surveys by West Monroe, a national consulting firm, find that internet service providers (ISPs) are interested in leasing fiber infrastructure from utility companies.
- Huntsville, AL saw large increases in internet speeds after the implementation of a fiber leasing model with its city owned utility.
- City Utilities in Springfield, MO and Ameren have sought to lease their fiber network in Missouri.

Limitations

- Due to the recent implementation of the utility-leasing model, research investigating best practices and its impact on broadband availability and adoption are not yet available.
- The amount of unused fiber available for lease in Missouri is not currently publicly available.

Research Background

Broadband in Missouri

In 2019, 15% of Missouri citizens did not have a broadband internet subscription according to the American Community Survey.¹ There are several measured benefits of having a broadband subscription including higher employment, increased agricultural output, and reduced time and cost barriers to healthcare services. There are many policies that a state can consider to expand broadband access. To read more about these topics, see our Science Notes on [Broadband](#)

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[Deployment](#), [Broadband Impact](#), [State-Level Broadband Policies](#), [Telemedicine](#), and [Public-Private Partnerships for Broadband](#).

Electrical Corporation Fiber Optic Infrastructure

Electrical corporations are uniquely situated in that they contribute to infrastructure that already provides electricity to the United States.² Many electrical corporations may use fiber optic cable to monitor and control their power delivery systems. However, it is difficult to find public data regarding the current levels of fiber optic cable deployment throughout existing utility infrastructure. Taking advantage of this infrastructure, and allowing utility companies to lease their fiber optic network to internet service providers (ISPs), is one method that is used to attempt to expand broadband access to unserved and underserved communities.

Indirect reports can be used to try to infer whether or not electric corporations are interested in implementing fiber infrastructure and their potential interests in leasing excess fiber infrastructure to ISPs. A report from Navigant Research suggests, from a business perspective, that expanding a fiber optic network may be important for a utility company's long-term success.³ Fiber optic networks are important for utility companies, enabling grid performance improvements by connecting them to smart devices as part of the "smart grid" and preparing them as the economy moves towards distributed electricity generation.⁴

In Missouri, the Ameren Corporation, researchers from Missouri S&T, and Hyperion Inc., a technology company based in Ontario, Canada, are collaborating to conduct research on fiber optic cables.⁵ The partnership is researching the use of fiber optic cables to monitor high voltage power lines and equipment, seeking to improve the delivery and reliability of electricity services. Research efforts like this anecdotally indicate interest of local utility companies to explore uses of fiber optic cables in their existing infrastructure.

ISP Interest

Filed in the 2022 Missouri legislative session, [HB 2015](#) and [SB 848](#) would establish the Electrical Corporation Broadband Authorization Act, allowing electrical corporations to provide broadband infrastructure services to a third-party for resale to an end-customer. Under current Missouri Statute ([RsMO 386.020](#)), electrical corporations do not include municipally-owned electric utilities and rural electric cooperatives. These bills do not allow electrical corporations to sell broadband services directly to end-users. Instead, electrical corporations would lease their broadband infrastructure to broadband service providers who would then provide internet services to end-users.

West Monroe, a national consulting firm, performed surveys of ISPs in the U.S. to gauge interest in leasing fiber optic infrastructure from utility companies.⁶ Of respondents, 80% stated that they had not leased from a utility company in the past. However, all respondents indicated some level of likelihood that they would lease in the future, with 68% stating they were "extremely likely" and 20% "moderately likely". ISPs also stated that price, location, and

network reliability were the most important factors when choosing a vendor for fiber optics. Lastly, 72% of respondents would lease specifically from a utility in order to serve unserved and underserved neighborhoods or as a cost-effective alternative to building out their own infrastructure.

Implementation Considerations

Unclear determination of how the revenue from leasing fiber optic infrastructure will be used can lead to pushback from the public. In 2017, Southern California Edison and Pacific Gas & Electric in California both sought to expand their capabilities as fiber providers, expanding into the telecommunications space.⁶ Revenues for each utility were inconsistently distributed among shareholders and ratepayers, leading to pushback from consumer advocacy groups and the California Public Utilities Commission. As a result, both utilities withdrew their applications to proceed.

There is not enough public data available on current electric utility fiber optic infrastructure to determine how much investment utility companies will need to take advantage of the proposed bills. Scientific literature on this topic is also limited to make a clear determination of the impacts of these bills, and what specific details of implementation lead to a successful utility-leasing model. Anecdotal examples at the municipal and state level around the nation can provide an indication of their potential impact.

At the municipal level, in 2016 Huntsville, AL implemented a utility-lease model that allowed the municipal utility company, Huntsville Utilities, to provide access to their excess fiber capacity to third parties.⁷ This coincided with an announcement by Huntsville Utilities that they would expand their fiber network. Their first partner was Google Fiber, who deployed gigabit internet to residential and small business customers.⁸ In 2019, Alabama signed [HB 400](#) explicitly authorizing electric providers and others to provide broadband services using the capabilities within their electric easements. An analysis by HighSpeedInternet.com, a website dedicated to tracking ISPs across America, showed that Huntsville had the largest jump in internet speeds from February 2020–February 2021.⁹ Additionally, the Fiber Broadband Association, an all-fiber trade association, awarded Huntsville, AL with the Gig City Award in 2021 and in part, credited the utility-lease model.¹⁰

In Missouri, public and private entities have started the process to lease excess fiber capacity even without explicit authority from the state. In 2019, City Utilities in Springfield, MO announced plans to expand their fiber network by over 1,000 miles and to make that fiber available for lease to broadband providers.¹¹ CenturyLink was their first customer. In 2021, the Missouri Public Service Commission approved an agreement for Ameren to lease fiber capacity to MMC Network Services.¹²

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