FTTH Customer FAQ

Washington EMC is excited to announce our plans to better serve our membership by introducing world-class fiber broadband Internet.

Our electric cooperative will be partnering with rural fiber-optic leader Conexon Connect to build a fiber-to-the-home (FTTH) network – the gold standard of communications transmission – over the existing electric distribution infrastructure that will take fiber directly into your homes and businesses and deliver reliable, high-speed internet services.

The Fiber-to-the-Home Project

What is the scope of the FTTH buildout?

This FTTH buildout, encompassing 3,000 miles of fiber, will ultimately reach 100% of Washington EMC's 12,150 members in Washington, Johnson, Hancock, Baldwin, Warren, Laurens, Emanuel, Glascock, Jefferson, and Wilkinson counties.

Who is building the network?

Washington EMC is partnering with Conexon Connect, the newly formed internet services provider (ISP) arm of rural fiber broadband design and construction management leader Conexon for this ambitious project. Under the partnership, design and construction of the FTTH network will be led by Conexon, with the network managed and operated by Connect.

Connect was formed to operate and manage cooperative and investor-owned fiber-to-the-home networks. Connect leverages Conexon's decades of co-op operations, fiber-optic design and construction, telecommunications, federal and state lobbying and customer experience management expertise to successfully launch and operate projects. The Connect approach is to work exclusively with electric cooperatives such as Washington EMC to launch and deploy high-speed fiber-optic networks to offer world-class fiber broadband to 100% of EMC members.

When will construction of the network begin?

Even though you may not see it yet, the project is already underway! The Washington EMC and Conexon Connect teams are hard at work, designing and mapping the network – ironing out the path the fiber will take, making sure the footprint follows a logical and efficient path along our electric infrastructure and nearby communities. Attention to detail in this early stage with design will prevent missteps in the long run and enable us to offer broadband affordably to members in the quickest, most efficient way possible.

A date to begin construction has not yet been finalized. We're working with our construction partners, cities, counties, as well as managing right-of-way rules, landscape and a host of others as we finalize the design and get ready to build. We will continue to communicate all milestones and new information with our membership frequently and consistently. Make sure you are following our Washington EMC Facebook and Conexon Connect Facebook for the latest as well as the Washington EMC website at www.washingtonemc.com!

Where will the internet service be offered? Where will you get started first?

The buildout will be completed in phases, and eventually, it will reach all of our 12,150 members in Washington, Johnson, Hancock, Baldwin, Warren, Laurens, Emanuel, Glascock, Jefferson, and Wilkinson counties.

Currently, we are finalizing network design, permitting, contractor selection and other processes that are paving the way for a "make-ready" start in our first phase. Make-ready is really just a fancy term for inspecting our electric infrastructure to ensure it can accommodate the fiber cable, and replacing or repairing poles when needed. Keep in mind make-ready is just the start and actual fiber installation will follow several weeks later, weather and other circumstances permitting. We have not yet determined what areas and neighborhoods will be included in the first phase, but we will update you as soon as this information is decided!

Will my electric bill increase to pay for the FTTH network?

No. Electric rates will not be raised to subsidize the buildout or deployment. Together Washington EMC and Conexon are investing over $54.5 million to build the network, which will enable improved electric service and increased reliability through smart grid capabilities in addition to delivering world-class internet access.

The Technology – Internet Service

What is a fiber-optic network?

Fiber-optic systems are made up of tiny strands of glass that carry data using light waves, resulting in much faster internet speeds and better reliability than traditional copper lines. Most internet providers use fiber in their systems but use copper lines for the final connections to the home, resulting in slower speeds. Washington EMC, Conexon, and fellow cooperatives believe 100% FTTH is the best, most sustainable communications choice. With our FTTH service, we offer "symmetrical" speeds, meaning you'll enjoy the same high speeds whether uploading or downloading.

What makes fiber so special?

