



**Response to California Public Utilities Commission
RFP for California Advanced Services Fund (CASF)**

Response from Cox Communications California, LLC.
On behalf of its subsidiary Cox California Telcom, LLC

June 1, 2023

Application Item #1 - Project Summary
Cox Communications

Project Summary

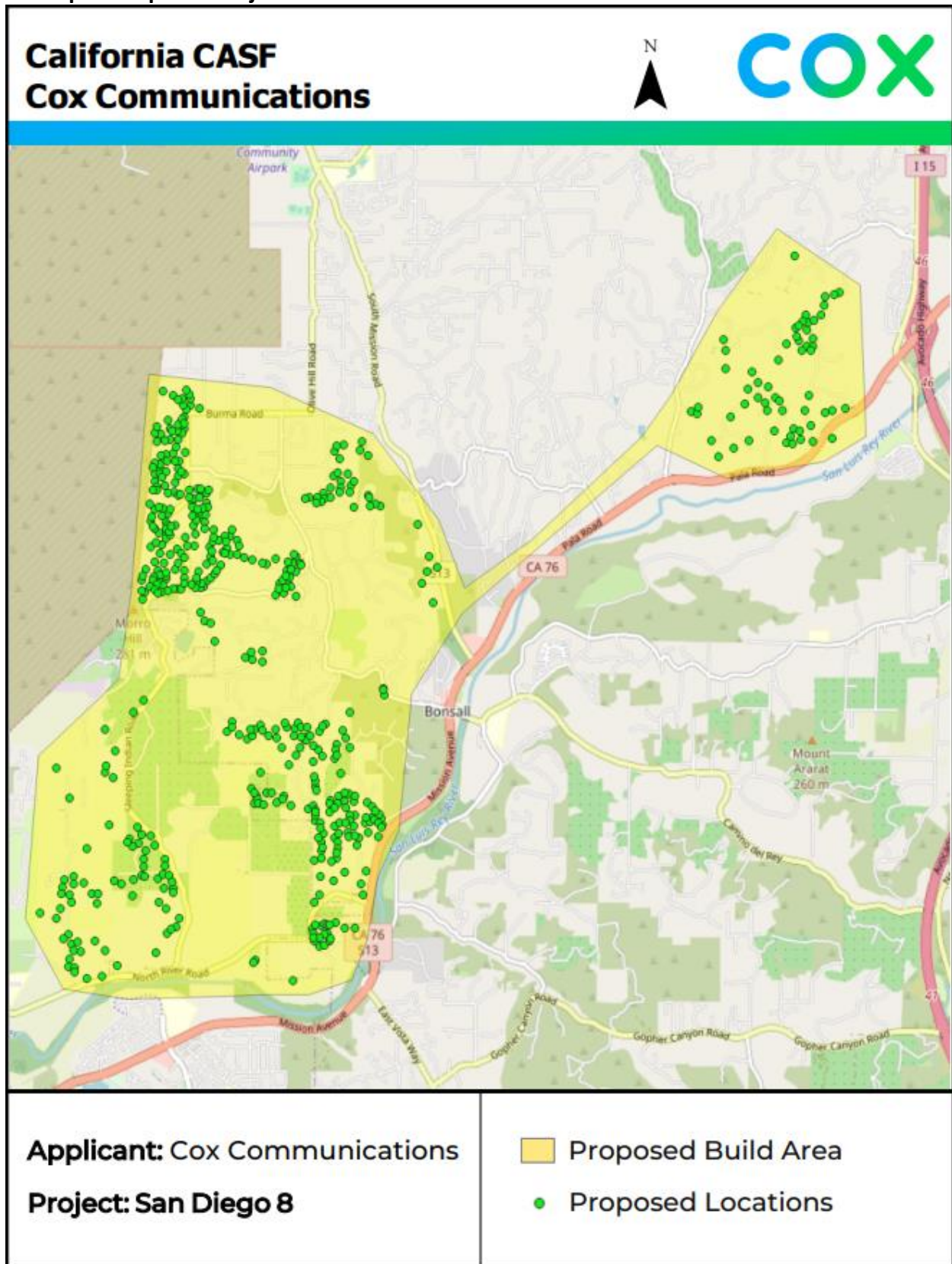
i. Organization Information:

