Broadband Contributions to Economic Development in NM

NM Interim Economic Development Committee

August 31, 2020

Sacred Wind Communications' Investments

Fiber to Tower to Home

Fiber to the Home

Basic & Broadband Infrastructure

$55 Million USDA/RUS loan

$13.8 Million USDA/RUS Loan

$10.6 Million SWC own funds

$12.0 Million FCC e-rate grants

$2.1 Million CAF II auction

$1.5 Million Microsoft partner

$8.3 Million USDA/NMDoIT grant
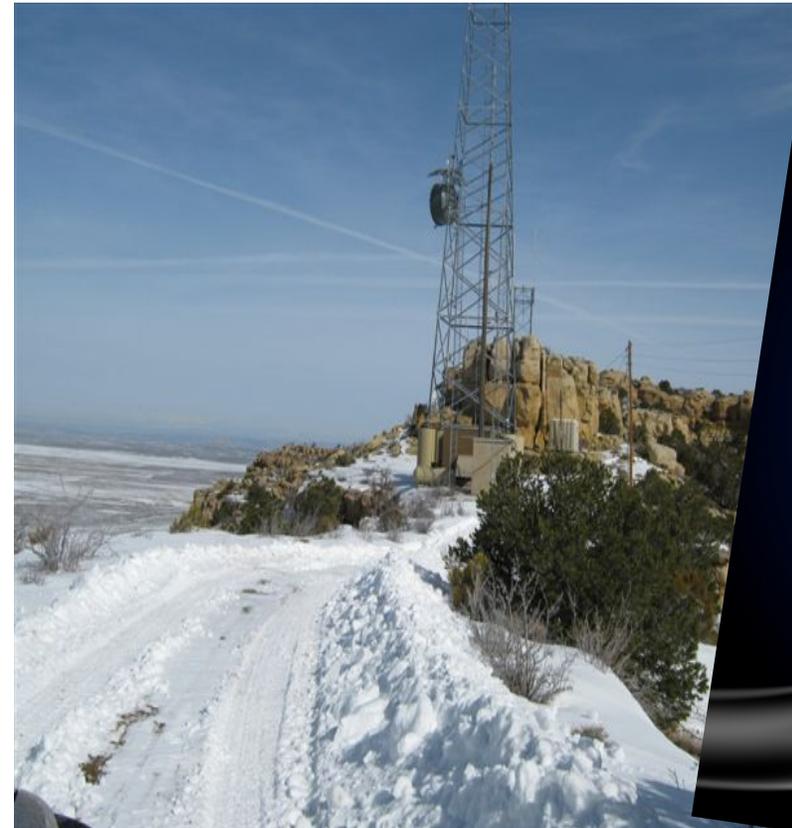
Sacred Wind's Broadband Achievements

Broadband Availability

- 10-100 Mbps - 3,200 sq miles
- 25-100Mbps add'l 400 sq. miles
- 1 Gbps - 30 GMCSD schools
- 1 Gbps Acoma School
- 1 Gbps – Hatch & TorC Schools
- 10-25 Mbps Laguna Pueblo
- 100 Mbps – Grants/Milan
  - Bluewater Village
 - San Rafael

