

RURAL BROADBAND

CENTRAL VIRGINIA ELECTRIC COOPERATIVE



Central Virginia Electric Cooperative

The background features a dark, almost black, gradient. In the lower half, there is a glowing, abstract pattern of intersecting lines forming a grid or mesh. The lines are primarily blue and purple, with a bright blue light source or focal point in the lower right quadrant, creating a sense of depth and digital connectivity.

Who is CVEC?

- Rural Electric Cooperative
 - Private, independent organization
 - As a monopoly, provide a public utility – electricity
 - Cooperative business model
 - Not-for-profit
 - Governed by a member-elected board of directors
- Formed in 1937
 - Farmers and business owners in rural central Virginia
 - Built infrastructure that open market would not build
- Consistently competitive
 - Throughout history near or below average cost in state
 - High reliability – 99.999% service availability annually
 - Traditionally very high member satisfaction ratings



What size company is CVEC?

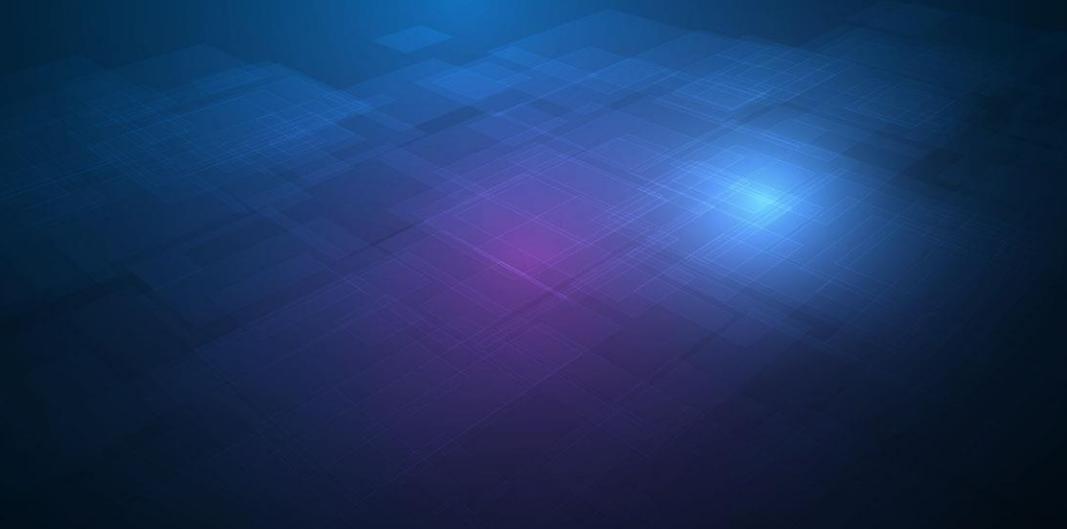
- Average electric cooperative in state
 - 37,000 accounts
 - Touch parts of 14 counties
 - 4,600 miles of overhead and underground lines
 - 90% residential accounts
- Mid-size company financially
 - \$90 million in revenue
 - \$3 million to \$5 million in margins annually
- Impact on local economy
 - 107 full time employees – average wage \$35/hour
 - Another 100 local contract employees
 - Active in communities we serve



Who is Firefly Fiber BroadbandSM?

- Wholly owned subsidiary of CVEC
 - Governed by a Board of Directors
 - Headquartered in Palmyra, VA
 - 16 Employees
 - Already a successful business in Central Virginia, recently connected its 2,800th customer
- Internet Service Provider
 - Unlike CVEC, Firefly will serve both inside and outside of CVEC service territory
 - Leases fiber from CVEC, builds and owns fiber outside CVEC territory

