EMPOWER

BROADBAND

Powered by MEC

Community Broadband Initiative

Leveling the Playing Field

MECKLENBURG ELECTRIC COOPERATIVE

Your Touchstone Energy® Partner

www.meckelec.org

MEC: ESTABLISHED TO SERVE!

In 1938, as a part of Franklin D. Roosevelt's NEW DEAL programs, Community Leaders Created Mecklenburg Electric Cooperative to provide electric service to Southside Virginia.

WHY IS MECKLENBURG ELECTRIC COOPERATIVE PROVIDING BROADBAND?

Its Our Mission!

To Provide Services and Create Opportunities To Enhance the Quality of Life

2016 BROADBAND PROGRESS REPORT … ACCESS IS NOT REASONABLE AND TIMELY

- 34 million people nationwide lack access to 25/3 mbps – 4 percent of people in urban areas.

- 39 percent (23 million people) in rural areas lack 25/3 mbps.

WHO WILL ANSWER THE CALL?

ELECTRIC COOPERATIVES ARE DELIVERING FOR RURAL AMERICA

Traditional Cable and Telcos will focus on urban and suburban first

- For profit companies seeking to maximize ROI
- Can almost always generate larger profits in areas with higher density

Cooperatives are best positioned to provide Broadband to their communities

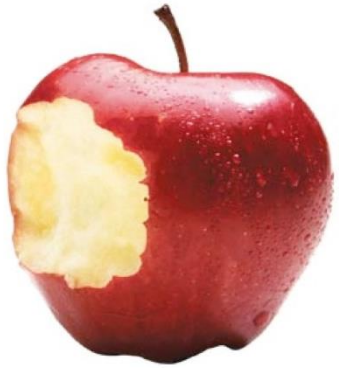
- Not-for-profit, member-owned
- Understand and accept longer pay-backs
- Like electric, fiber optic networks are multi-generational networks (25-50 year life)

THE "NEW DEAL 2.0"…

Rural America Is Building Its Own Internet Because No One Else Will

KALEIGH ROGERS
Aug 29 2017, 11:00am

Big Telecom has little interest in expanding to small towns and farmlands, so rural America is building its own solutions.

