



MIDWEST ENERGY & COMMUNICATIONS

# The Importance of E-Connectivity

**Robert L. Hance**

*President & CEO*

*Midwest Energy & Communications*



# Introducing Midwest Energy & Communications

# Our Vision

A decorative graphic on the right side of the slide consists of four overlapping rectangles. The top rectangle is white, followed by a yellow one, then another white one, and finally a yellow one at the bottom. They are set against a solid light green background.

Vibrant, Relevant  
and Sustainable  
Rural Communities

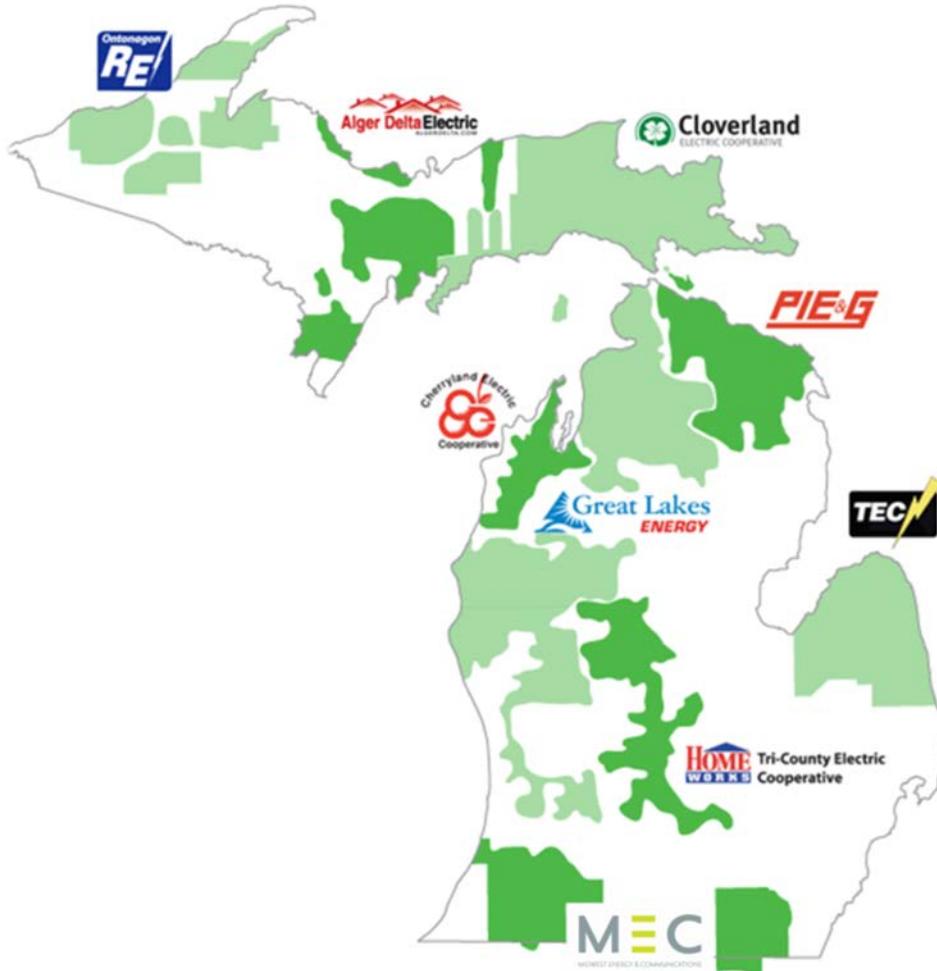


# Our Mission



Deliver  
First-in-Class  
Innovations and  
Solutions Where  
Others Won't.

# Our First-In-Class Innovations & Solutions MEC



- **Electric Distribution:** We are a member-owned cooperative serving about 36,000 members in 11 counties in southern Michigan and northern Indiana and Ohio.
- **Propane:** In 1998 we added propane and today provide service to 6,400 business and residential customers in 15 counties in Indiana and Michigan.
- **Telecommunications:** Today we're investing in a communications system across our grid for member and utility benefit, and leveraging that to offer fiber internet, VoIP and local video. We are in year 4 of a 5-year deployment and serving over 6,200 business and residential customers in southwest Michigan.