Areas benefitted
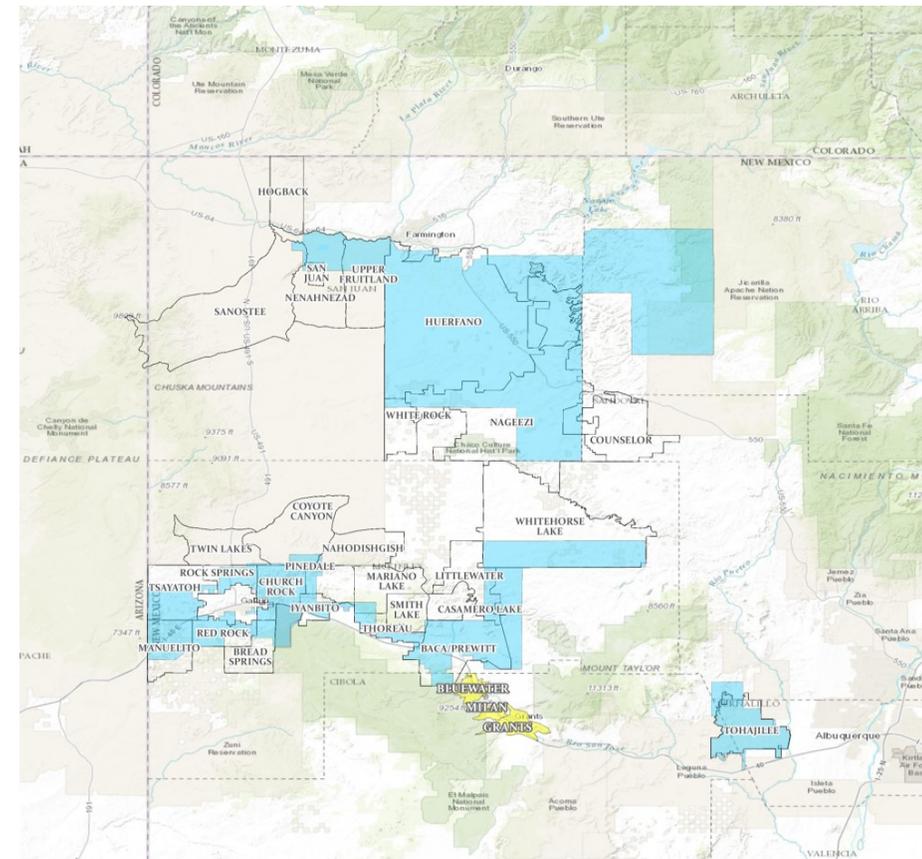
Principal Messages

- Broadband is indeed a Tool, not an Outcome

- Rural broadband development must be planned
  - Rural locales must identify what they want & can do
  - State resources, augmented by federal resources, must be committed

- Broadband development is up to us.

Broadband Tools

- Agriculture
- Arts & Crafts
- Academics
- Architecture
- Biomedical research
- Online Services
- Tourism
- Etc.