| | |
|---------------------|---|
| Applicant Name: | Cox Communications California, LLC. On behalf of its subsidiary Cox California Telecom, LLC |
| CPCN: | U-5684 |
| Application Number: | San Diego 8 |
| Contact Person: | Name: Ken Burgess Title: Contract Management Sr. Manager Primary Phone: +1 (770) 855-3687 Primary Email: Ken.burgess@cox.com |

ii. Project Information:

| | |
|--|-----------------------------------|
| Project Title: | San Diego 8 |
| Project Location: | Fallbrook, Bonsall, and Oceanside |
| Project Type: | Last Mile |
| Amount of Funding Requested: | \$24,455,808 |
| Number of Serviceable Locations: | 539 |
| Number of Servicable Locations with No Internet: | 250 |

iii. Map of Proposed Project Area:



iv. Project Summary

Cox Communications (Cox) appreciates your consideration as a potential partner for the CASF Broadband Infrastructure project. The opportunity offers a lasting partnership that brings to bear Cox's network expansion plans and enables Cox to expand our current fiber-optic network. The partnership allows us to increase broadband service access to residential and commercial communities while adding additional and strengthened network resiliency to the benefit of California's communities.

The communities we aim to serve are located in San Diego County. The project area currently has 100/20 mbps speeds currently available and has an average household income of \$127,502. The proposed project, if awarded, would expand our current network to deploy fiber broadband internet to the unserved serviceable locations in and around the cities of Fallbrook, Bonsall, and Oceanside. To complete fiber buildout to all serviceable locations in the community, 75 miles of new fiber to 488 residential locations, 48 businesses and 3 anchor institutions will be built and connected to Cox existing fiber network.

The primary infrastructure utilized in our construction projects comprises aerial and underground fiber components within a standard Passive Optical Network (PON) architecture. This includes associated structures such as vaults, cabinets, cases/enclosures, and additional equipment. Based on our estimations for the proposed build areas, the anticipated distribution between aerial and underground installations is projected to be 80% aerial and 20% underground. However, considering potential challenges such as pole failures and other obstructions that may necessitate trenching, we have adjusted our actual build projection to 60% aerial and 40% underground to account for such circumstances.

Cox plans to use our contracted third-party construction labor to perform the fiber installation. This includes labor and materials (i.e. new aerial and underground fiber, premium underground fiber, pole make-ready and splicing) totaling \$5,668,900.51 in costs. Permitting costs for this project are estimated to be \$2,856,336.98; these permits include highway underground, highway pole, railroad and pole permits. In-house labor will be used for oversight of the project with an estimated cost of \$16,055,934.92. The hardware needed for this build includes an OCML (Fiber Distribution Hub Cabinet) an MDM (Mobile Device Management) Enclosure and an OLM XGS PON (Optical Network Terminal) with a cost of \$3,318,380.78.

Aerial fiber costs are composite and can include:

- Install strand including make ready (if new)
- Re-work make ready including re-tension (if existing)
- Install stand off (if required)
- Install anchors
- Install guy guards
- Install grounds, bonds & molding on verticals
- Banding poles, if applicable

- Double lash of fiber(s) per design
- Installation of storage/snowshoes
- Installation of riser guard/boots
- Wreck out of abandoned facilities

Underground fiber costs are composite and can include:

- White lining / private locates
- Trench, bore, saw or backhoe excavation install conduits, per design
- Potholes (spot utility, vac or repair conduit)
- Install conduit tape/rope (empty conduits)
- Installation of vaults, peds or drop enclosures (includes grounding)
- Pull fiber cable(s), per design
- Seal conduits
- Haul, dispose and fill aggregate
- R&R of concrete / asphalt
- Milling
- Temporary plates
- Wreck out of abandoned facilities

Fiber splice costs are composite and can include:

- Installation of cases/OTCs , per design
- Installation of cabinets, per design
- Installation of OLMs , per design
- All fiber splicing associated with enclosures, per design
- Completion of grounding
- Light level verification at all ports, per design
- Troubleshooting hours

Broadband Map Statement of Dispute:

Cox has conducted a thorough assessment and gathered extensive data on broadband coverage within California. Based on our findings, we are disputing the CASF Broadband Map and strongly believe that the current depiction of served status is inaccurate and overrepresents unserved locations in the state. An accurate representation of broadband coverage is essential for informed decision-making, effective resource allocation, and the equitable distribution of broadband services throughout the state. We welcome the opportunity to collaborate with the Commission to share our insights to support the improvement of Broadband Map accuracy.