Rural Broadband Project



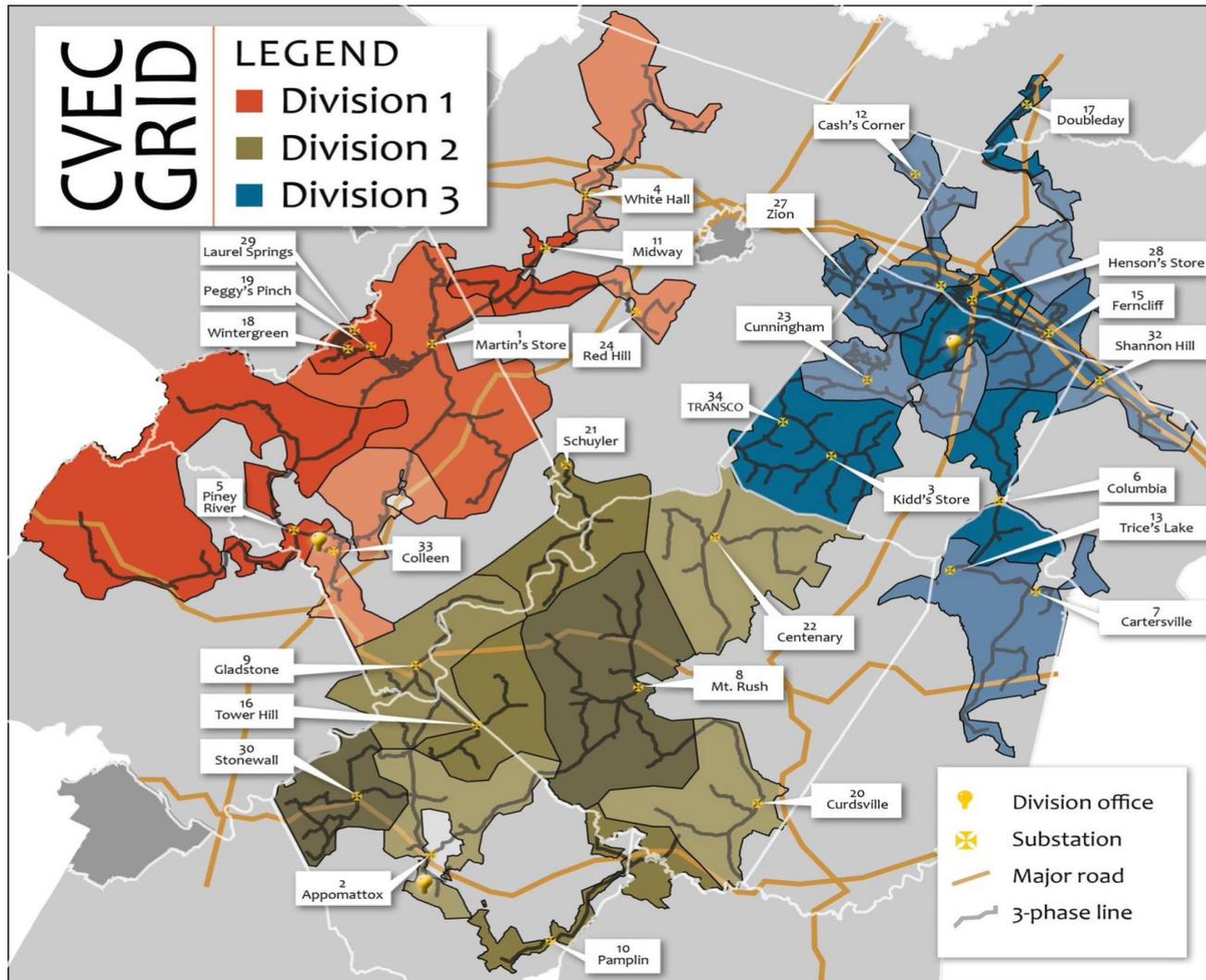
Rural Broadband Project

- CVEC needs high speed communications across its grid
 - Requires all 33 wholesale delivery points be connected
 - Downline equipment connected
 - Eventually all the way to the meter
 - Smart grid applications, higher reliability, and lower costs
- Leverage the CVEC fiber to provide members broadband
- Make fiber access available to other businesses and organizations who need high speed communications in the most rural areas

