

# FIBER TO THE HOME (FTTH)



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## FREQUENTLY ASKED QUESTIONS KIT CARSON ELECTRIC CO-OP FIBER INITIATIVE

**What is KCEC's Fiber-To-The Home?** Kit Carson Electric's Fiber-to-the-home (FTTH) is the delivery of a communications signal over optical fiber from the KCEC's switching equipment all the way to your home or business, thereby replacing existing copper infrastructure such as telephone wires and coaxial cable. Fiber-to-the-home is a relatively new and fast-growing growing method of providing vastly higher bandwidth to consumers, and thereby enabling more robust video, internet and voice services. Kit Carson Electric Cooperative owns and operates one of the most advanced and robust FTTH networks in the State of NM.

**Why is this important?** Many remote and sparsely populated communities in Taos, Colfax and Rio Arriba counties remain underserved and/ or unserved by telecommunication infrastructure and do not have access to advanced broadband services at affordable rates. KCEC's Fiber Initiative will change this. Fiber optic technology will allow KCEC members and Northern New Mexicans to meet the opportunities of the 21st century. By providing bandwidth from, 3 Megabits to 1 Gigabit to homes and larger user sites, fiber optics will provide a one-time, long-term solution that will not require upgrading or replacement and will immediately support advanced applications.

**Why do we need all this bandwidth in Taos?** If all you want to do is surf web pages, download a few songs, send and receive some photographs, or watch streaming video at current picture quality levels, then the bandwidth provided by today's cable modems and DSL lines is probably good enough. But the world is moving toward vastly higher bandwidth applications. Companies like Netflix, Amazon and Wal-Mart are preparing to offer feature length movies for download. More people are looking to upload their own home movies into emails or web pages. Consumer electronics companies are coming out with devices that connect televisions to the Internet. High-definition video is fast becoming the state-of-the-art – and one high definition movie

**Why is KCEC involved in Fiber-To-The-Home?**

While the vastly higher bandwidth and transmission speeds offered by fiber-to-the-home is certainly enabling video providers to offer a wider range of products and services, users of other applications that will benefit as well. Gamers will get access to more powerful multi-player applications. Avenues have now opened for distance learning and telemedicine. Opportunities for telecommuting and working from home will increase. And, just as Internet applications and solutions have grown more sophisticated with the expansion of available bandwidth thus far, you can be sure that this leap into next-generation broadband will inspire further innovations that we cannot even imagine at this point, bringing greater economic development opportunities to Northern NM, and specifically KCEC members.

**Who will benefit from it?** The Fiber Initiative will support residents, business, communities and anchor institutions. The network will reach 29 communities comprising roughly 20,500 households, 3,600 businesses, and 183 critical community institutions as well as two Native American pueblos (Taos and Picuris) within a 2,951 square mile area in Taos, Colfax and Rio Arriba counties in Northern New Mexico.

**How will this impact energy efficiency?** The network has been built along existing electric distribution right-of-way, to enable Smart Grid/Green Grid technologies. Utilizing existing right-of-way reduces the adverse environmental impact and overall the new connectivity of the services will help reduce vehicle use and other heavy energy-use activities. Smart Grid/Green Grid will ultimately help KCEC members better manage their electric usage and give better insight as to how electricity is consumed and where cost savings to members may be realized.

**How can I learn more?**

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