A fiber-optic network sends and receives data at the speed of light. In addition to super-fast transmission speeds, a fiber-optic network can carry an extremely high amount of data. Fiber is also more reliable than other networks, because it's less susceptible to interference and damage from lightning and other acts of nature.

What does the term "broadband" mean?

Broadband commonly refers to high-speed internet access that is always on and faster than traditional dial-up access. Broadband fiber-optic networks can deliver voice, data, video and email services over the internet.

The Next Steps – Getting Service

How will I get FTTH services through the co-op?

Washington EMC and Conexon Connect are partnering for this service. The operational details around billing and subscribing for service are currently being finalized. We will communicate those details as they are finalized.

What internet packages will be available?

Packages will be offered with a minimum of 100 megabits (Mbps) per second upload and download speeds (symmetrical service) for $49.95 per month. Packages will also be offered with a maximum of 1,000 Mbps (1 gigabit) per second upload and download speeds for $79.95 per month. Managed Wi-Fi services will be included for $4.95 per month for either speed package.

Are there data caps with this service?

There will be no data caps or bandwidth throttling (intentional slowing or speeding of internet service) with this service.

How long will it take before we have access to the service? What is involved in the process of building a fiber-to-the-home network?

Construction of a fiber network is a complex process involving numerous contractors and dependent on a number of variables that include length of the circuit, terrain and soils, weather, and other external factors. Most distribution lines are a mix of overhead and underground construction. Construction is divided into seven phases for an overhead distribution project and it will likely be several months before members are connected.

The Benefits

Why are you offering broadband service?

Our communities have long suffered from a lack of broadband equality – access to the same speeds and capabilities as those in less rural areas. Broadband availability across our service area will help close the digital divide between those who have access to advanced technology and those who don't. A few of the many advantages of broadband access are:

- Online teaching capabilities allowing our students to learn from home
- Healthcare benefits such as telemedicine
- Work-from-home interoffice connectivity and videoconferencing capabilities that will help professionals stay in their homes while being optimally productive
- Quality of life improvements through enhanced communications
- Economic development and growth in rural areas. Access to high-speed internet can raise home prices and attract businesses to communities.

In addition, by connecting Washington EMC's electric substations and offices with fiber, we will create a smart grid with more automation capabilities to better serve our members. Smart grid capabilities – the standard for optimum electric infrastructure – allows our devices to communicate with each other and delivers benefits such as improved power outage response times, better load balancing, more efficient electricity delivery and others.

How will I benefit from fiber internet access?

Our primary reason for partnering with Conexon Connect is to offer high-speed internet services is to meet the needs of members like you. You will no longer have to rely on DSL, fixed

wireless or satellite internet to stay connected online. You will be able to stream high-definition media smoothly and quickly, have the data capacity to download and upload data such as files, photos and videos at super-fast speeds, and have access to the latest technological advancements and applications. Our FTTH world-class service will be reliable, affordable and backed by your local, trusted co-op.

You will be able to run multiple devices – such as cell phones, computers and laptops – simultaneously in your home or business without decreased download and upload speeds. The table below gives you a speed comparison between what you may have now and what's possible with FTTH.

*	**Typical dsl/wireless/satellite (3Mbps)**	**Standard internet speed (25 Mbps)**	**High-Speed internet (100 Mbps)**	**High-speed internet (200 Mbps)**	**Ultrafast INTERNET Up to 1000 Mbps (Gigabit)**
Download 100 photos	14.7 minutes	1.8 minutes	26.4 seconds	13.2 seconds	2.8 *seconds*
Download HD movie	4.8 hours	34.4 minutes	8.6 minutes	4.3 minutes	54.3 *seconds*
Download 50 Songs	8.2 minutes	1 minute	14.7 seconds	7.3 seconds	1.5 *seconds*
Download 50GB Game	39.8 hours	4.8 hours	1.2 hours	35.8 minutes	7.5 *minutes*

** Download speeds calculated using the following averages:*
Phone Photo – 3.15 MB
HD movie – 6 GB
Song – 3.5 MB
Game – 50 GB