## Operating Statistics

- Consolidated Assets = \$234M
- Consolidated Revenue = \$88M
- Total Employees = 127



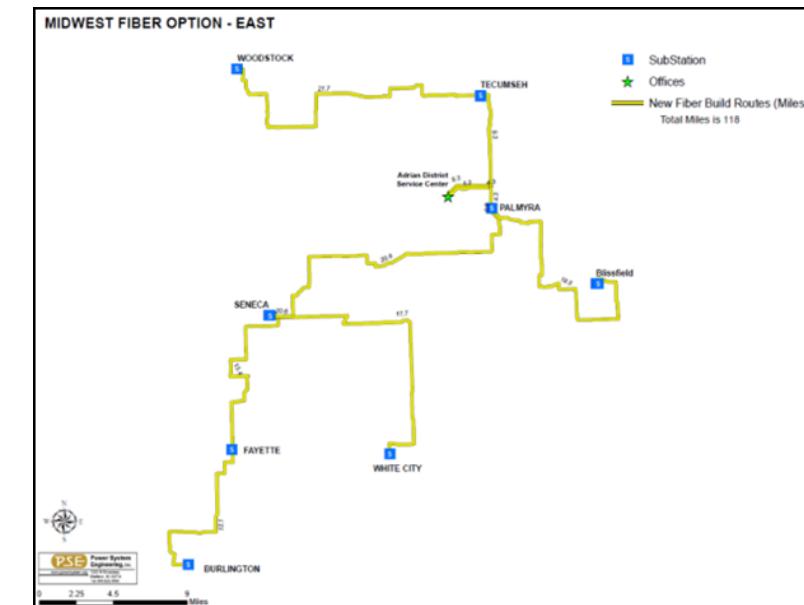
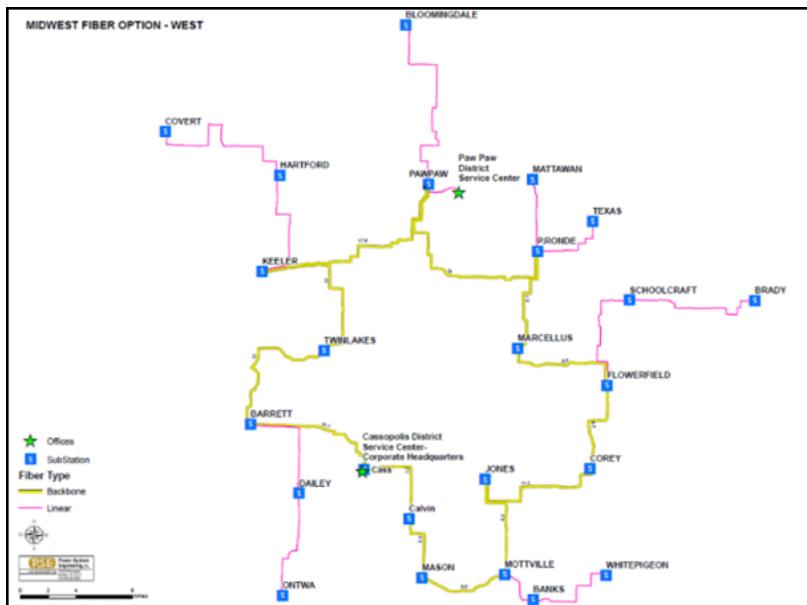
*Finding Solutions to  
Expanding Rural Broadband:*

Look to Rural Electric  
Cooperatives

# Success Through Failure



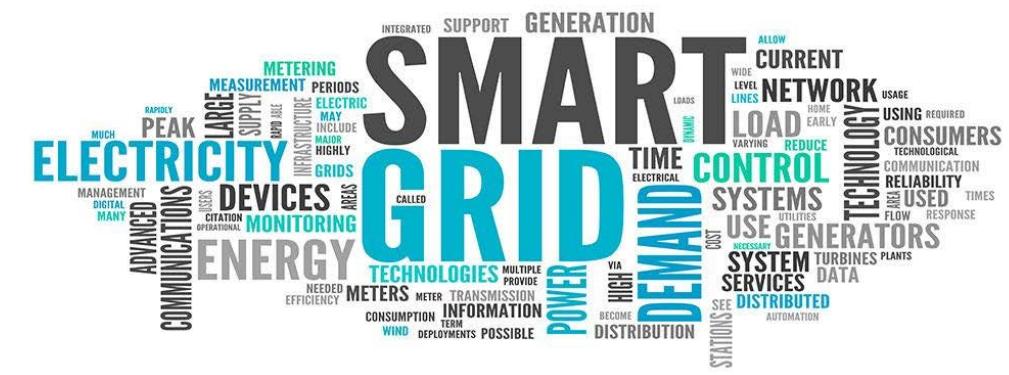
- Dial-Up
  - Satellite
  - Broadband Over Powerlines
  - Fiber Optic



