Report on Opportunities to Expand Broadband Coverage in the Central Sierra Regional Broadband Consortia

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February 19, 2020
CENIC is a 501(c)(3) with the mission to advance education and research statewide by providing the world-class network essential for innovation, collaboration, and economic growth.

- **Charter Associates:**
  - California K-12 System
  - California Community Colleges
  - California State University System
  - Stanford, Caltech, USC
  - University of California
  - California Public Libraries
  - Naval Postgraduate School
• 8,000+ miles of optical fiber

• **Members in all 58 counties** connect via fiber-optic cable or leased circuits from telecom carriers

• **Over 12,000 sites** connect to CENIC

• **A non-profit** governed by its members

• Collaborates with over **750 private sector partners and contributes > $100,000,000** to the CA Economy

• **20 years** of connecting California

• 20,000,000 Californians use CENIC
Central Sierra BB Gap

- Large gaps exist along Highways 120 and 49
- Open Access Middle Mile routes would facilitate collaboration
- Diverse Middle Mile routes would enable broadband access equitably across the region

Source: 2019 Census data by zip code cross referenced to FCC broadband penetration analysis
Existing Fiber for Middle Mile Partnerships (Pink Routes)

- Three carriers actively offer middle mile infrastructure for last mile providers
- Proprietary networks service the most densely populated pockets typically do not offer middle mile access
- Middle mile infrastructure could offer very resilient diversity options
The goals of the plan are described on broadband.gov:

• At least 100 million U.S. homes should have affordable access to actual download speeds of at least 100 by the year 2020.

• Every American should have affordable access to robust broadband service, and the means and skills to subscribe if they so choose.

• Every American community should have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals, and government buildings.

• To ensure the safety of the American people, every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.
CA Advanced Services Fund

- Potential investment by the State in the region

- State is targeting all areas of the region with strategic focus on very hard to service pockets of need

- Starting July 1, 2020
PSAP Locations

- Next Gen 9-1-1 fiber deployment locations
- Physically and contractually diverse fiber connections
- And wireless connections
Rural Broadband Deployment
Cost Per Subscriber

According to Rural Broadband Association (NCTA.ORG) a household “take” rate of 35%, the investment per active subscriber is approximately $5,000 even with linear density levels of 20 houses per road mile. There are vast regions of the U.S. with linear density below that level.
FCC Recommended State Model for Accelerating Broadband Infrastructure

- Rights of access to existing network support infrastructure
- Special provisions for rights of access to poles in the communications
- Special provisions for railroad crossings
- New and modified infrastructure to be broadband ready
- State franchise agreements incorporating open/neutral carrier access
- Rural broadband deployment assistance fund
- Rural and Municipal-owned broadband networks

https://www.fcc.gov/broadband-deployment-advisory-committee
This report provides an overview of CENIC’s current and prospective broadband network efforts within the catchment area for both Central Sierra Connect and Gold Country Broadband of the California Public Utility Commission’s broadband consortia.

The following charts indicate the four phases of broadband project deployment, defined as:

- **Evaluation**: CENIC has been engaged, quotes and potential designs are being evaluated and chosen, and a request for proposals (RFP) has been developed.

- **Planning**: RFP has been distributed, responses evaluated, the contract awarded and completed, and planning for implementation is underway.

- **Implementation**: A circuit has been ordered and CENIC staff are in various stages of ordering hardware, configuring hardware, deployment, and testing.

- **Production**: Deployment is complete and the site is passing traffic to the CENIC network.
Thank You

For more information or questions please contact

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