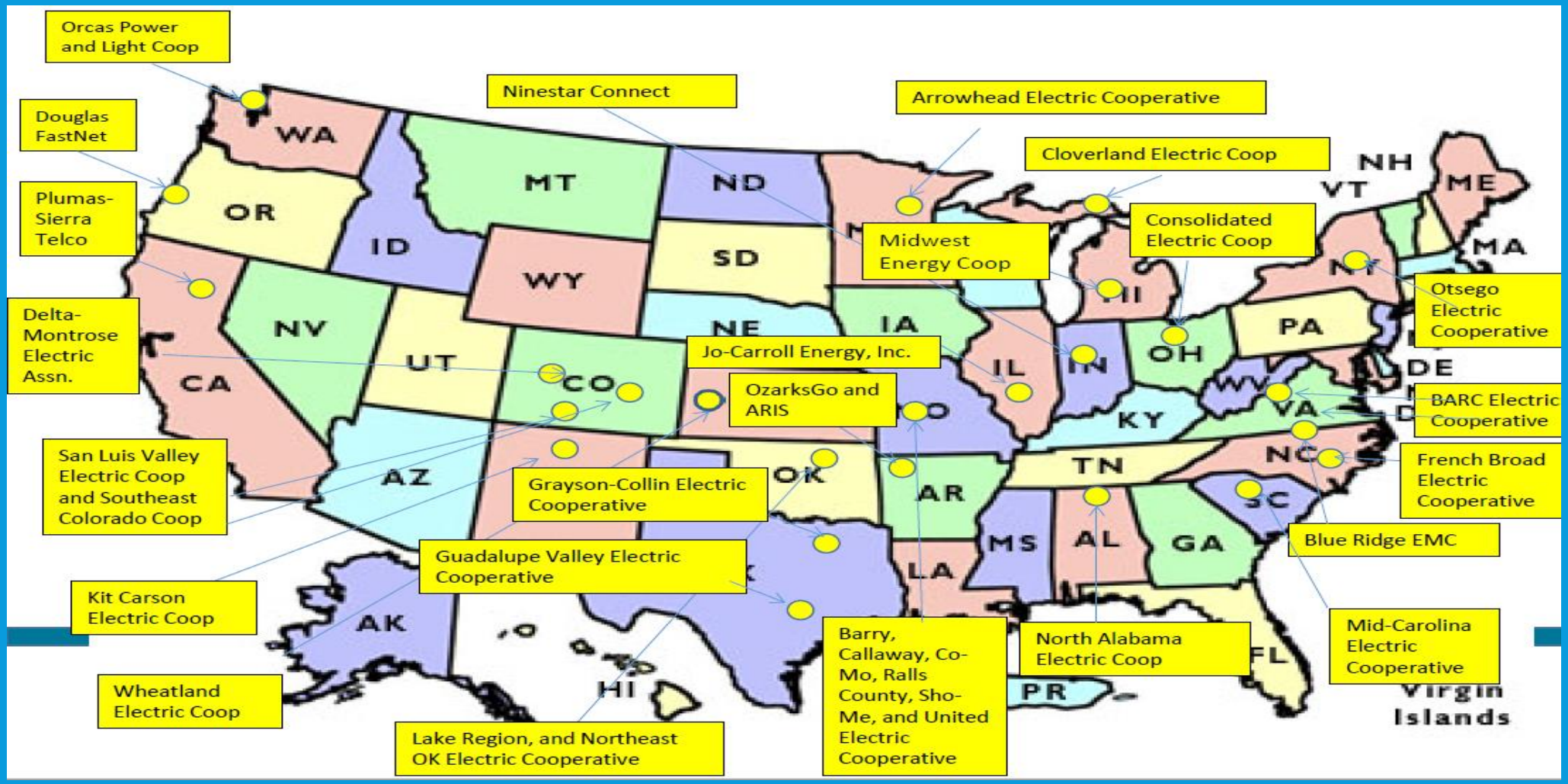


"This is the new New Deal!"

Sheila Allgood
Manager of Bolt, Northeast Oklahoma Electric Cooperative's Broadband Subsidiary.

"The best approach for co-ops is to eat the apple one bite at a time".

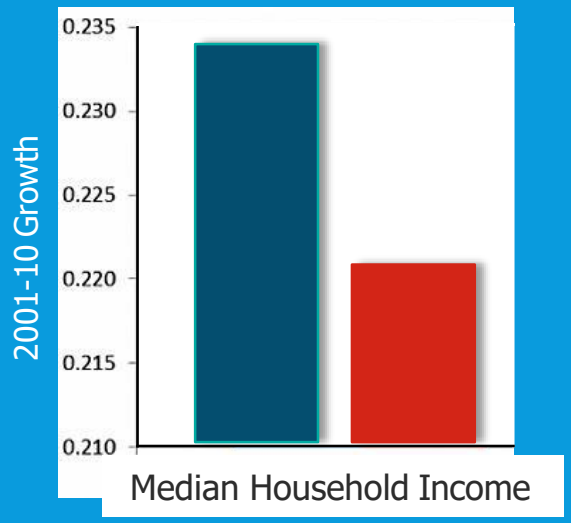
Electric Cooperatives Leveling the Playing Field



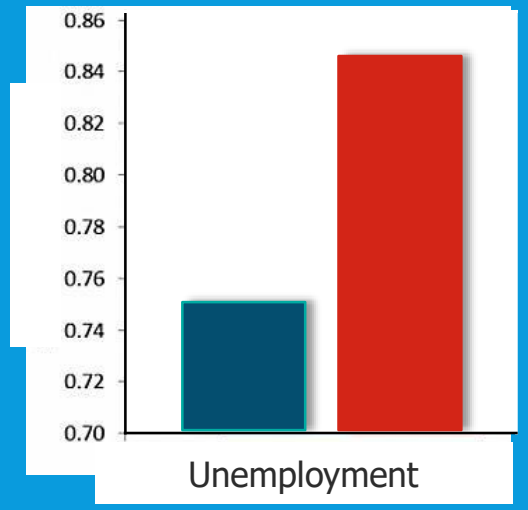
WHY IS MECKLENBURG ELECTRIC COOPERATIVE PROVIDING BROADBAND?

Broadband leads to income and employment gains…

Rural counties with **HIGH LEVELS** of broadband adoption (>60%) compared to similar rural counites that did not

