El Dorado South and East
Fixed Wireless Broadband

Project Summary:

Cal.net, Inc., a Wireless Internet Service Provider with its base of operations in Shingle Springs, California, hereby proposes to construct and provision a last-mile fixed-wireless broadband Internet and VoIP telephony service project in rural underserved and unserved portions of El Dorado County. The project will comprise exclusively fixed-wireless technology deployed on towers that are either constructed by Cal.net or leased from owners of existing towers.

The broadband Internet delivery portion of the project consists of a variety of tower-deployed fixed-wireless point-to-multipoint solutions for connectivity with the end-user subscribers of the service, plus very high capacity point-to-point FCC-licensed microwave links for backhaul connections to the Internet. End users will be serviced with one of the following technologies, depending on the circumstances of their location:

- Unlicensed National Information Infrastructure (“U-NII”) equipment in various 5-GHz bands for line-of-sight situations;
- Fixed-LTE (a non-mobile variation of the LTE commonly used in cell phones) initially in the 3.65-GHz band primarily for near-line-of-sight (minor obstructions), and later in the 3.55- to 3.65-GHz CBRS band where authorized after the FCC approves this for use; and
- TV White Space in the UHF and upper-VHF bands for heavily-obstructed non-line-of-sight situations.

The VoIP telephony portion of the project will conform to FCC requirements, be enabled over the aforementioned broadband wireless network, and be provisioned via the Company’s existing VoIP infrastructure.
Although our multi-homed fiber-connected Network Operations Center in Shingle Springs will serve as the primary connection to the Internet, we will also interconnect with the newly-built fiber network of the Central Valley Independent Network ("CVIN") for redundancy and additional capacity. The TV White Space equipment will be purchased from Carlson Wireless Technologies, a small business in Arcata, CA. The project will utilize local subcontractors as much as possible to construct the tower facilities. Specialized trades such as microwave communications equipment installers will be sourced from other California-based companies. The project will create 3 new full-time jobs with Cal.net, Inc.

To complete this project, Cal.net is requesting $969,010 of grant funding from the California Advanced Services Fund. No CASF broadband loan funds are requested.

The project will serve the following communities:

Twin Bridges, Strawberry, Kyburz, Happy Valley, Gilberts, Omo Ranch, Sweeney’s Crossing, Grizzly Flats, Coyoteville, Outingdale, Somerset, Pleasant Valley, Melson’s Corner

The following Commission-defined Anchor Institutions will be reachable as a result of this project:

- Gold Oak Union Elementary, 3171 Pleasant Valley Road, Placerville 95667
- Indian Diggings Elementary, 6020 Omo Ranch Road, Somerset 95684
- Mountain Creek Middle, 6862 Mount Aukum Road, Somerset 95684
- Pioneer Union Elementary, 6862 Mount Aukum Road, Somerset 95684
- Silver Fork Elementary, 1325 Sugarloaf Avenue, Kyburz 95720

These are the affected Zip Codes:

95636, 95667, 95684, 95709, 95720, 95726
The project will be able to serve 137 Census Blocks comprising up to 1,728 households within portions of the following Census Block Groups:

060170306034, 060170314021, 060170314022, 060170314023, 060170314024, 060170314041, 060170314042, 060170314063, 060170315043, 060170319001

The project will cover 141.91 square miles as shown in the following area maps:
For further information, contact:

Ken Garnett
Chief Technology Officer
Cal.net, Inc.
P.O. Box 1041
Shingle Springs, CA 95682
(530) 672-1078, x103
kgarnett@cal.net