California Environmental Act (CEQA):

Cox has completed a comprehensive assessment to evaluate the potential environmental impacts associated with the proposed development and to ensure sustainable practices, minimize adverse effects, and promote the preservation and enhancement of the natural environment.

The environmental review has been conducted in accordance with established industry standards, applicable regulations, and best practices. A full report has been attached to the application. Based on the report findings for the project areas, Cox Communications does not anticipate a CEQA review.

v. Project Technology and Speeds

Fiber to the Home networks (FTTH) offer the best solutions to equip the residents of California with reliable broadband now and scalability in the future; therefore, Cox is proposing to build a FTTH network which offers symmetrical multi-gigabit data speeds to each customer. FTTH networks leverage a point-to-multipoint protocol called PON (Passive Optical Network) for distribution via passive optical splitters. There are multiple types of PON; since 2014 Cox has been deploying GPON (Gigabit PON) exclusively for residential services, and in Q1 of 2021 we began to introduce XGSPON (10 Gigabit Symmetrical PON) enabling greater speeds and capacity.

We offer a variety of broadband speed tiers, from up to 100mbps to multi-gigabit to meet our customers' needs. This project will be resilient and sustainable in the long term, and service areas will be managed and maintained through the technical staff we have in the market. Cox's network round trip latency is not more than 100ms to the 95th percentile. In addition to residential connectivity, Cox offers commercial services to businesses, educational institutions and government entities at speeds up to 100 Gbps based on individual needs. Furthermore, we're able to offer wholesale ethernet transport access to other ISPs and wholesale accounts through our commercial services organization.

The project proposal in this application will benefit from multibillion-dollar infrastructure investments Cox is making over the next several years to enhance our fiber-based network that will power the next generation of internet users. This fiber-to-the-home project will have the ability to deliver multi-gigabit symmetrical speeds to both residential and business customers to support a growing host of high bandwidth applications. Our infrastructure will establish connectivity with an already existing backbone network.

In the last 10 years, Cox has invested more than \$19 billion in network and product upgrades to deliver some of the most powerful high-speed internet, TV, phone, and home security and

automation services, as well as a growing suite of business offerings such as its cloud and edge services. These strategic investments paid off significantly as Cox’s network continued to meet its customers’ needs despite the unprecedented surges in internet traffic seen during the COVID-19 pandemic, some which continue today with ongoing work-from-home, learn-from-home, and telemedicine trends.

vii. Estimated Construction Timeline

| Name | Miles | Month 0 | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 | Month 7 | Month 8 | Month 9 | Month 10 | Month 11 | Month 12 | Month 13 | Month 14 | Month 15 | Month 16 | Month 17 | Month 18 | Month 19 | Month 20 | Month 21 | Month 22 | Month 23 | Month 24 | |
|---------|-------|------------------|---------|-------------|---------|----------------|---------|----------------|---------|----------------|-------------------------|----------|-------------------------|----------|-------------------------|----------|----------|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| MET | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase 1 | TBD | Contract Awarded | MoR | Site Survey | FD | Permit x 5 mos | | | | | Construction x 6 months | | | | | | Install | | | | | | | | | | |
| Phase 2 | TBD | Contract Awarded | | | MoR | Site Survey | FD | Permit x 5 mos | | | | | Construction x 6 months | | | | Install | | | | | | | | | | |
| Phase 3 | TBD | Contract Awarded | | | | | MoR | Site Survey | FD | Permit x 5 mos | | | | | Construction x 6 months | | | | Install | | | | | | | | |
| Phase 4 | TBD | Contract Awarded | | | | | | | | MoR | Site Survey | FD | Permit x 5 mos | | | | | Construction x 6 months | | | | Install | | | | | |