Rural Broadband Project

- 5-year project, but working to cut that to 4 years
- All 37,000 accounts will have option for service
 - Fiber will be extended to home or business when member signs up
- 3,500 miles of line
 - From 600 to 800 miles per year installed, plus drops
- \$120 million investment
 - Spent \$30 million last year and another \$35 million this year

CVEC Distribution System



Rural Broadband Project

- CVEC will install and own fiber
 - Overhead on poles
 - Underground where other facilities are underground
- Firefly will be Internet Service Provider (ISP)
- Required by Virginia code
 - Will lease fiber from CVEC and sell services retail
- Design and construction will be contracted
 - 15 to 20 miles installed per week
 - 100 to 150 new accounts added per week

Services and Pricing

Firefly believes "accessible broadband" includes competitive pricing

- Two options for Broadband
 - 100 megabits per second (mbps) service - \$49.99/month
 - 1 gigabit per second (gbps) - \$79.99/month
 - Symmetrical up/down - unlimited data
- VOIP Telephone Service
 - Unlimited local and long distance in Cont. U.S. - \$34.99/month
 - Unlimited local and long distance bundled w/internet - \$29.99/month
- Installation fee
 - \$100 for new installation
 - Waived if sign up as we build in the area

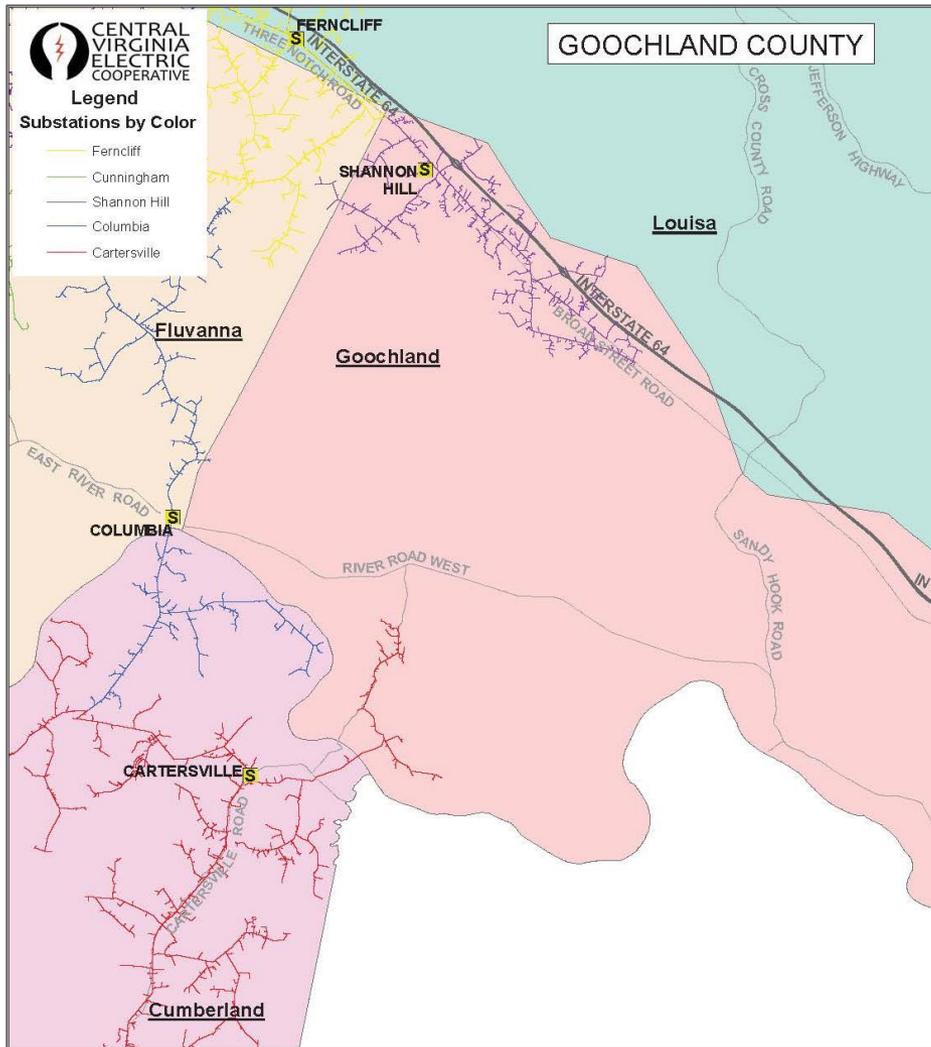
What Does This Mean for Goochland?