irrigation canal flood damage

relative good crop health

Bare spot

irrigation canal flood damage

relative poor crop health

Bare spots
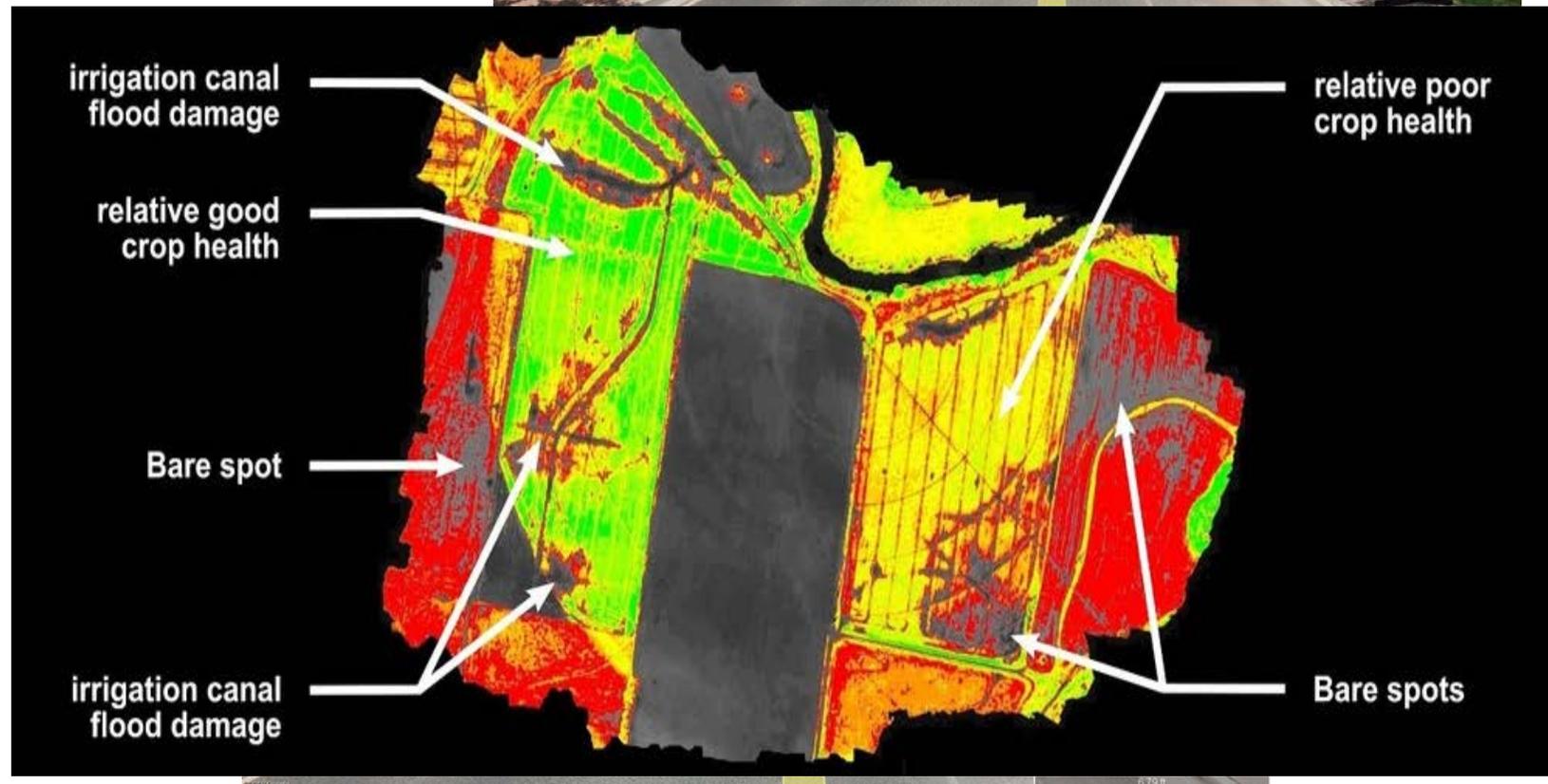
Broadband capacity or speeds

| Number devices (laptop, iPhones)	Uses (Accumulative)	Download Speeds
1 - 2	Email, surfing, Facebook, YouTube	5-10 Mbps
2 - 3	Distance learning, moderate video streaming	25 Mbps
3 - 5	Gaming, heavy video streaming	50–100 Mbps
Above 5	Commercial graphics, heavy video streaming	100-200 Mbps

Broadband Technologies

- Fiber to premise
- Fiber to copper to premise
- Fiber to fixed wireless
- Fiber to mobile tower
- Satellite
- Nascent alternatives
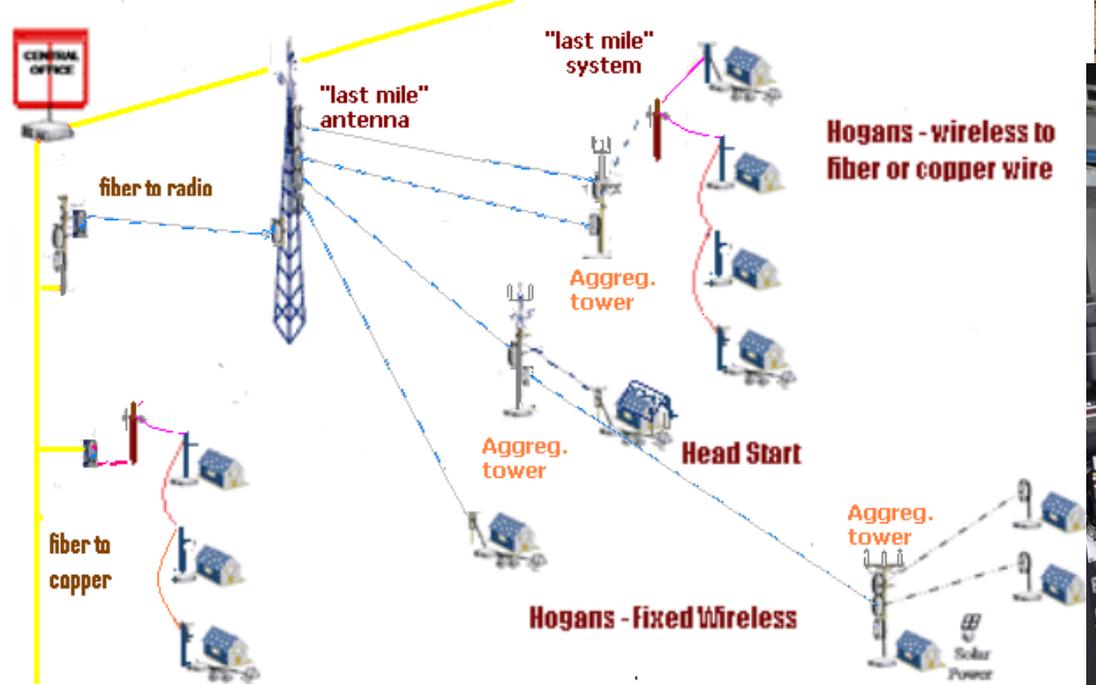
National Broadband Resources

