

RURAL BROADBAND INSIGHTS FOR CLOSING THE DIGITAL DIVIDE



WITH PARTNER JONATHAN CHAMBERS

Co-ops Connect FYI

By Jonathan Chambers • Jul 14, 2023

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Know Your Numbers



While a few states are still running American Rescue Plan Act (ARPA) rural broadband programs, most are preparing for BEAD.

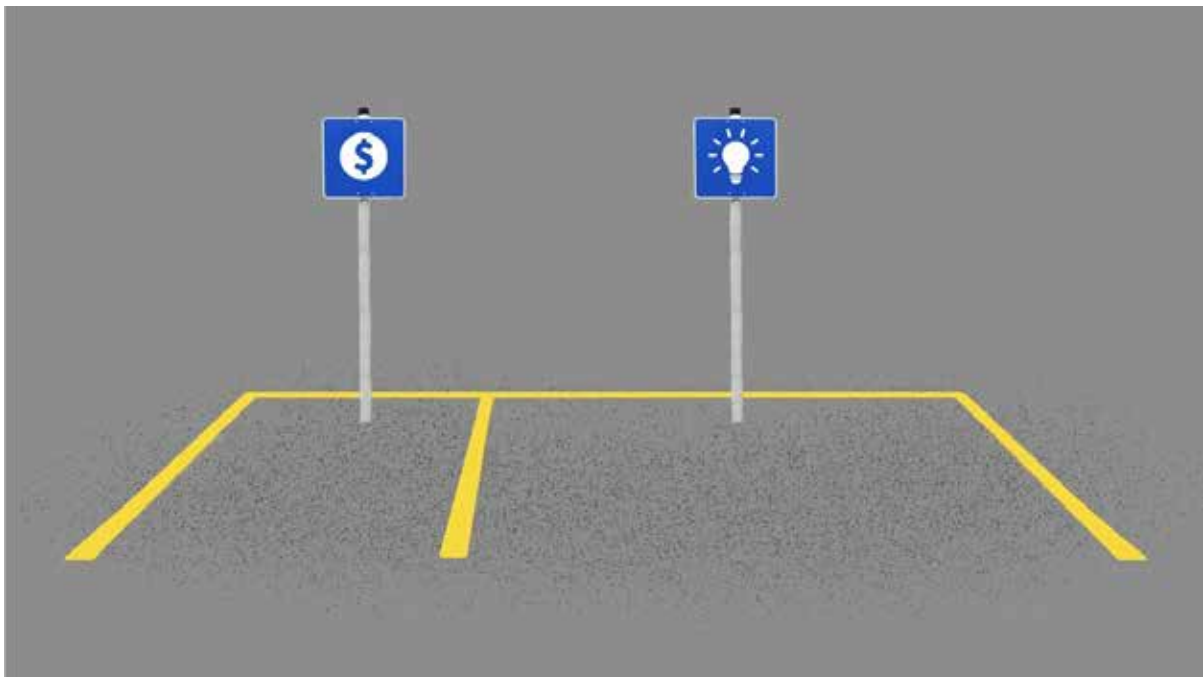
What does the BEAD process look like?

1. Over the next 6 months, states will prepare initial broadband plans and apply to NTIA for approval of funding up to the amount recently allocated to all the states and U.S. territories. ([See the BEAD allocations here.](#))
2. After a state's initial plan is approved by NTIA, each state will post its own notice of funding opportunity.
3. When states' funding opportunities are posted, companies will be able to apply to fund network construction to unserved and underserved locations. Those opportunities will not begin until 2024.

What to do until then?

Know your numbers.

Randy Klindt and the Foundation of Co-Mo Connect



When I first joined Randy at Conexon in early 2016, he had performed a few feasibility studies. The studies were based on the model he had created and the experience he had gained at Missouri's Co-Mo Electric Cooperative **building the nation's first complete electric co-op fiber business:**

- A 4,000-mile, co-op-owned fiber network
- Operated by the co-op's subsidiary, Co-Mo Connect
- Built to 100% of co-op members in 5 years
- Profitable in its fifth year without any government grants, loans, or subsidies

After forming Conexon, Randy's pitch to other co-ops was straightforward: Conduct a feasibility study based on the Co-Mo Connect business where Randy had been General Manager.