- CVEC and Firefly will be building on 3 different fronts in Goochland
 1. CVEC's Distribution Grid
 - All CVEC members will be served within the 5 year timeline
 2. CAF/ RDOF Funding
 - Connect America Fund is now the Rural Digital Opportunity Fund
 3. USDA ReConnect Program

For areas in Goochland that are outside of the CVEC service territory, Firefly will own and operate all infrastructure.

If one source of funding is not realized, others will be sought, and the process will continue. State funding, other sources of federal funding, and private equity funding will be considered. Firefly is committed to solving the rural digital divide.

CVEC Electric Distribution System



Goochland County

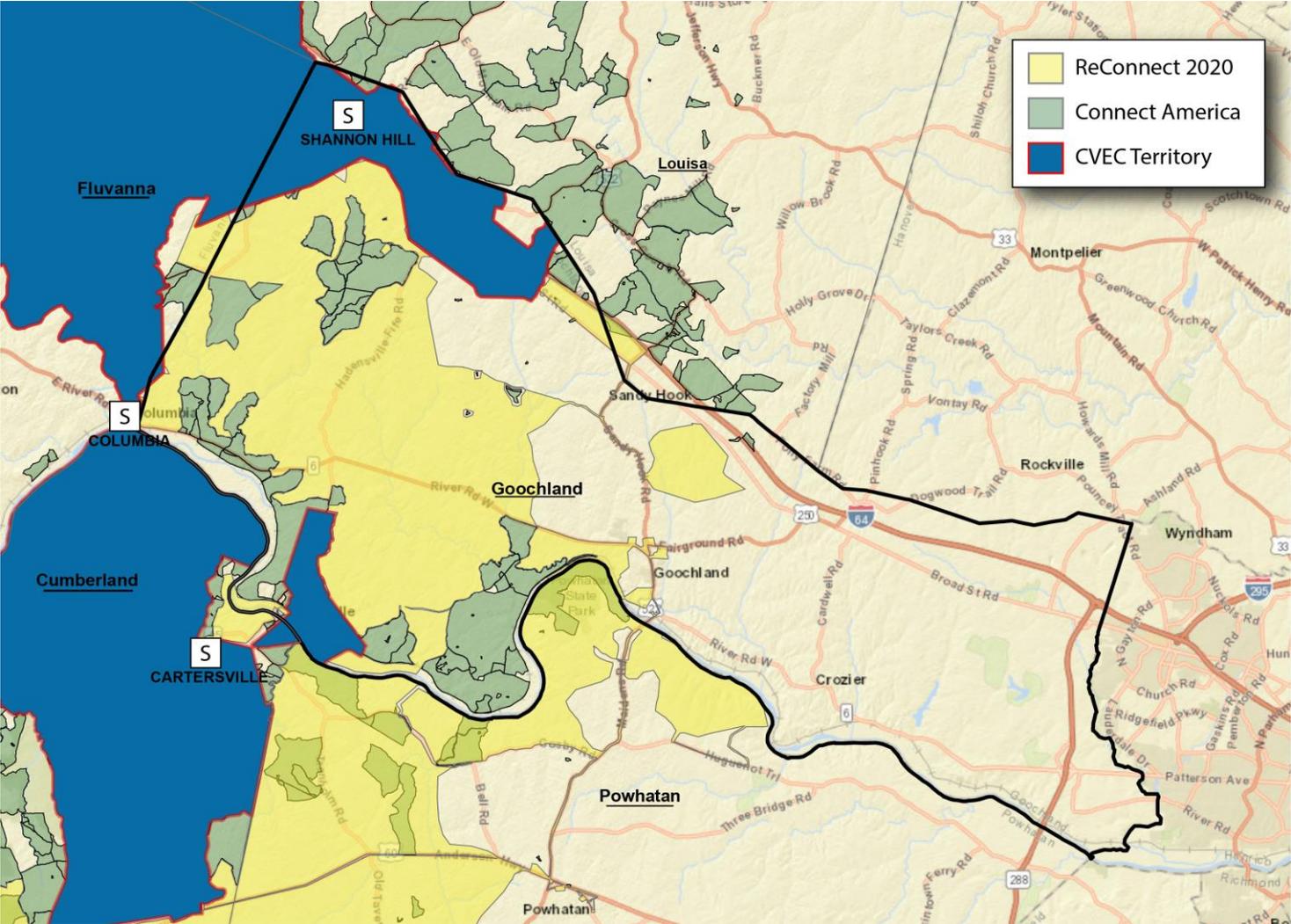
- 804 electric accounts
- \$2.5 million investment
- Red lines represent Cartersville substation build planned for 2020

