

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



November 16, 2021

Amy Tong
Director and State Chief Information Officer
California Department of Technology

SUBJECT: Initial Middle Mile Locations

Dear Director Tong,

This letter memorializes California Public Utilities Commission staff concurrence of the initial middle mile project locations. Initial project locations were identified to support multiple objectives: to test approaches for the middle-mile network, accelerate projects in areas of the state that are unserved by open-access middle mile infrastructure, leverage efficiencies with pending Caltrans construction projects, and to coordinate with pending California Advanced Services Fund last mile broadband infrastructure grants that include middle-mile infrastructure. As requested, California Public Utilities Commission (CPUC or Commission) staff have reviewed initial project locations for consistency with Senate Bill 156 criteria. These initial projects represent the first step in creating the statewide open-access middle-mile network that will help bridge the digital divide and achieve broadband for all.

Background

On July 20, 2021, Governor Gavin Newsom signed SB 156 into law, initiating the creation of a statewide open-access middle mile network. The law requires Commission staff, in collaboration with relevant stakeholders, to provide the California Department of Technology a report that contains locations for the statewide open-access middle-mile broadband network. The new law requires, among other items, the Commission to solicit and receive public comments, within 90 days of enactment, on a number of topics related to the network.

The lack of available middle-mile broadband infrastructure has been a major barrier in connecting California's unserved and underserved communities. The statewide open-access middle-mile network included in SB 156 will be a foundational investment to ensure every Californian has access to broadband Internet service that meets the connectivity needs of today, and well into the future. Last-mile infrastructure relies on middle-mile to provide service to residents, large and small-businesses, schools, government offices, public safety agencies, and libraries. An open-access middle-mile network can provide the backbone for last-mile providers to serve residences and reduce costs of providing service for businesses and anchor institutions.

The key provisions of SB 156 require the Commission to: 1) identify existing middle mile infrastructure and areas with no known middle-mile infrastructure that is open access, with sufficient capacity, and at affordable rates; 2) identify priority middle mile locations; 3) identify last mile and anchor institution network end users; and 4) take public comment on the design, technical, business, and operational considerations that would increase the attractiveness and usefulness of the statewide open-access middle-mile broadband network for commercial internet service providers. These requirements are summarized below.

- Identify Existing Infrastructure:

- Identify current locations, routes, availability, technical performance characteristics, and other aspects of commercial sources of supply of middle-mile broadband network services.
- Identify areas with no known middle-mile infrastructure that is open access, with sufficient capacity, and at affordable rates.
- Identify Priority Routes:
 - Identify priority statewide open-access middle-mile broadband network locations:
 - Built expeditiously.
 - Areas with no known middle-mile network access.
 - Regions underserved by middle-mile networks.
 - Regions without sufficient capacity to meet future middle-mile needs.
- Identify Network End Users:
 - Last Mile: Prioritize locations that enable last-mile connections to residences unserved by 25 Mbps downstream and 3 Mbps upstream.
 - Prioritize a geographically diverse group of projects in rural and urban areas.
 - Prioritize locations that achieve the greatest reductions in the amount of households unserved by broadband internet access service meeting federal and state standards.
 - Anchor Institutions: Prioritize service to entities that lack sufficient high-bandwidth connections, including, but not limited to, all of the following: elementary and secondary schools; community colleges and other institutions of higher education; government entities; healthcare institutions; libraries; public safety answering points and technologies to assist in the prevention or response to natural disasters, including, but not limited to, fairgrounds; and tribal lands.
- Network Design and Operation:
 - The locations, routes, technical performance characteristics, network design, regeneration points, interconnection points and tie-ins, and other design, technical, business, and operational considerations that would increase the attractiveness and usefulness of the statewide open-access middle-mile broadband network for commercial internet service providers.

Definitions

“Middle Mile” refers to the high-capacity fiber-optic cables that traverse long distances (e.g., 10s-100s of miles) to connect communities to the Internet backbone. These high-capacity lines are analogous to transmission lines for electric utilities, or aqueducts and rivers for water utilities. This is in contrast to the “Last Mile,” which refers to the wires or cables that connect a house to the nearest utility pole and connect a community to the middle mile. “Open-Access” refers to a network model that allows any entity to access and utilize the infrastructure at a fair market rate and in a non-discriminatory manner.