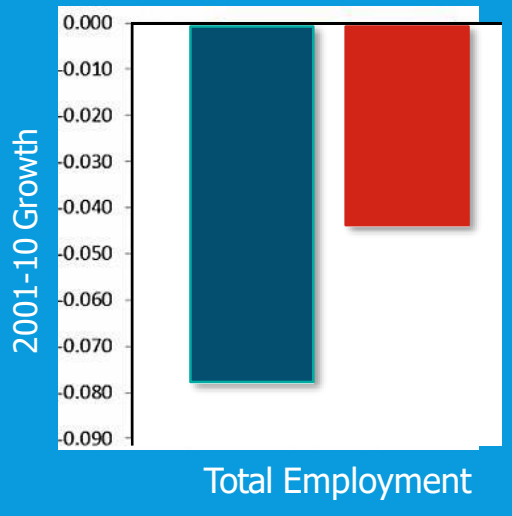


Income grew faster

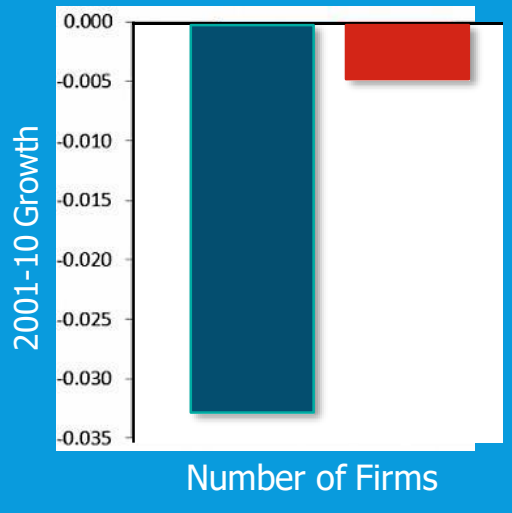


Unemployment grew slower

Rural counties with **LOW LEVELS** of broadband adoption (<40%) compared to similar rural counites that did not



Lost more jobs



Lost more firms

High BB Adoption
Otherwise Similar

Low BB Adoption
Otherwise Similar

Source: 2013 study funded by the National Agriculture and Rural Development Policy Center

WHY FIBER? IT DRIVES THE REST!

Most things wireless are not really wireless.

Without the wired network,

there would be no wireless.

Ernie Carey, SVP Engineering & Construction, AT&T

FIBER ADVANCES MEC'S NETWORK

- Headquarters Connectivity
- Reduce Internal Cost of Existing Telecommunications
- Speed and Bandwidth to Substations
- Provides the Foundation for Smart Grid
- Connectivity to Meter, Home, and Downline Devices

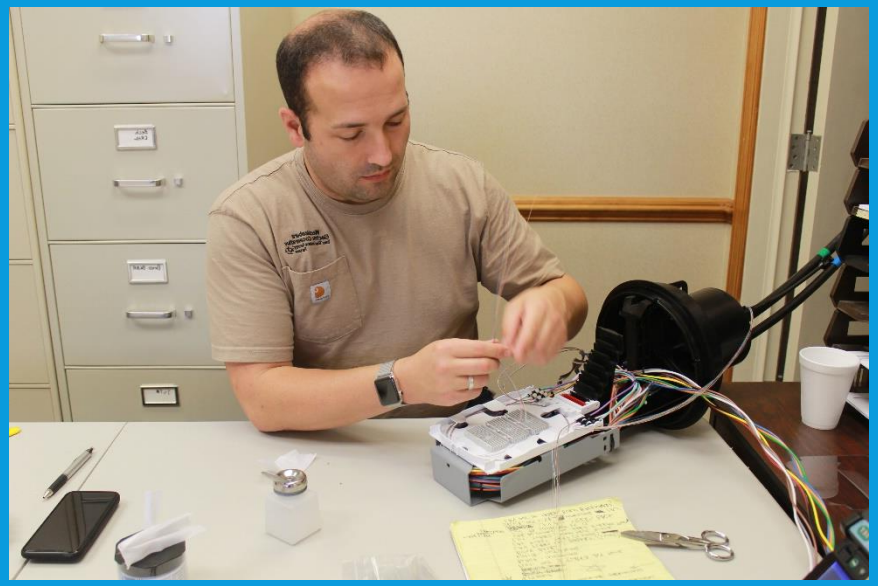
HOW DOES OUR COMMUNITY BENEFIT FROM FIBER DEPLOYMENT?

- Economic Development
  - Business Expansion
  - Smart Farms
  - Work from Home / Telework
- Telemedicine
  - Timely Follow-ups
- Education
  - Online Classes / Remote Teaching
  - Research
  - Allowing each student needed access and in turn success

Microsoft Campus, Boydton, VA.

MEC WILL BUILD A FLEXIBLE SCALABLE FIBER NETWORK!