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Footprint of Fiber Coverage in Goochland



Totals and Timeline

- CVEC System-
 - 804 electric accounts
 - \$2.8 million investment
 - Completion – goal is now 2022
- Off CVEC system
 - 1,887 homes and businesses
 - \$12 million investment
 - Completion – 2023 contingent upon ReConnect 2020 award
 - Contingencies are being developed

Sources of Funding

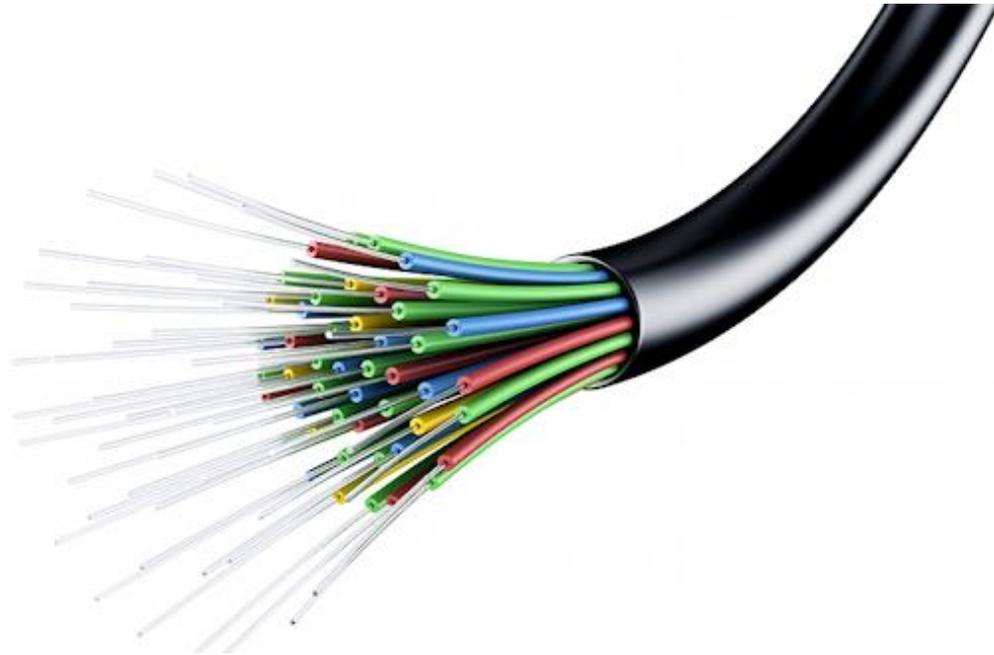
- Connect America Fund (CAF)
 - \$1.2 million (\$10k per month for 10 years)
 - 561 locations (includes 221 on CVEC system)
- USDA RUS ReConnect 2019
 - \$1.9 million (50% loan and 50% grant)
 - 583 locations
- USDA RUS ReConnect 2020
 - \$7.2 million (Grant for 75% of \$9.6 million build)
 - 1,547 locations (0 on CVEC system)
- Other Sources
 - Goochland County Incentive
 - Loans

