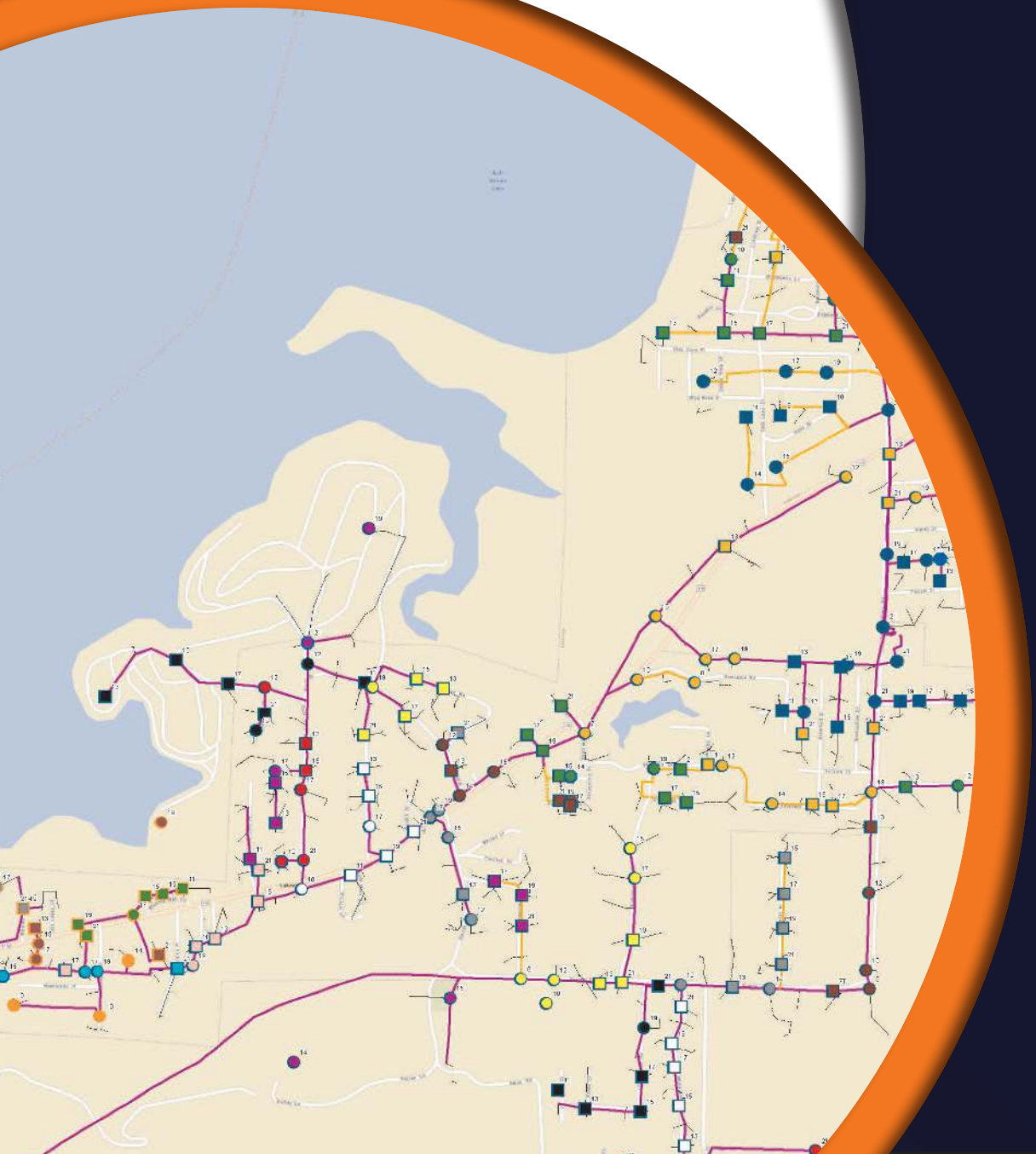
Rural Fiber Distribution Design

conexon

Connecting Rural America

Technology Designed for Cooperatives by Cooperative Experts



conexon

"Conexon basically designed our entire system in three days. This allows us to now, very quickly, deploy wherever we want because we've eliminated that step. The benefits of Conexon design, saving us time, energy and effort, make us go so much faster now."
-David Goodspeed, President of Oklahoma Electric Cooperative (OEC)Fiber

The Challenge

The challenge of designing a fiber network can be daunting for even the most progressive electric cooperative. From completing ride-outs, determining infrastructure viability, and manually mapping fiber routes to ultimately designing a fiber network and planning for high adoption, the process is often slow, inefficient and expensive.

