

KNOXVILLE UTILITIES BOARD Fiber to the Home Business Plan

*Connecting
Knoxville at the
Speed of Light*



Connecting our Community

KUB's electric system spans more than 688 square miles and serves more than 210,000 customers each day. In order to meet the changing needs and expectations of its customers, KUB will need to make upgrades on its electric grid and implement innovative technologies that improve reliability and efficiency.

Many of the applications needed for these improvements depend on fast and reliable communication throughout the service territory that can be best provided by an extensive fiber system.

In addition to improving KUB's electric system, the electric fiber network required for these systems would position KUB to be able to provide broadband services to meet the growing needs of its customers and community.

Since its inception, KUB has been committed to serving its customers and improving their quality of life by providing utility services that are safe, reliable, and affordable. In 2020, during the global pandemic, that mission became more important than ever and KUB began thinking of other ways it could serve the community.

As the need for remote learning and work rose quickly, so did the demand for high-speed internet. The gaps in current services became evident, as that demand was not met in many households and entire communities, especially in rural areas. These needs and others generated interest in KUB's research from both local and state government officials

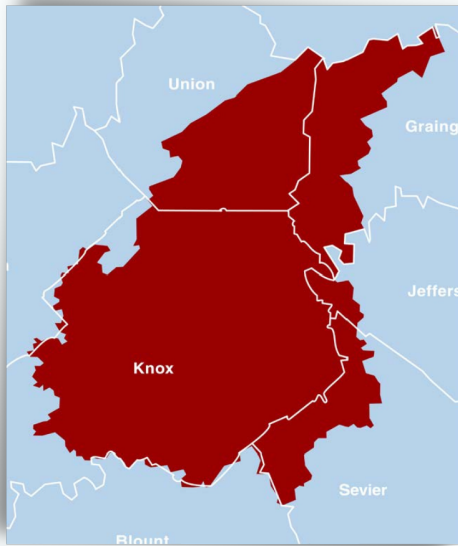
It became apparent that many KUB customers, even those who live in densely populated areas, have limited access to reliable broadband services. KUB found that most existing providers are unable to offer symmetrical upload and download speeds, meaning the upload speed is significantly slower than download speeds. This symmetry is something that KUB customers desire and something that KUB would be positioned to offer.

KUB understands the issues facing our customers and understands their desire to have reliable, fast, and widely available internet service. KUB is also uniquely positioned to provide these services due to infrastructure upgrades that are planned or have already been implemented.

76% OF KUB CUSTOMERS WHO ANSWERED A RECENT SURVEY EXPRESSED INTEREST IN KUB OFFERING BROADBAND SERVICES.

15% OF 40,000 KNOX COUNTY SCHOOLS HOUSEHOLDS (6,000 HOUSEHOLDS) DO NOT CURRENTLY HAVE WIRED INTERNET SERVICES, AND 2% (800 HOUSEHOLDS) DO NOT HAVE ACCESS TO WIRED SERVICE.

KUB's Service Territory



If approved, KUB plans to offer broadband service to all customers in its electric service territory. KUB hopes to begin offering services beginning in 2022 and expects to reach all customers in the service territory by 2029.

Proposed Broadband Services

KUB's proposed residential internet services begin at 1 Gbps for both download and upload speeds. **KUB plans to offer a price below the current average price of existing competitors and at the entry level of one gigabit speeds.** KUB also seeks to provide an enhanced customer experience with the managed router service that provides optimization of wi-fi service through local technical support.

KUB also plans to provide internet services to business customers ranging from a basic 500 Mbps data symmetrical service for small businesses to professional data services with managed routers and 1 Gbps symmetrical service. **Similar to KUB's residential products, KUB seeks to provide business internet services with superior speeds at a competitive market value.**

Phone and Television Services

KUB plans to contract with a third-party voice over IP provider that will utilize KUB's broadband network to provide standard features including caller identification and call waiting as part of the phone service. KUB also plans to offer competitive television packages to its broadband customers.

A Competitive Service

KUB believes that offering a high-speed internet service with **symmetrical download and upload speeds with no limit on data usage** will differentiate KUB's service from existing providers. Incumbent providers do not widely offer these attributes and, as such, KUB's products provide a distinct and unique choice for service in the Knoxville area.

Leading providers in the market often provide promotional discounts for the first year of service. While KUB does not anticipate promotional pricing, the planned retail rate remains competitive with the market. In addition, many competitors have added costs such as equipment rental, broadcast and sports television fees, and taxes not reflected in their retail rates. KUB anticipates the pass through of taxes only to the retail customer. As a result, the billed rates to customers are anticipated to be at or below the rates of leading providers in the market.

KUB also plans to reach customers that private companies can only serve at high costs to the customer. There are areas in KUB's service territory that do not have access to wired internet service because it is not currently economically feasible for the incumbent providers to extend their systems into those areas. There are several examples that have been reported to KUB through its research where the cost to serve individual residences is simply not feasible in the current competitive environment.

Funding the Plan

The construction of the 5,000 miles of distribution fiber is projected to cost \$702M over 10 years. This investment will enable a smarter, more reliable electric grid and will also enable broadband service. KUB expects to pay for it utilizing a combination of debt, rates, and fiber access payments.

The Electric Division will provide \$35 million in loans to the Fiber Division over the first two years to fund capital and operational expenses with anticipated re-payment by full build out in year nine.

Funding the Fiber Division requires previously planned electric rate increases to be slightly higher and sooner. If approved, KUB's electric customers can expect to see three consecutive 3% rate increases beginning in 2022, with approximately half of the increases to help fund the fiber system and the other half to fund other electric infrastructure improvements. The average residential customer will see a \$10.80 increase on their monthly bill after all three increases take effect, but revenue from the Fiber Division will help stabilize electric rates for years to come.

Broader Economic Impacts

The creation of a fiber division at KUB is expected to generate nearly 200 new jobs for KUB and thousands more in the Knoxville area. A municipal broadband system gives Knoxville a competitive advantage over other cities and can help drive growth in the surrounding rural areas.

After ten years, Chattanooga's municipal broadband system helped drive \$2.7 billion in economic benefits to the region, including 9,500 new jobs and increased business investments.

Benefits of Municipal Broadband

Compared to services provided by private companies, **municipal broadband is faster**. Municipal broadband provides 100% symmetrical fiber, meaning faster download and upload times than many existing systems - lightning fast.

Municipal broadband also serves everyone. Unlike private providers, a new KUB system would go the last mile to everyone who receives KUB electric service. **Municipal broadband is also homegrown and operated**. It is a local solution that keeps jobs here and is responsive to the needs of the community.

Municipal broadband provides better value. Rates are generally more affordable. Even customers who don't subscribe to KUB broadband can benefit as private companies adjust their rates to compete.