MEC Requires a Fiber communication network to support growing demands…

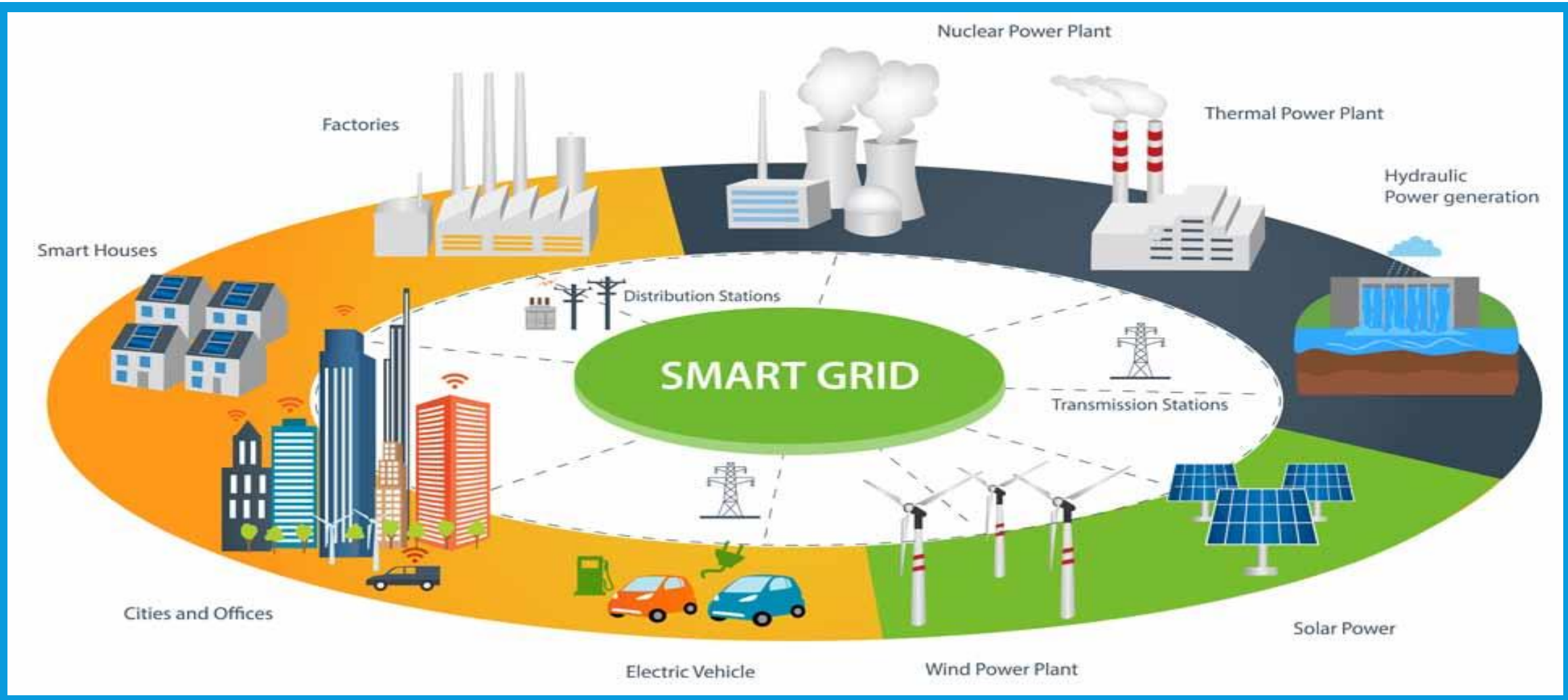


- Real-time synchronous data flow between end points . . . beyond the meter and to the specific appliance and application level

… and this network can provide broadband across our communities.

- Broadband service for commercial, industrial, home business
- Partner with Counties for education and business development

EVOLVING TO A SMARTER GRID... REQUIRES GREATER CONNECTIVITY



THE ADVANCING SMART GRID IS ON A DATA BINGE...

A few years ago...

Data usage increase of 10,160 x

PLC Meter Data Usage	
1 read / month	1 KB
Meters	25,000
Monthly data	**25 MB**
Total/month	**25 MB**

... to today...

Smart Meter Data Usage	
1 read / 15 minutes	
2,880 reads/month	2.9 MB
Meters	25,000
Monthly data	**73 GB**
1 read / minute	43.2 MB
Downline Volt Meters	250
Monthly Data	**11 GB**
8 Meter snapshots/hr	5.8 MB
Meters	25,000
Monthly Data	**145 GB**
Queries/overhead	**25 GB**
Total/month	**254 GB**

MEC... A COOPERATIVE OF THE FUTURE

Leveraging communications infrastructure to deliver fiber-speed data to our members

THE RISING TREND IN HOME DATA CONSUMPTION

Streaming Video uses 0.7 GB to 7 GB per hour

FaceTime, skype, Google Hangouts	Video Calling	30 - 140 MB per hour
amazon music, rdio, PANDORA, Spotify	Streaming Music	30 - 140 MB per hour