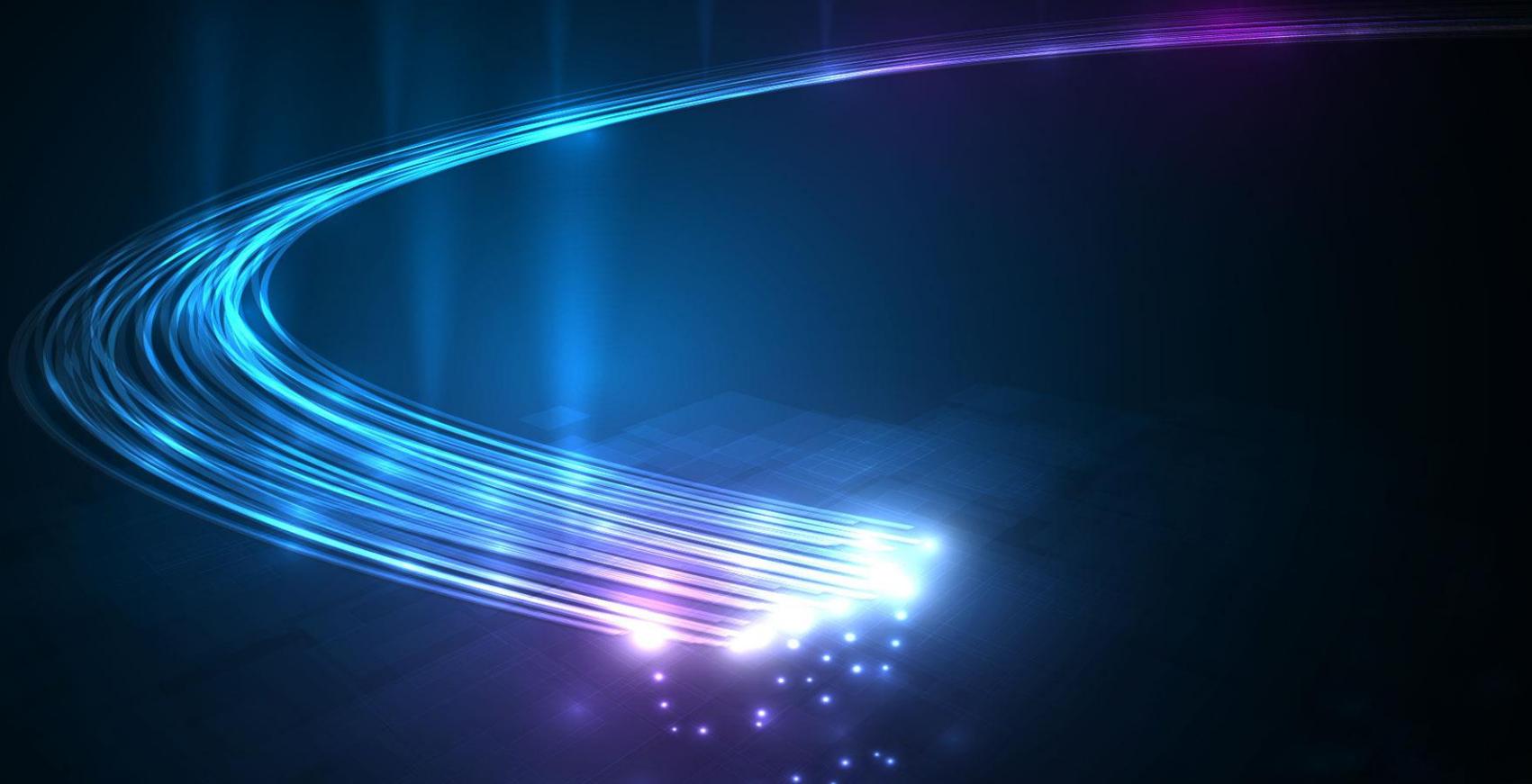


Opportunities to Partner with County

- Location of Fiber Hut
- EDA Loan opportunity with Firefly
- Fiber built into Midpoint business park along I-64

Questions?





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