# Smart(er) Grid Opportunity

M E C

- Distribution Automation
- Load Control
- Dynamic Voltage Control
- Distributed Generation
- Energy Efficiency
- Smart Metering
- SCADA
- Whole Home Automation & IoT



# Smart(er) Grid Opportunity

M E C

5

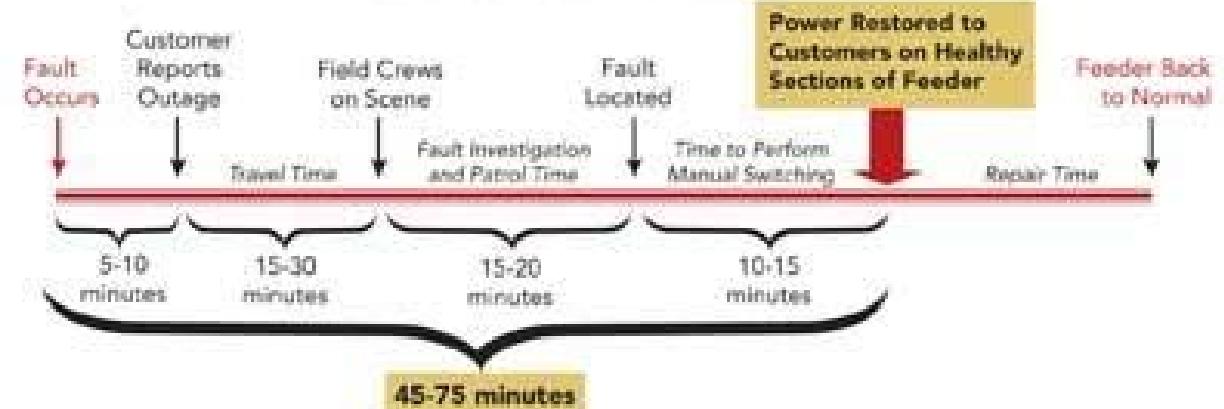
2018

Distribution Automation  
Roll Out

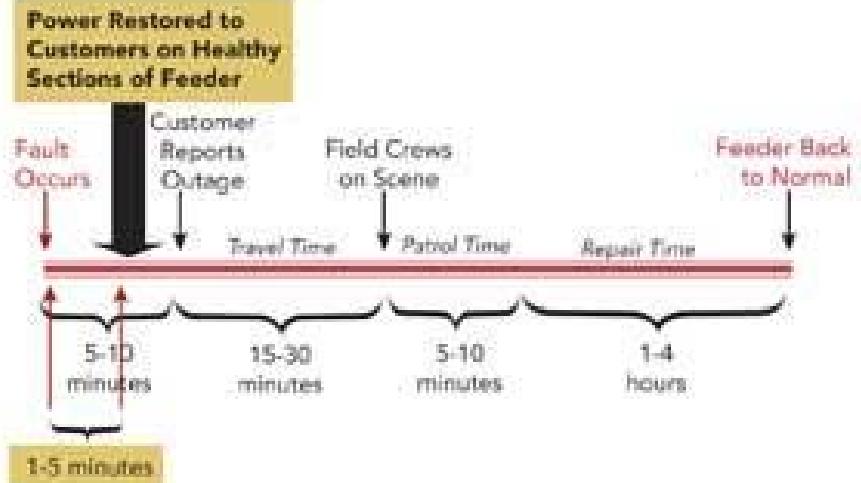
Fault Location, Isolation &  
Service Restoration