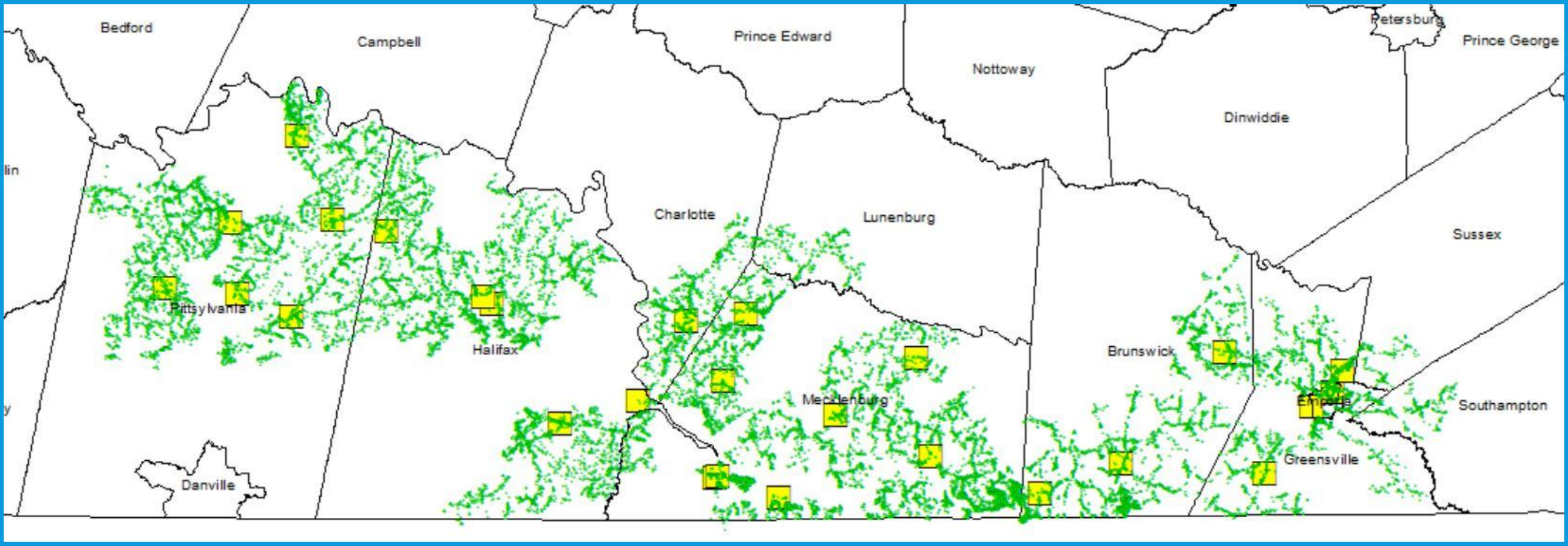
Online Consultation and Telemedicine provide vital and timely follow-ups and ensure patients remain healthy and avoid hospital stays.

WE ARE THE INFAMOUS "WHITE-SPACE"!

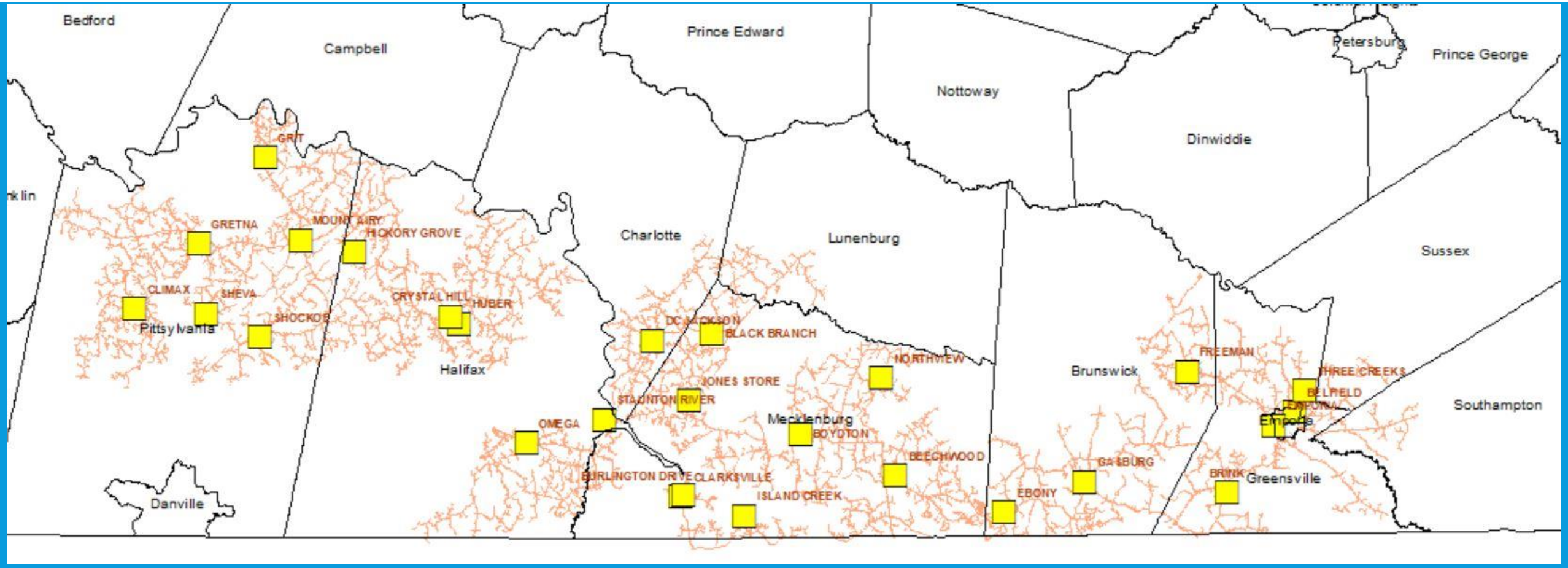
Greater Than 50Mbps is Basically Non Existent in Our Communities

