

MiEnergy Cooperative

BRIAN KRAMBEER
PRESIDENT/CEO



MiEnergy Cooperative

Headquartered in beautiful Rushford, MN



The Basics

Merged January 1, 2017

76 total employees

- 33 lineworkers

43 substations

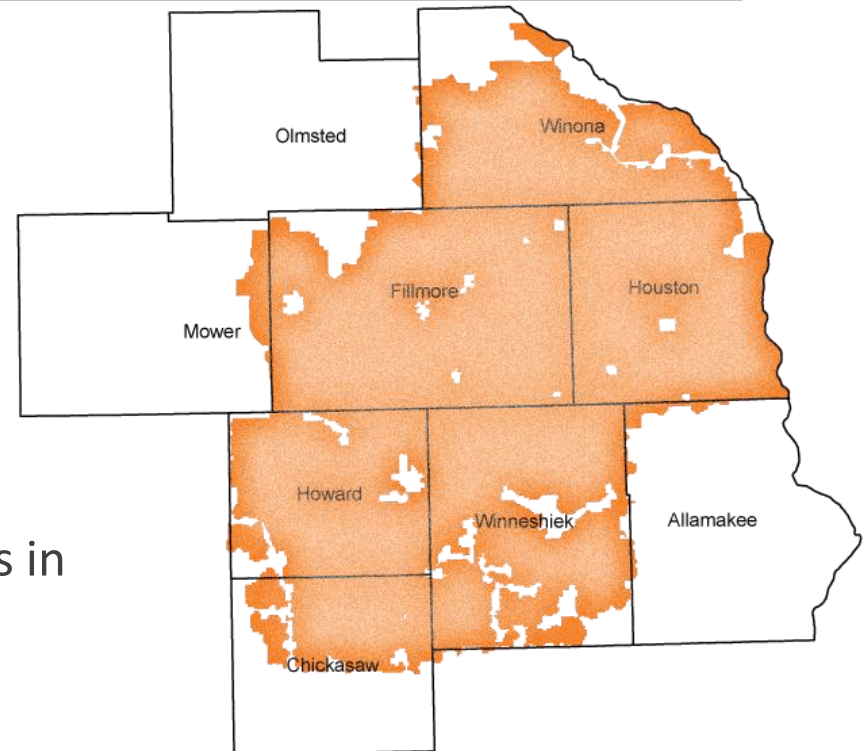
5,500 miles of line

22,900 meters/18,800 members

Offices in Rushford & Cresco; Outposts in Caledonia, Harmony & Spring Valley

11 wholesale cities

Average 4 members per mile of distribution line



Electric Industry Changes

Advanced Metering Infrastructure (AMI)

- Hourly meter data communicated back to our offices
- Special time-of-use energy rate options – Real time

Outage Management System (OMS)

- Instant notification from the AMI of outages
- Lineman operate with iPads/OMS

Supervisory Control & Data Acquisition (SCADA)

- Computer control system to monitor system data
- Electronic system device operation (breakers/regulators)



Electric Industry Changes

Energy Management

- System operation to control home appliance for 'peak shaving'
- Commercial & industrial energy management

GIS Mapping Technology

- 5,500 miles of electric distribution line and all cooperative infrastructure - GPS point.

Mobile Workforce Management

- Automatic Vehicle Locating (AVL)