The Co-Mo Connect project had been Randy's brainchild. With direction from the Co-Mo Board, a group with great foresight, the fiber business was founded on old co-op principles.

The Co-Mo formula:

1) The network was to be of the best quality in the country.

- Co-Mo Connect launched affordable 1 Gbps symmetrical service just months after Google Fiber launched 1 Gbps service in Kansas City.

2) 100% of co-op members were to have access to the fiber service – the same levels of service at the same prices.

- Neither the Board nor Randy wanted to offer one type of service to denser areas and a lesser service, such as wireless, to more sparsely populated areas.

3) Electric-only members would not subsidize the fiber service, even though the fiber would be owned by the co-op and the ISP would be operated by a wholly-owned subsidiary.

- Randy created a business structure whereby the co-op was made whole by the subsidiary to prevent any cross-subsidization.
- That structure was approved by the Co-Mo Board, and later by scores of other co-ops across the country.
- That structure has also been reviewed and approved by state and federal regulators.

4) The pilot would be started with a 25% pre-subscription rate and \$100 deposits.

- Randy tells the story of community meetings where neighbors would sign up for neighbors and of one bank manager who agreed to pay the deposits for everyone in the room. He likens it to the electric co-op movement of the 1930s.

5) Initially, Randy was to be a one-man show.

- Co-ops don't like hiring people temporarily or hiring and letting them go, so Randy was chief cook and bottle washer.
- Randy Klindt, learning to do everything himself, may have been the best thing ever to happen to the fiber industry.
- Whether it was business modeling, design, architecture, materials, electronics, billing software, marketing, pricing – Randy's education led to innovation, which became the basis for most electric co-op rural fiber projects in the nation today.
- Eventually, Randy was permitted to hire. His first hire was Andy Burger, who later became Randy's replacement as Co-Mo's General Manager and is now Conexon's Senior Vice President of Operations.

The Conexon Blueprint



At Conexon, we adopted our own core principles:

- 1) Quality:** We offer world-class, affordable, multi-gigabit residential and business service in rural America.
- 2) Equality:** 100% of co-op members where we offer service have access to the same services at the same prices.
- 3) Time is of the essence:** We pace construction at 1,000 miles a year, and larger projects even faster.
 - It is no comfort to tell members that after a decade of waiting for broadband, they have years and years more to wait.
- 4) Co-op members first:** While there is always opportunity to build off-system to more densely populated towns, we build to co-op members first.
 - The electric co-op is made whole for its investment first. The electric business does not subsidize the fiber business.

Where does Conexon start? With a business plan modeled on the co-op's electric distribution network.