https://broadband.cgit.vt.edu/IntegratedToolbox/

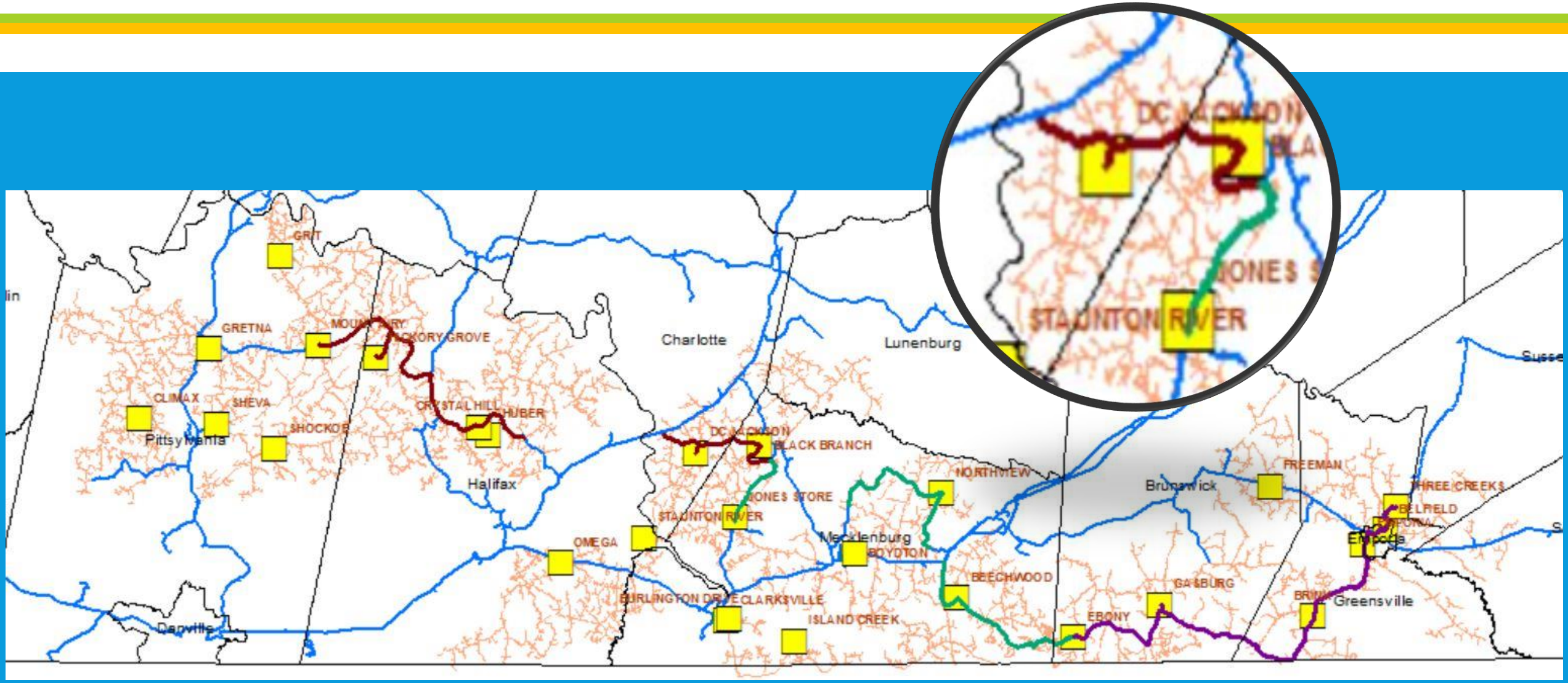
MEC ELECTRIC GRID – LEADING TO OUR MEMBERS HOMES!