The Solution

Conexon offers the solution to that challenge with its Rural Fiber Distribution Design Platform. This unmatched and completely customizable technology enables Conexon to design your fiber network faster, more efficiently and more accurately. It positions your co-op to turn up today's fiber customers quickly and to more easily accommodate future growth.

Design your network in minutes!

Conexon has the fastest, most efficient platform that revolutionizes fiber design in three specific ways:

- It creates design map data in minutes rather than the normal days or weeks it takes using traditional manual design.
- It uses a custom fiber design algorithm that eliminates the human error intrinsic in manual design and ensures the most optimal use of cable and equipment through maximized light calculations on any electric network.
- It designs an entire electrical distribution line on a single run, which allows the co-ops to build out faster and consequently experience a higher uptake.

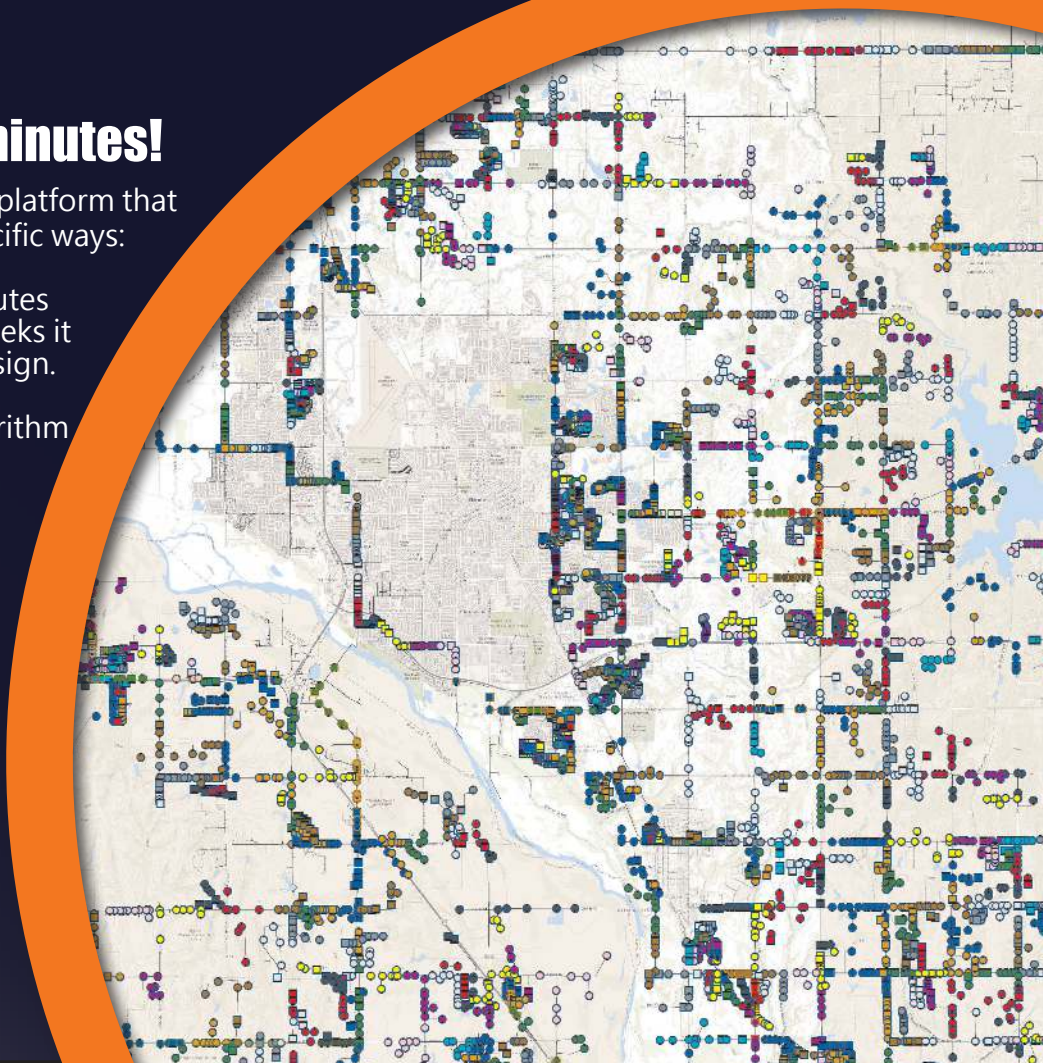


Figure 1. (*Right Diagram*) OEC FTTH Design, 2018

Conexon's Distribution Design technology is fully customizable to meet our clients' needs for today and the future.

"Conexon has been involved in all of the projects that we could find that had successfully been built in a compressed schedule. They had experience of building at a rate of 20 miles per week over five years. That's a very fast build. It requires so many working parts to come together, from the fiber design to getting the make-ready design and construction work done. Having someone who's been through it certainly gives you comfort." **-Gary Wood, President & CEO - Central Virginia Electric Cooperative (CVEC)**

Platform Advantages

Conexon's design platform dramatically shifts the time to market for ride-out changes, make-ready and construction by automating several steps of manual work.

- **Saves You Money:** *Our custom software evaluates the electric network for the least-cost path of strung fiber.*
- **Optimizes the Network:** *Our technology evaluates every possible combination of fiber in a given substation/feeder network, and optimizes light calculations based on our long-standing design and construction standards.*
- **Customizable:** *Our design approach is entirely customizable taking into account parameters your team prefers to use for network design.*

The Conexon Difference

(Manual Design vs Platform Design)

The software retains 100 percent of all automatic decisions that the algorithm makes during the design process and stores them in a database.