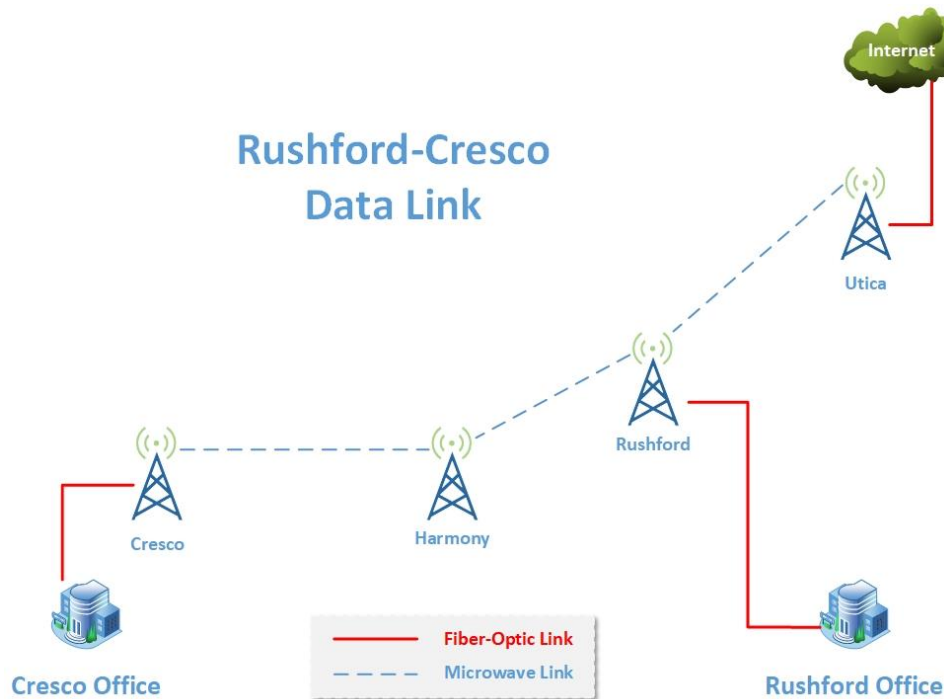
Electric Industry Changes

Future Continues to Evolve

- Electric vehicles and charging networks
- Smart home technology
- Distributed generation/solar
 - (650 members systems)
- Residential battery storage
 - National pilot program

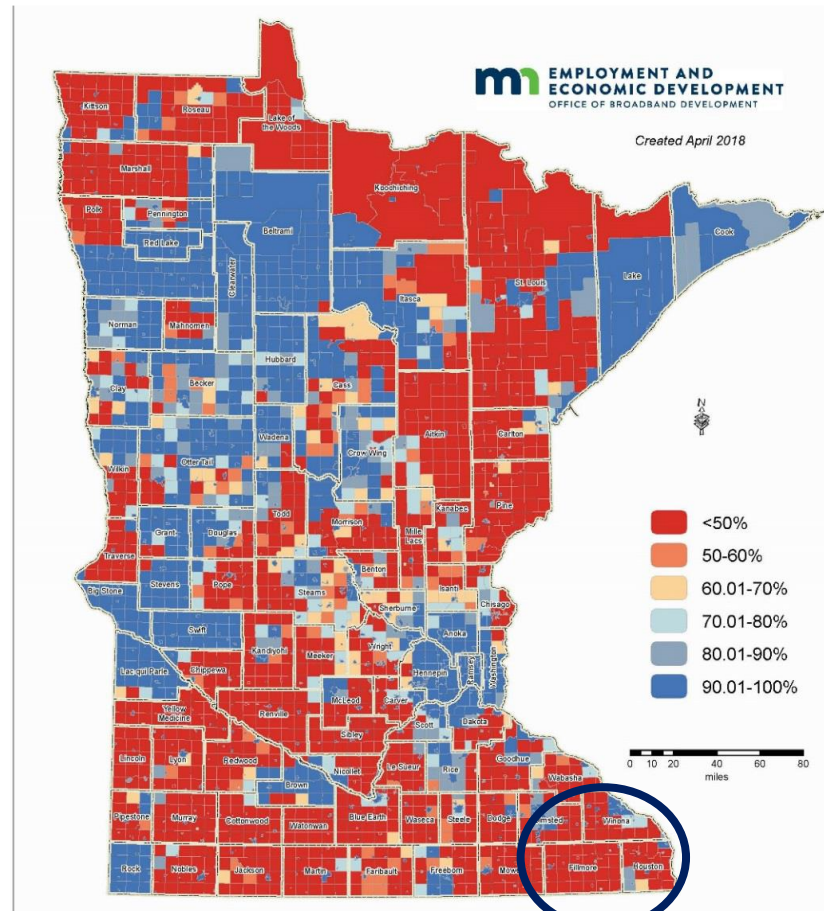


Internet Connectivity/Network Design



- Offices were communicating via the high-speed microwave link and fiber backbone
- Utilized cellular VPN connections
 - Expensive & data limitations

Broadband

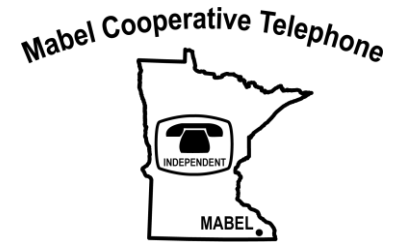




About us

Partnerships

- Spring Grove Communications local telephone cooperative.
- Mabel Cooperative Telephone Company local telephone cooperative.
- Spring Grove Communications, Mabel Cooperative Telephone and MiEnergy own Harmony Telephone Company.
- Natural partnership with MiEnergy Cooperative.