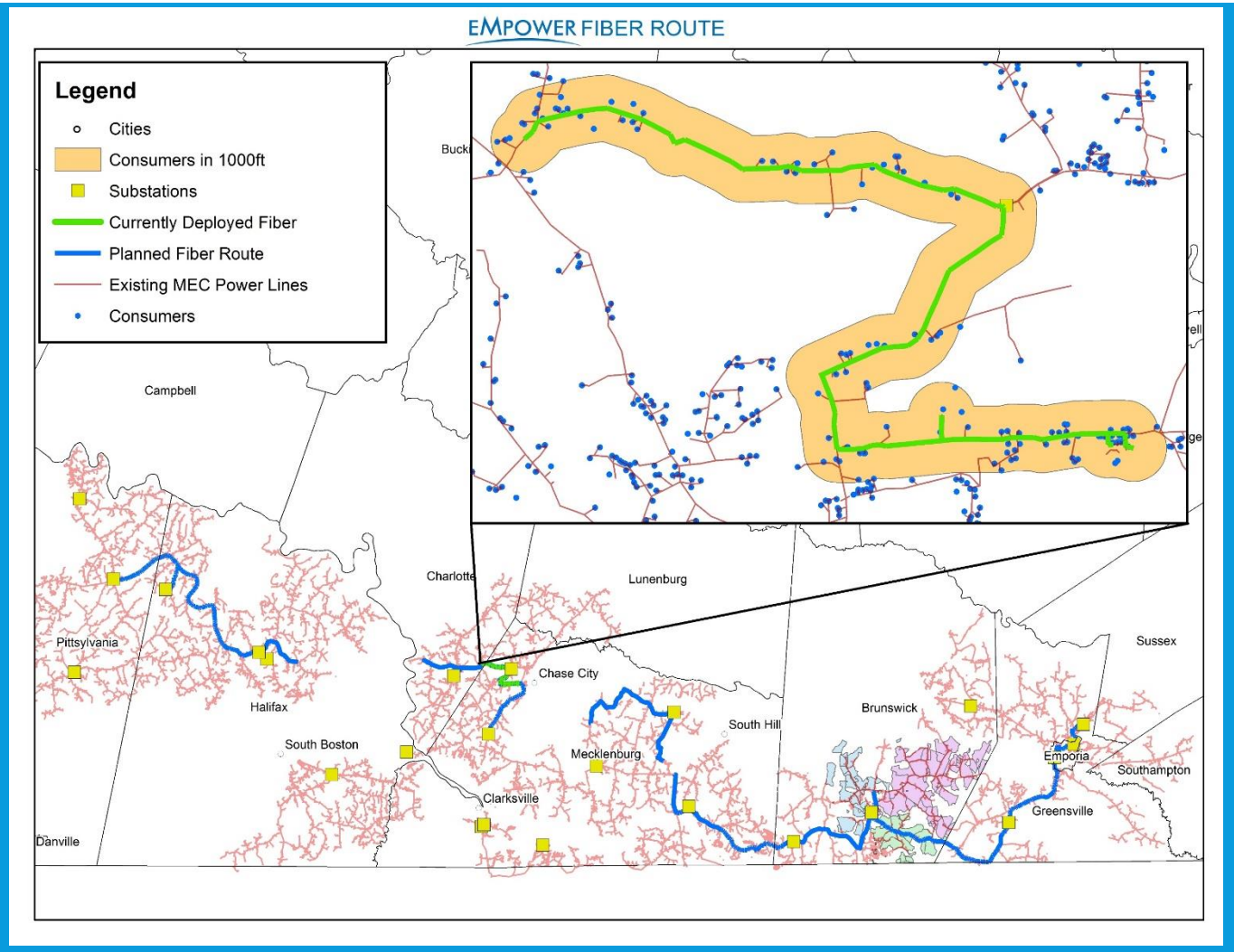
LEADING TO OUR MEMBERS HOMES!