## RESTORATION TIME LINE WITH AND WITHOUT FLISR

### 5a: Time Line Without FLISR



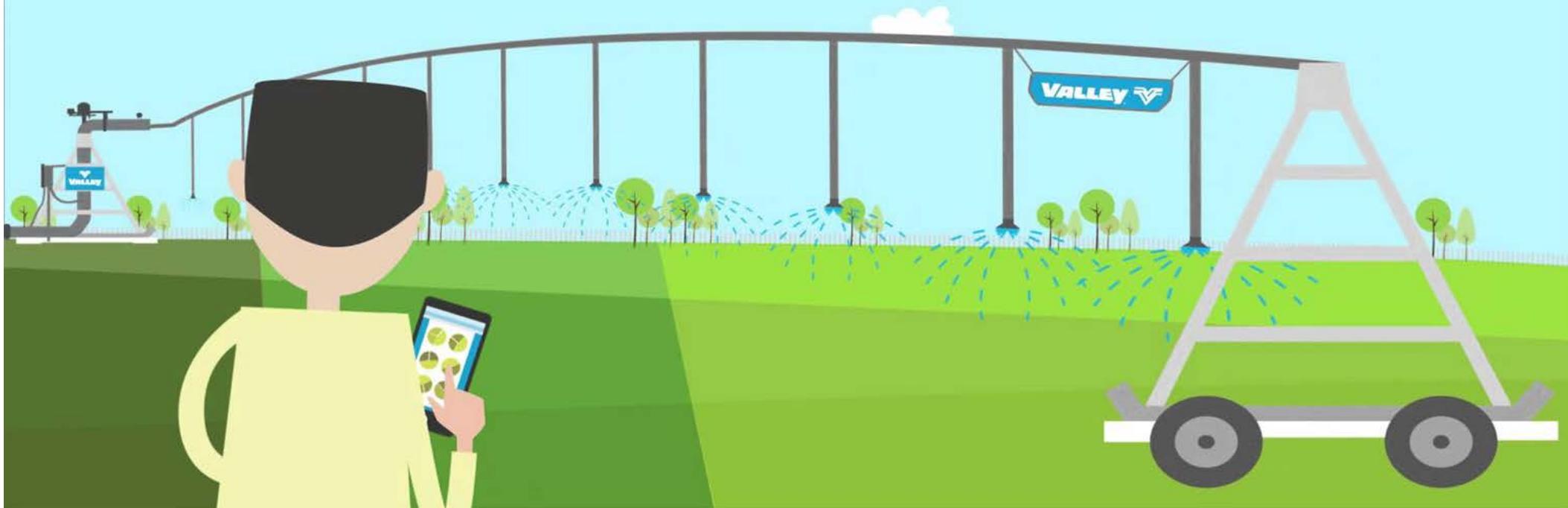
### 5b: Time Line With FLISR



# Smart(er) Grid Opportunity

M E C

Fiber-to-the Farm  
Center Pivot Load Control Opportunity





# The Rural/Urban Digital Divide



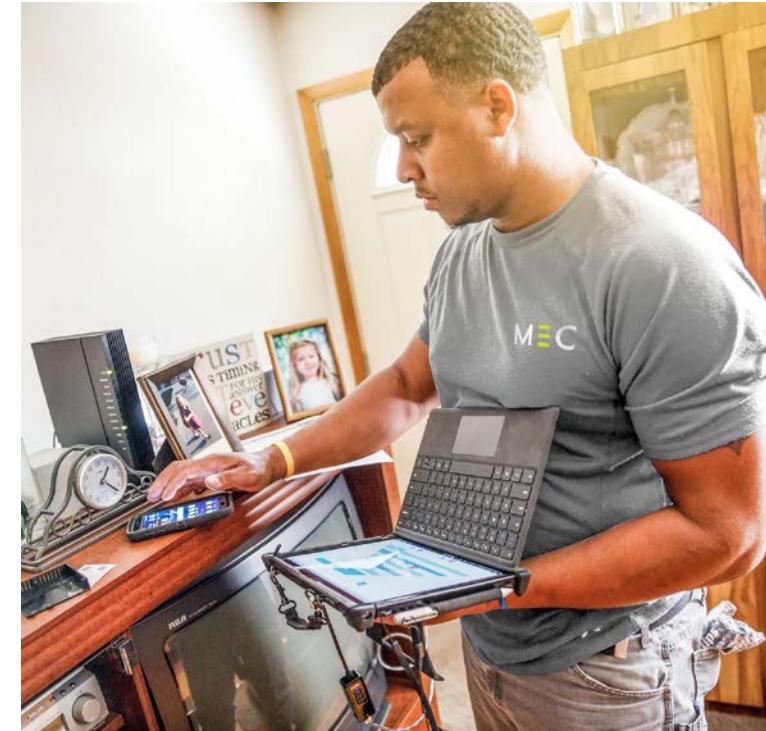
“The one regret about this home is that there is no high-speed internet. I am concerned now about when my children are going to school, if they will be able to remain competitive with other children who have internet. 20 years ago things were different, but today we need internet access. Everything is moving to be download-only and the world expects that you have internet.”  
(Matthew)