Progressive

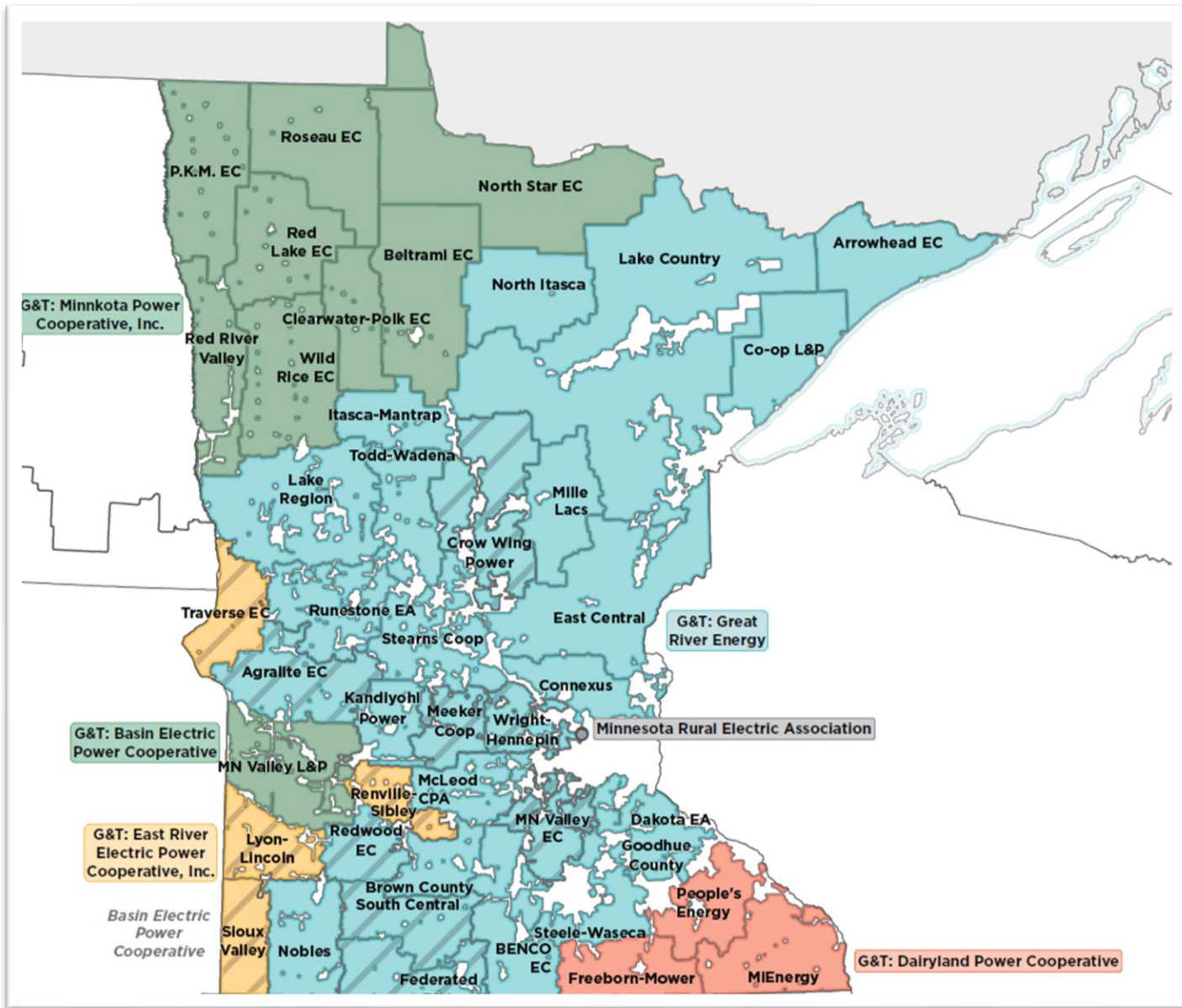


\$5.4 Million ReConnect Award (MN)

\$9.7 Million ReConnect 2 Award (IA)

\$715,000 IA CARES Grant

\$1.2 Million MN Border-to-Border Broadband Grant





44 rural electric distribution cooperatives in Minnesota

6 generation & transmission cooperatives in Minnesota

- Several already have existing fiber in overhead static wire
- One Minnesota G&T Cooperative has 500 miles of overhead fiber.

Cyber security protection

- Ownership of the fiber is critical by the electric cooperative
- Opportunity to lease fiber strands to a retail provider?

BUT Cooperatives cannot lease the fiber to a 3rd party unless it has a new easement permitting retail fiber usage in the cooperative's existing ROW easement.



Existing Electric Cooperative Easements

- Electric Cooperative's have been in business over 80 years
- Many of our easements date back to the 1940's – 1950's and are provisional easements
- Nonresident landowners – very difficult to reach
- New easement adds considerable time to the broadband buildout

MiBroadband has been operational since 2018

- **NO member has opposed broadband build out and are grateful to have access to quality broadband service.**
- All of MI Broadband's fiber to the home is buried underground.

Thank You