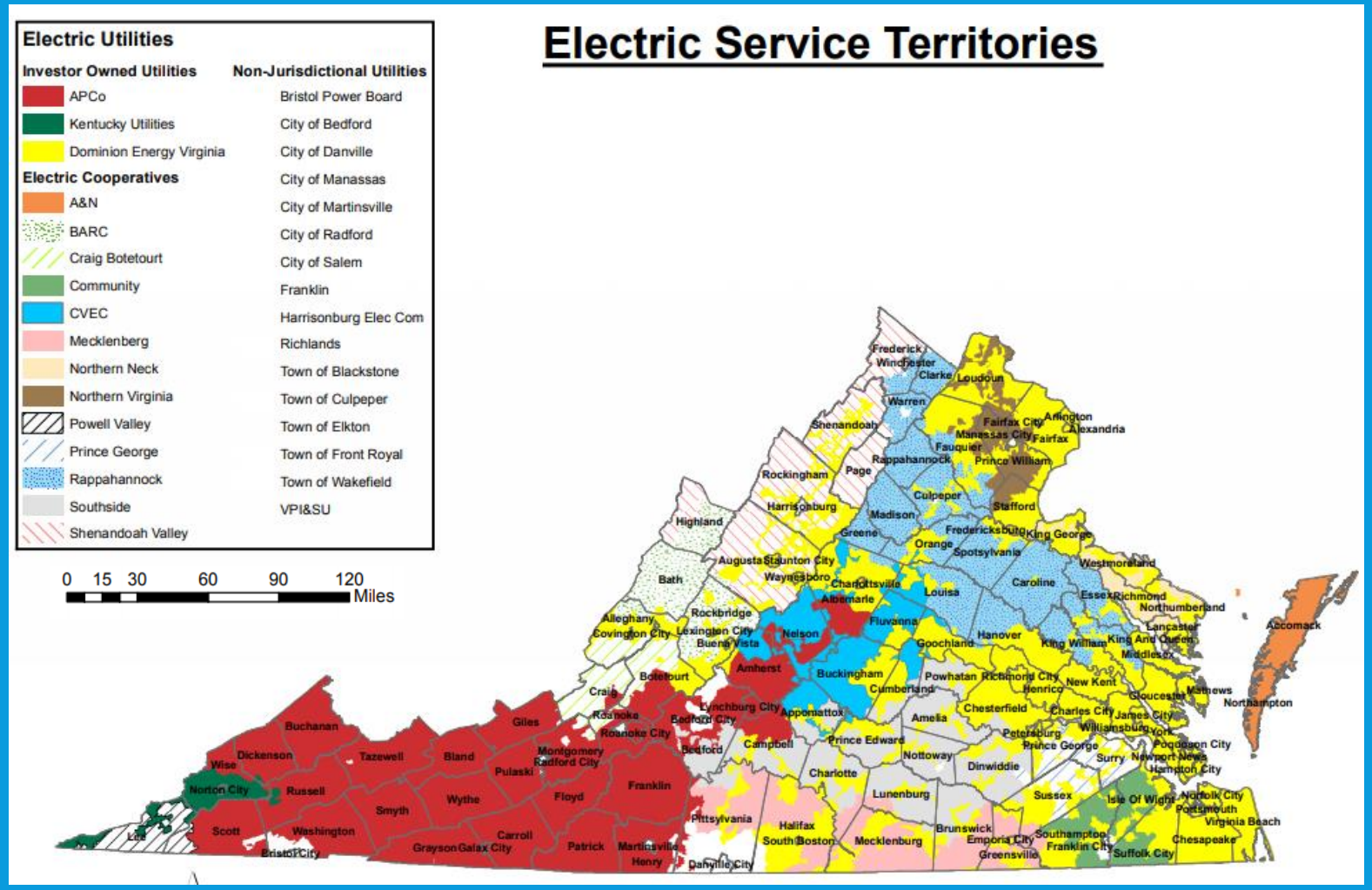
EMPOWER WORKING TOGETHER TO - SERVE OUR COMMUNITY !



TEN MILES DEPLOYED!



COOPERATIVES WORKING TO SERVE COMMUNITIES !



FCC CHAIRMAN: CO-OPS KEY TO RURAL BROADBAND

"What you're able to do—given your infrastructure, your footprint, your dedication to your communities—is make sure the next generation of Americans has access to the 21st-century version of ELECTRICITY, which is BROADBAND."

Ajit Pai, FCC Chairman

"Increasingly, what I see when I go back home and travel to other towns like Parsons is that there's a sense that they are on the wrong side of the digital divide—that they are simply not going to be able to have the 21st century economic and social opportunities that others do,"

By Michael W. Kahn, Staff Writer NRECA (National Rural Electric Cooperative Association) 1/16/2018

AN AFFORDABLE SOLUTION

EMPOWER BROADBAND Powered by MEC

Now offering Fiber-to-the-Home Broadband Service.

Get the fastest and most dependable internet speeds available today.

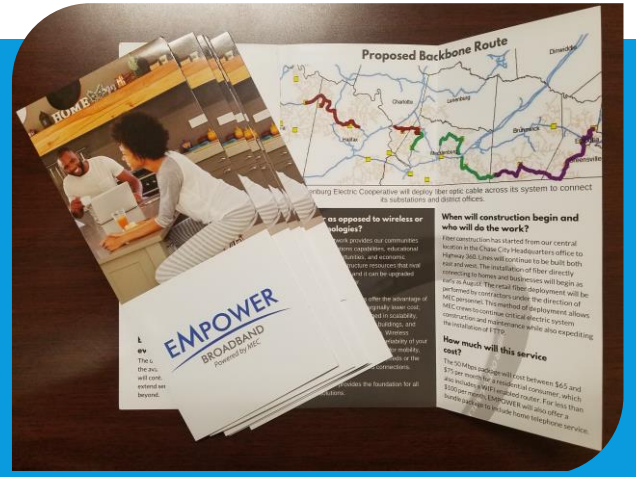
CALL TODAY TO SIGN-UP!

Also offering home telephone service.

Residential Pricing

Premium Package	Ultra Package	Lightning Package
$69.95 Month	$119.95 Month	$269.95 Month
Add home phone for $30.00	Add home phone for $30.00	Ad
Total $99.95	Total $149.95	T
50/50 Mbps	100/100 Mbps	

*All prices include in-home Managed Wirel



EMPOWER

BROADBAND

Powered by MEC

QUESTIONS?