# A Rural Broadband Solution



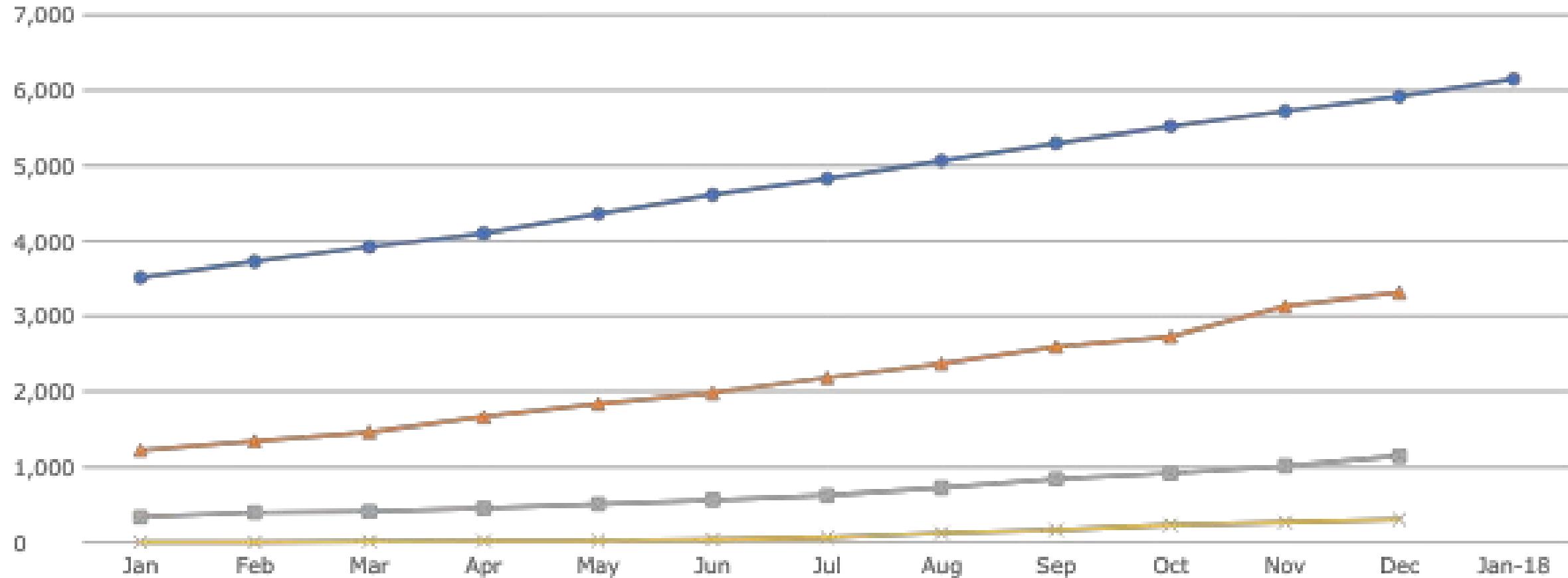
- MEC and Fiber-to-the-Premises (FTTx)
  - Board approved five-year buildout in 2014
  - 243 miles of fiber through substations & facilities
  - 1,800 miles of FTTx
  - Financed through USDA-RUS work plan loan
  - Take rates are exceeding projections
  - Cash flow/net income positive ahead of schedule
    - Year five
    - Faster with CAF support
  - Difficult-to-manage opportunity and expectations