- ARRA 2009 ("Stimulus Act")
- USDA/RUS Grants & Loans
  - ReConnect & CCG grants
  - Rural economic development grants
- NTIA, EDA & NSF Grants
- FCC Grants
  - USF/CAF mobility Fund
  - CAF I & CAF II Broadband auctions 2016-2018
  - E-rate grants
  - Distance learning & telemedicine special grants

CAF Phase I & II "Eligible Locations"
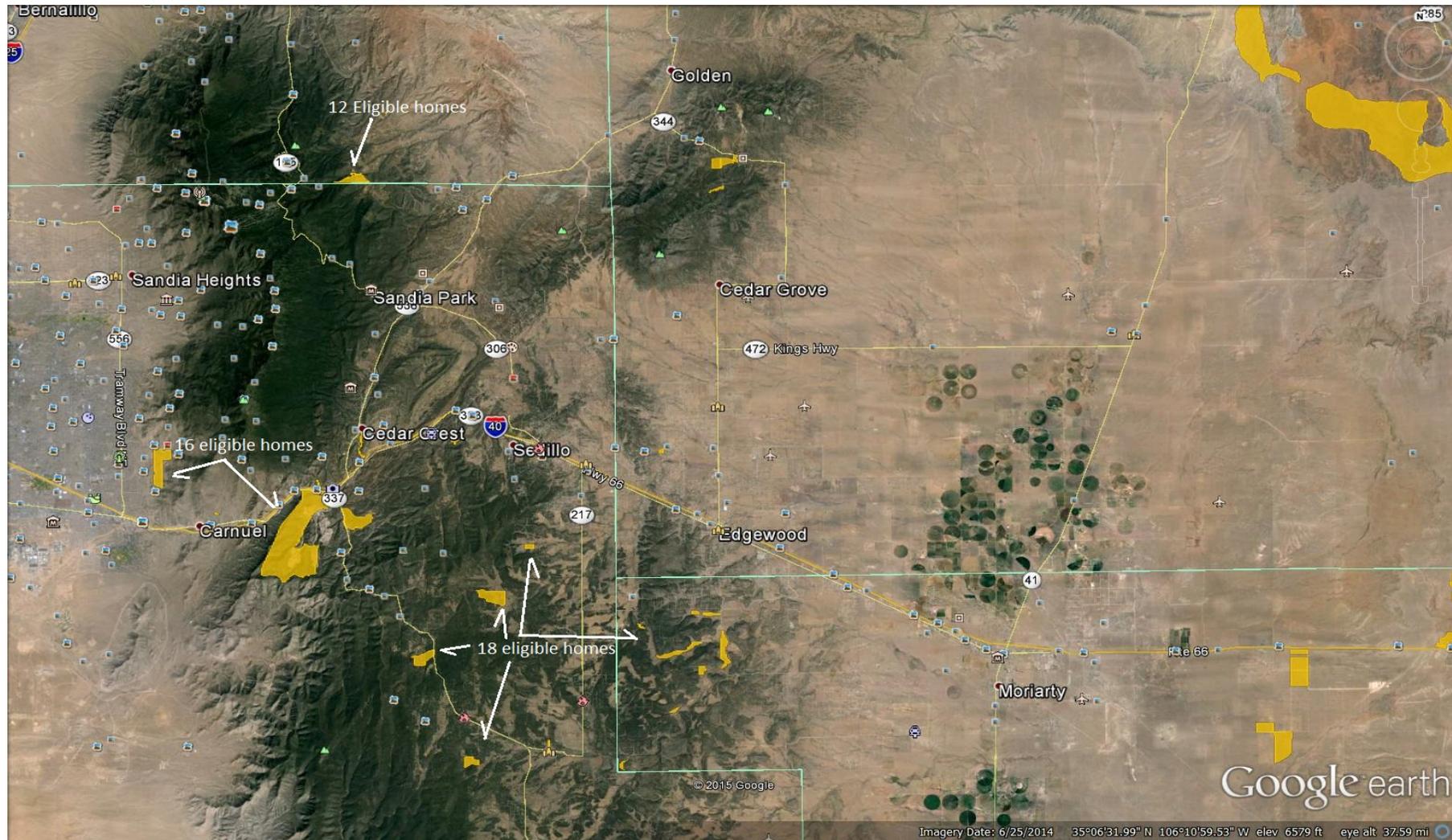
State/Local Broadband Resources

- NM DoIT Broadband grants & projects
- NM PRC Broadband Fund
- Capital outlays & appropriations
- LEDA funding
- Municipal Bonding

# Total Rural Broadband Resources

They Ain't Enough!