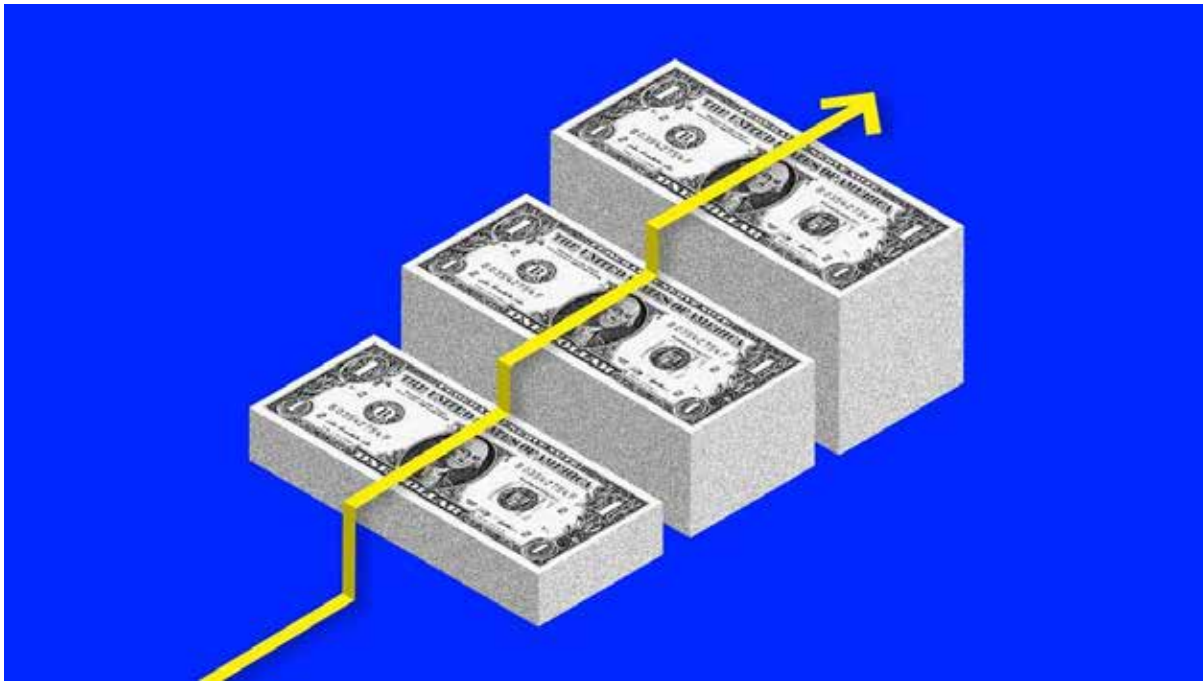
Any monkey with a spreadsheet can put a business plan together.

Broadband is a simple business to model: construction costs, cost of capital, maintenance and operating costs, take rates, and subsidies. The main difference between one study and another is the quality of the assumptions.

Our feasibility studies are still based on Randy's initial methodology, and as we've built more networks, we've gained more accuracy in our projections.

- At our current construction pace of **1,000 miles a week** in projects across the nation, **we know cost.**
- By assisting **scores of co-op fiber operations** across the country, as well as running our own ISP, **we know revenue.**
- By participating in every competitive federal subsidy program and state grant program, **we know government grants and subsidies.**

By the Numbers



The Conexon difference:

1) Design: We design an all-fiber, smart-grid network to follow the electric distribution network, providing connectivity to every device for smart-grid applications and fiber availability to every member for broadband.

- The software platform we created converts an electric co-op's data into a fiber, smart-grid design, with sufficient capacity for electric use, broadband, and future growth. **We know design.**

2) Make-ready: Over the years, we have both managed make-ready and added our own make-ready engineering capability. While every electric distribution system is different, at 1,000 miles of make-ready engineering and make-ready construction a week, **we know make-ready cost.**

3) Materials: We purchase and arrange for the purchase of 1,000 miles of fiber, strand, and other materials each week. **We know material prices.**