Initial Middle Mile Locations

SB 156 and Government Code Section 11549.54 are premised on enabling last-mile service connections with an emphasis on unserved households. And SB 156 further identifies priorities for middle mile broadband network locations in “areas that can be built expeditiously.” The initial projects are preliminary locations and new locations supported by specific feedback from the public.

CPUC staff notes that the groups of initial locations identified in this letter are consistent with the SB 156 criteria primarily in the following ways, although some projects fall into multiple groups.

Group 1. Focus on service to unserved areas that can be built expeditiously and are tied to projects the CPUC or federal government has, or is considering for, last mile service.

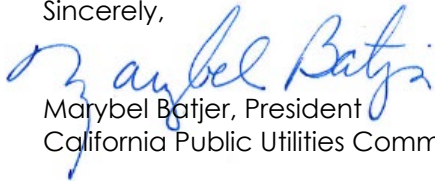
Group 2. Focus on service to unserved areas that can be built expeditiously, which is in coordination with Caltrans.

Group 3. Focus on service to unserved areas that have a great need or are Opportunity Areas which were demonstrated by public comment.

A table of these projects, by name and group, is included in this letter. The projects are presented by number, in order of northern California to southern California. The variety of projects open the opportunity for you to test alternative deployment approaches.

These initial projects represent a first step for the SB 156 staff report on middle mile locations from the CPUC. The CPUC looks forward to providing an updated middle-mile locations map, which will be posted by CPUC on or before December 31, 2021.

Sincerely,



Marybel Batjer, President
California Public Utilities Commission

Encl. table of locations

cc:

Director Toks Omishakin, Caltrans
Secretary David S. Kim, California State Transportation Agency
Secretary Yolanda Richardson, Government Operations Agency

Initial Project Number	Initial Project Description	Group 1	Group 2	Group 3
Project 01	Siskiyou Area: Siskiyou County, State Route 3 communities from Yreka to Callahan	X	X	X
Project 02	Plumas Area: Tehama, Lassen and Plumas counties from Red Bluff to Johnstonville along Hwys 36 / 89	X Hwy 36	X Hwy 89	
Project 03	Lake County Area: Lake and Mendocino counties, including Laughlin, Upper Lake, Robinson Rancheria, and Kelseyville	X		
Project 04	Colusa Area: Colusa County including Colusa, Williams and Arbuckle	X		
Project 05	Alpine County: Alpine County, Hwy 88 Communities from Kirkwood to Mesa Vista		X	
Project 06	Amador County: Hwy 88 Communities from Jackson Valley to Sutter Hill and Jackson		X	
Project 07	Calaveras County: Hwy 4 including Copperopolis and La Honda Park		X	
Project 08	Oakland: Oakland Flats Neighborhoods			X Hwy185 Hwy 580 Hwy 880 Hwy 980
Project 09	Central Coast: Southern Santa Clara Valley to Hollister and Santa Cruz to Los Gatos			X
Project 10	West Fresno: Fresno County, including South dos Palos, Kerman, Mendota, Firebaugh, Tranquility and San Joaquin			X
Project 11	Inyo County: Hwy 190 including Death Valley Junction and Greenwater		X	
Project 12	Kern County: Kern Canyon and Hwy 178 from Bakersfield to Lake Isabella and Weldon	X		
Project 13	Kern/San Luis Obispo Area: Kern, San Luis Obispo and Santa Barbara counties, Taft to New Cuyama along Hwy 166 and 33	X	X	
Project 14	San Bernardino County: Hwy 247, High Desert, Barstow to Thorn		X	

Initial Project Number	Initial Project Description	Group 1	Group 2	Group 3
Project 15	Los Angeles and South Los Angeles: South Los Angeles communities including South Gate, Lynwood, Paramount Bell Flower, Compton and Lakewood		X Hwy 91 Hwy 105 Hwy 710	X Hwy 110
Project 16	Orange County: Inland Orange County communities including Buena Park, Orange, Fullerton, Garden Grove and Westminster		X	
Project 17	Coachella Valley: Riverside County, Palm Springs to Indio and Coachella			X
Project 18	Riverside/San Diego Area: San Diego and Riverside counties including the Cahuilla Reservation, Julian and Santee	X Hwy 171	X	X Hwy 67 Hwy 76 Hwy 78 Hwy 79