# Current Fiber Customers

MEC





# Testimonials



- When you live out in the country, you learn that not all things are easy, not all things are accessible at a moment's notice. The country teaches you patience and understanding. Today, with a blink of an eye, something we were told would never happen to rural people happened. We have internet, not by a tether of a phone, or an air card with an astronomical price tag on it. Thank you Midwest for being the stand-up people you said you were. I cannot thank you enough. (Laura)
- We are so pleased with Midwest as we thought this service would never come down our dirt lane off of a dirt road! (Susan)
- Love the service! My adult children can take college classes online now instead of making the 30 minute drive every day! This service is such a blessing. You never realize how much easier life is when you're not so limited! (Hubert & Brenda)

# Fiber Opportunity

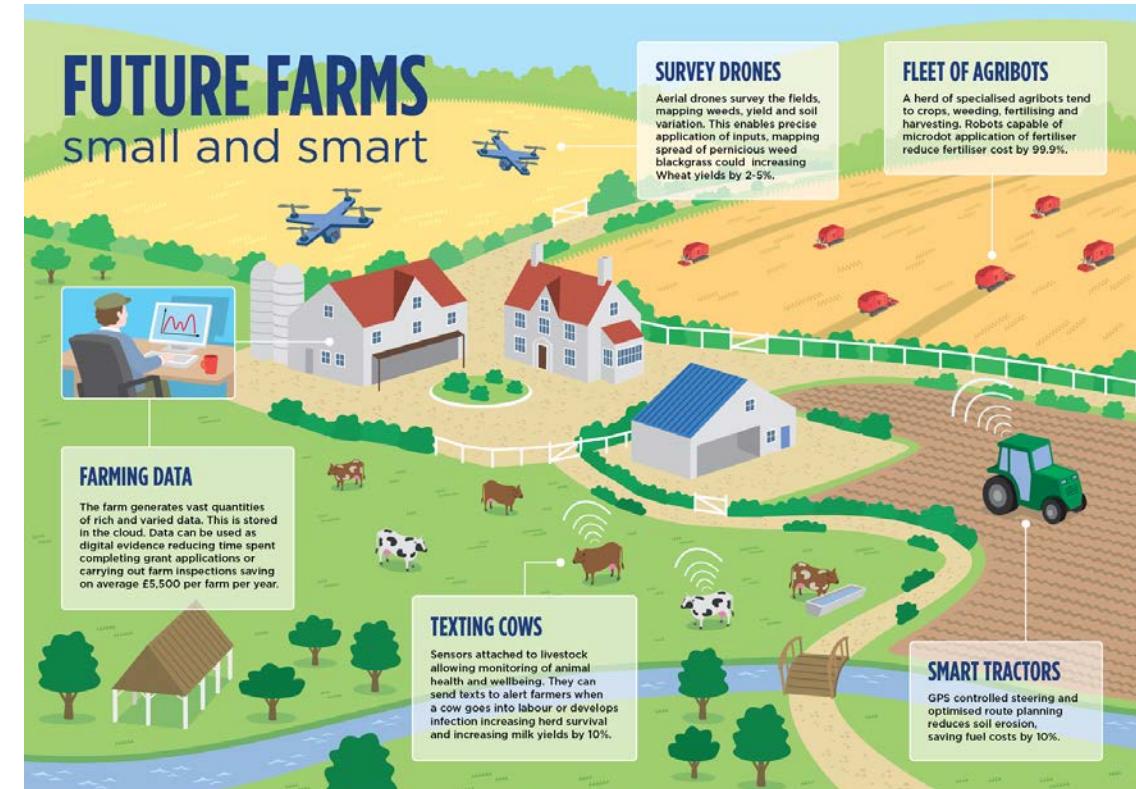
- Economic Development (City of Niles)
  - City of Niles
- Connecting Communities & Neighborhoods
  - Lyndon Township
  - Trestle Creek Subdivision
- Connecting Rural Michigan
  - Michigan Electric Cooperatives
- Aging in Place/Telemedicine
- Schools & Libraries
  - Testing
  - Connecting Students at Home
- Telecommuting
- Whole Home Automation & IoT



# Precision Farming

M E C

- Smart Tractors
- Irrigation & Fertilizer Application
- Farming Data
- Livestock Monitoring



# A Final Thought

M E C

- Connected devices and IoT continues to expand unabated. Do we invest in more “Chevys” as some at the FCC suggest or do we demand something that can power this growth?





TOGETHER  
OUR FUTURE IS BRIGHT



ELECTRIC



INTERNET



PROPANE