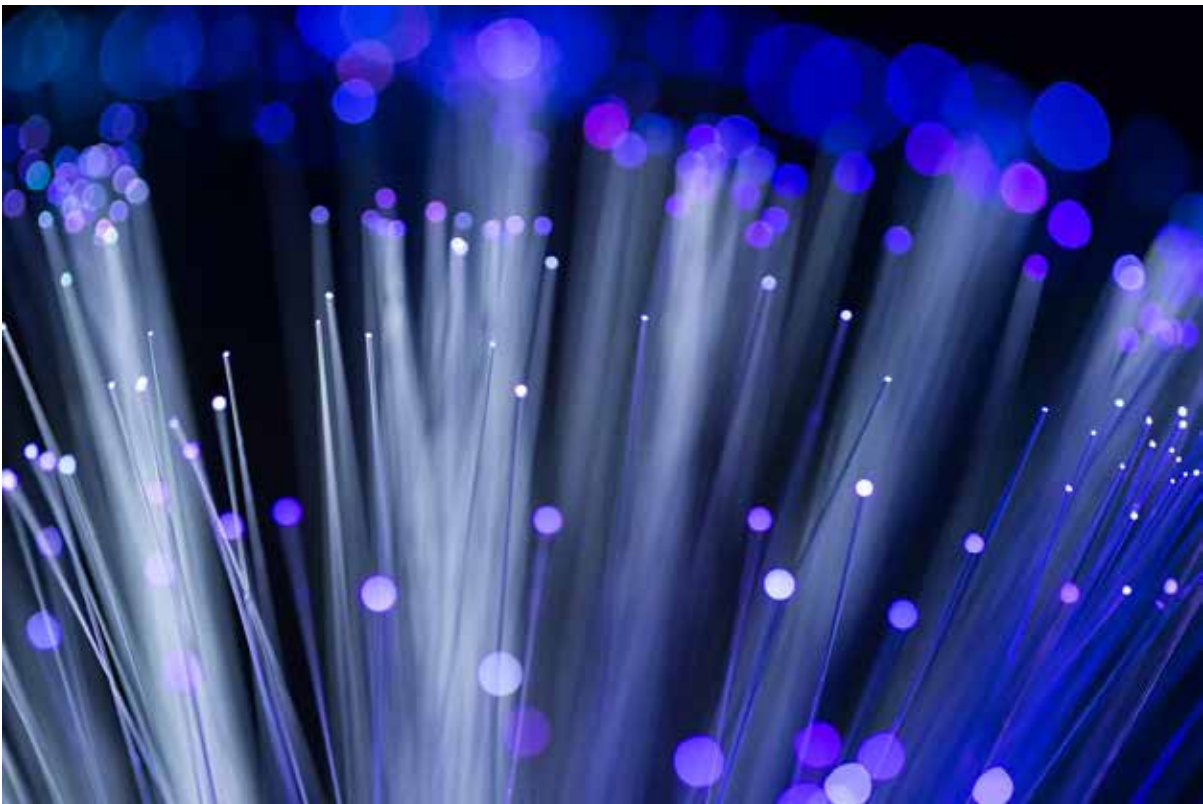
4) Labor: We run RFPs frequently for underground and aerial labor. We reconcile invoices for 1,000 miles of fiber construction a week. **We know labor cost.**

5) Technology: We have deployed GPON and are currently deploying XGS-PON networks. While at OzarksGo, Randy ran a pilot of GPON, XGS-PON and NG-PON2 over the same fiber. **We know electronics.**

6) Competition: With our co-op fiber clients, we have competed against every major telephone, cable, wireless, and satellite company in the nation. **We know competition and we know revenue.**

7) Funding: We have assisted our co-op fiber clients and applied ourselves in every major broadband spending program (including RBE, CAF II, ReConnect, CARES, RDOF, and ARPA). We are preparing for BEAD. **We know the alphabet soup of government programs.**

The Big Picture



According to the FCC's latest version of the National Broadband Map, the one used by NTIA for the BEAD allocation:

Over 3 million electric co-op households are unserved by broadband. Another 2 million are underserved.

- For 400 electric co-ops, over one-quarter of members are unserved or underserved by broadband.
- For 300 electric co-ops, over one-third of the members are unserved or underserved.
- For 150 electric co-ops, over one-half of the members are unserved or underserved.
- For over 50 electric co-ops, over three-quarters of the members are unserved or underserved.
- There are 764 electric cooperatives with unserved and underserved members in areas eligible for BEAD funding.

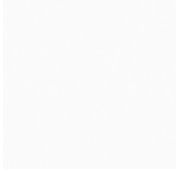
My simple advice for these co-ops:

1. Have a study done.
2. Better yet, have two or three studies done to compare.
3. Make one of them ours.

Co-ops Connect FYI is taking a short summer hiatus. Our next edition will publish August 4.

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