| Legend: | |
|---------|-------------------------------------|
| MoR | Mobilization of Resources |
| SS | Walk Out / Site Survey |
| FD | Final Design |
| Permit | Permitting - HWY, RR, Power, Pole |
| Constr | Physical Construction - Aerial & UG |
| Install | Address Release & Customer Turn up |

vii. Affordability

Cox Communications appreciates the opportunity to show our commitment to bridge the digital divide in the State of California. We applaud California’s dedication to increasing the availability and effectiveness of broadband internet throughout the state, particularly for un- and underserved residents, businesses, and their communities, as the state works towards a fully connected citizenry, both economically and socially.

Cox chooses to approach digital equity holistically, focusing on access, affordability, and digital literacy. This is how we’re making a difference:

- Connect2Compete:** Established more than a decade ago in 2012, the Connect2Compete Internet package from Cox opens a world of opportunity for families by providing 100Mbps/100Mbps home internet for only \$9.95/mo. The package includes a wifi modem and installation at no charge, making it economical to stay connected. Connect2Compete is available to households with at least one K–12 student who currently participate in one of the following programs: (1) National School Lunch, (2) SNAP, (3) TANF, (4) Head Start, (5) WIC, (6) Low Income Home Energy Assistance Program (LIHEAP) and (7) Public Housing.
- ConnectAssist:** Cox has enriched its affordability portfolio by expanding its low-cost internet offerings to include ConnectAssist. The new offering is one of Cox’s many efforts to create digital equity and is designed for low-income households not eligible for the K-12 focused Connect2Compete, such as seniors, college students, and single

adults. The ConnectAssist internet package provides customers with internet access and a modem rental for \$30/month plus taxes and provides speeds up to 100Mbps download/100 Mbps upload. Eligible customers can sign up at cox.com/connectassist and are not required to go through credit checks, commit to term agreements, or pay deposits. Other key program features include (1) EasyConnect self- installation or \$20 professional installation; and (2) access to Wifi Hotspots, Cox Security Suite Plus and Digital Academy.

3. **Affordable Connectivity Program (ACP):** Cox is a participant in the FCC's Affordable Connectivity Program. Eligible households with active Cox Internet service enrolled in the ACP will receive up to \$30 off their monthly bill based on their current internet service and equipment rental, or up to \$75 if customers live on a tribal land while the program is in effect.
4. **The Digital Academy** is the digital literacy arm of Cox's affordability program designed to connect families, educators, community leaders and students with free access to tips, educational videos and tutorials to ensure safe and effective online behavior through a partnership with the American Library Association. Resources are available in English and Spanish online at **Cox Digital Academy | Digital Literacy Training** (<https://www.cox.com/residential/internet/connect2compete/digitalacademy.html>). This platform is available to all at no cost and is continuously updated with fresh and relevant information. In addition, the Digital Academy provides access to MyFuture, a digital platform from the Boys and Girls Clubs of America that empowers children and teens to learn new skills, share accomplishments, and earn recognition and rewards via gamification in a safe and fun online environment.
5. **PCs for People:** Through our association with PCs for People, eligible families now have access to quality equipment that's affordable. Desktop computers start at \$75 and laptops start at \$100. Families that qualify for ACP may also apply for a one-time equipment credit bringing the total out of pocket cost for equipment to \$0 when purchased through PCs for People.

To further support adoption, we understand that it is important to develop grassroots connections and relationships with other organizations committed to bridging the digital divide in addition to traditional marketing and sales strategies. Over the past few years, Cox has established more than 170 national and local partnerships to collaborate on this initiative. Our vital national partnerships include Connect Home USA, Everyone On, American Library Association, Common Sense Media, Boys and Girls Clubs of America, and Big Brothers/Big Sisters. In addition, Cox continually pursues new partnerships and has recently onboarded several new national organizations, supported by an online portal designed to recruit new partners. The program provides a marketing kit for non-profit partners who serve the targeted low-income segment to promote our programs to eligible households. This effort brings private and public sector business leaders together to work on solutions to improve digital inclusion.