- All Rural NM Areas Covered

  - Landline - $3-5 Billion
  - Wireless - $1.5 Billion
  - Alternatives ?

And it can't be done alone and must be planned!

Most Significant State Resources

12 NM Rural Telecoms
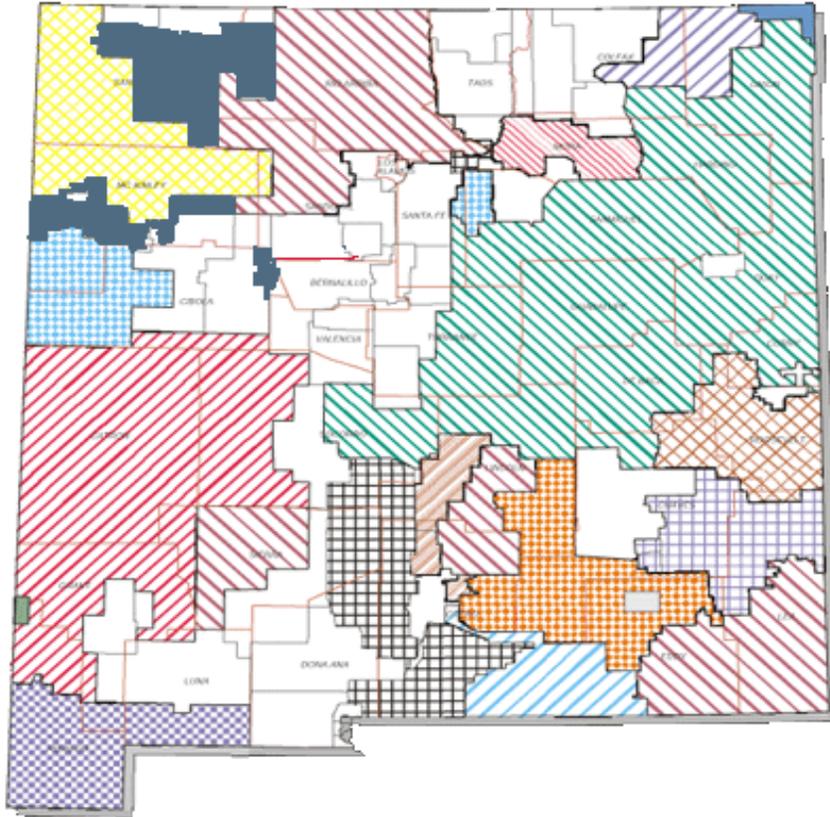
14 NM Rural Electric Cooperatives
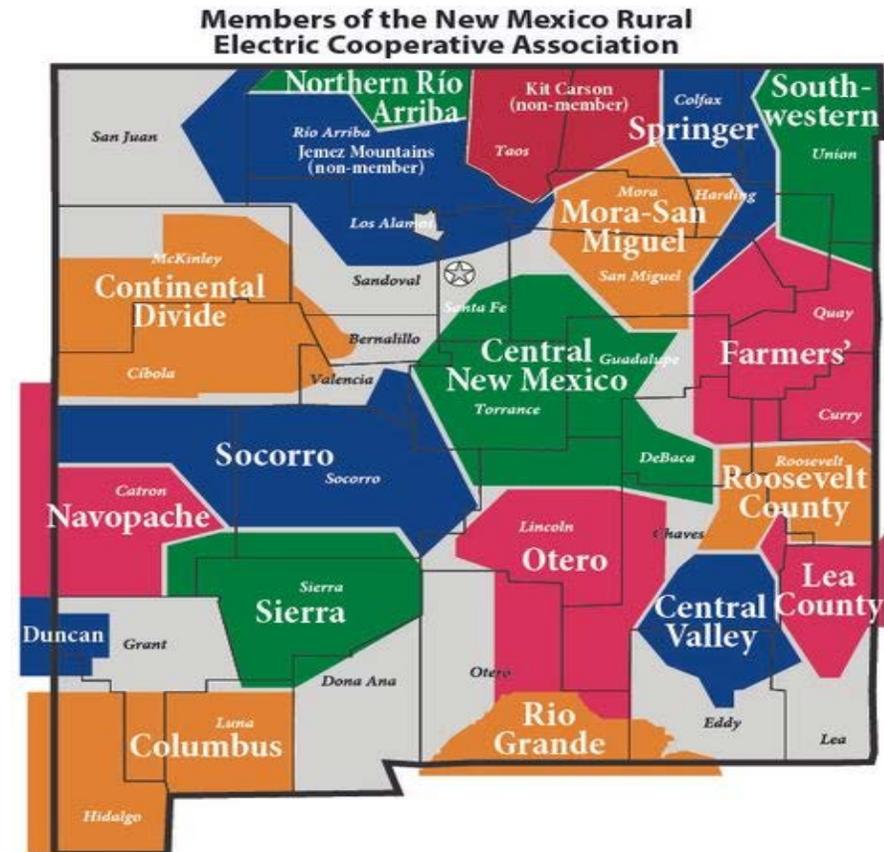
Broadband Planning – Identify Our Strengths
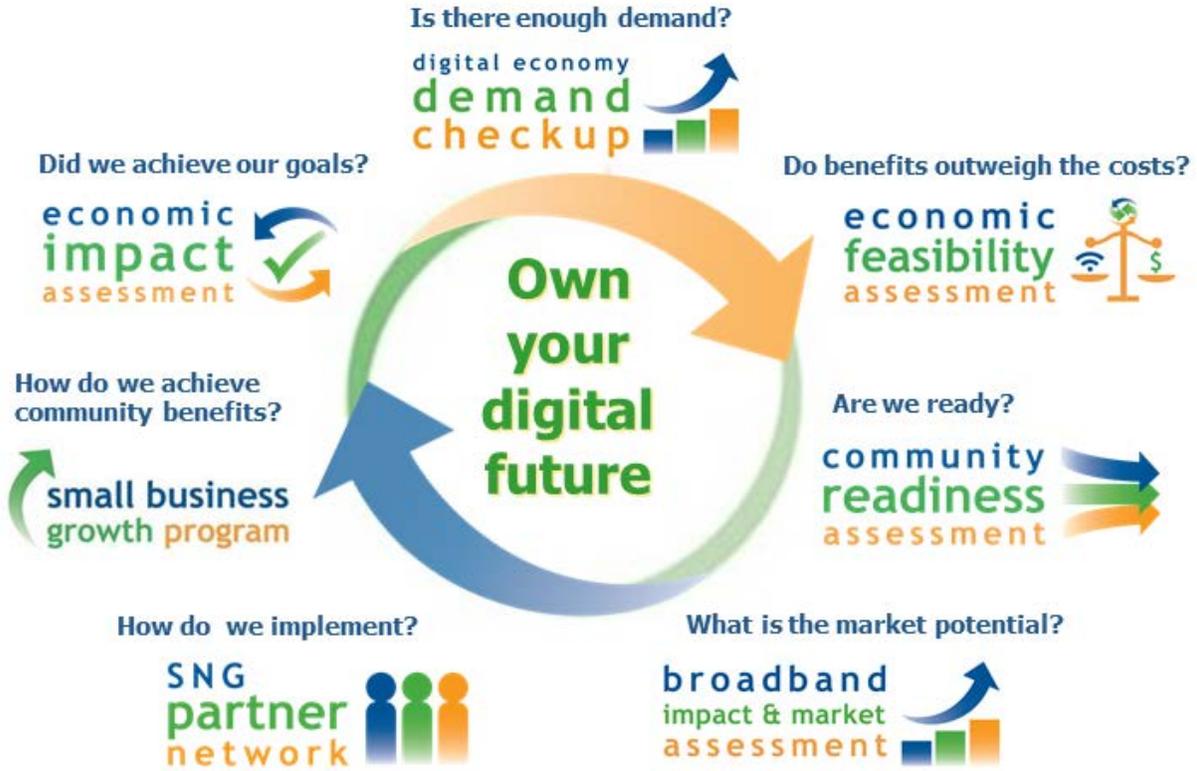
Our Potential Alternative Broadband Sector

Convert Deficiency to a Growth Opportunity

- CAF II & RDOF auction infrastructure development
  - MW spectrum equipment
  - Tower infrastructure
- Alternative 5g and Middle Mile technologies
  - Research & testing
  - Assembly & manufacturing

Research Resources

- NMSU
- Navajo Technical University

Alternative Broadband Delivery Technology

Middle Mile - Rural

Urban 5G

Rural Broadband Solutions

Collaboration needed

- Providers must partner with local governments

- Providers must maximize federal grant/loan offerings

- State must establish a central broadband plan

- State must increase broadband funding programs
  - Including research sponsorships

Legislative commitment

- Public/Private partnerships incentivized

- State fund for alternative broadband technologies

- Larger State fund for rural broadband projects

- State subsidy for Middle Mile

THANK YOU

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