- This approach is more accurate than a manual design process where the decision to allocate a piece of fiber or equipment at a given location is prone to human error. It is also different from other proprietary software where data is not fully stored.
- Because our software is so fast, we have the ability to run several scenarios in a matter of hours to determine what might be the best outcome for our clients. With other approaches, this step normally takes months to accomplish, with too many versions for a team to manage.
- We build in extra capacity and tune the model for growth, which in turn allows you to be prepared for growth such as new subdivisions or businesses.

Figure 2. *(Right Diagram)* CVEC FTTH Design, 2018

conexon

Connecting Rural America

Conexon works with Rural Electric Membership Cooperatives to bring fiber-to-the-home to rural communities. We analyze economic feasibility, secure financing, design networks, manage construction, train employees, optimize business performance and determine optimal partnerships.

Our team believes the electric cooperative approach to fiber-to-the-home is unlike that of a telephone company or a cable company. There is a method for building to and serving rural communities that is unique to rural electric cooperatives. We understand the steps a co-op must go through to deploy broadband because we've actually done it ourselves. Our team has both built and operated fiber networks for electric co-ops and connected more members across the country than any other. Our commitment is to be with you from a project's conception all the way through to its long-term sustainability.

"Since we didn't have the (broadband) expertise, we needed someone we were comfortable with that we didn't have to teach the co-op business model to. Conexon is made up of co-op people, so they understand how we need to do things. In two months, our network was designed and we were building. To me that's really fast."
-**Tim Smith**, General Manager, **East Central Oklahoma Electric Cooperative**

"Our software ensures the most optimal fiber design every time. It is a data-driven approach, making our clients service offering better. The result is our clients get their customers connected faster."
-Mike Byrne, Conexon-VP of Information Systems

CO-OP PROJECTS UNDERWAY

more than	more than	more than	more than
90	**150,000**	**200,000,000**	**2,000,000,000**
co-ops	miles of fiber	government grant dollars invested	dollars invested in rural America

WWW.CONEXON.US
202-798-3884