

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Proceeding to
Consider Rules to Implement the Broadband,
Equity, Access, and Deployment Program

Rulemaking 23-02-016

**COMMENTS OF CALIFORNIA ALLIANCE FOR DIGITAL EQUITY (CADE) ON THE
FINAL INITIAL DRAFT FIVE-YEAR ACTION PLAN BROADBAND, EQUITY,
ACCESS, AND DEPLOYMENT (BEAD) PROGRAM**

Arnold Sowell, Jr.
Executive Director, NextGen Policy

Co-Convenor, California Alliance for
Digital Equity (CADE)
(916) 761-4985
CADE@nextgenpolicy.org

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INTRODUCTION

In accordance with Rule 6.2 of the California Public Utilities Commission (“CPUC” or “Commission”), the California Alliance for Digital Equity (“CADE”) respectfully submits opening comments to *Administrative Law Judge’s Ruling Issuing Draft Five-Year Plan and Seeking Comments* filed on July 17, 2023. CADE submitted a formal motion for party status on July 20, 2023.

The California Alliance for Digital Equity (CADE) is a dedicated group of local and statewide advocates focused on all forms of digital equity, from device acquisition to broadband access to digital literacy. Our partner organizations have been closely engaged with California's planning process for Broadband Equity, Access, and Deployment (BEAD) Program funding through proceedings, workshops, and relevant legislative advocacy.

We offer the following opening comments inspired by on-the-ground observation and outreach in the communities we represent across the state, in rural, suburban, and urban communities. These comments seek to improve the Final Initial Draft Five-Year Action Plan (from here on referred to as the “Draft Plan”) in alignment with statute, NOFO and guidance, as well as highlight gaps in the representation of public engagement and communities that will be most impacted by the implementation of this funding.

QUESTION I. Is the draft Five-Year Action Plan consistent with statute, the NOFO, and other NTIA guidance?

The BEAD NOFO specifies a list of thirteen items that, “at a minimum,” the Five Year Action Plan must encompass, including item number 10, which specifies¹:

¹ Page 26, NOTICE OF FUNDING OPPORTUNITY, BROADBAND EQUITY, ACCESS, AND DEPLOYMENT PROGRAM (hereafter, “NOFO”), Section IV.B.3.b, accessed at <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf> on August 1, 2023

Provide a comprehensive, high-level plan for providing reliable, affordable, high-speed internet service throughout the Eligible Entity, including:

- a. The estimated timeline and cost for universal service,*
- b. The planned utilization of federal, Eligible Entity, and local funding sources,*
- c. Prioritization of areas for federal support,*
- d. Any consideration afforded to the use of public-private partnerships or cooperatives in addressing the needs of the Eligible Entity’s residents,*
- e. Strategies to address affordability issues, including but not limited to strategies to increase enrollment in the Affordable Connectivity Program by eligible households; and*
- f. Strategies to ensure an available and highly skilled workforce (including by subgrantees, contractors, and subcontractors) to minimize project disruptions, including any plans to ensure strong labor standards and protections, such as those listed in Section IV.C.1.e; and plans to attract, retain, or transition the skilled workforce needed to achieve the plan’s goals, including describing the involvement and partnerships of sub-grantees, contractors, and sub-contractors with existing inhouse skills training programs, unions and worker organizations; community colleges and public school districts; supportive services providers; Registered Apprenticeship programs and other labor-management training programs, or other quality workforce training providers.*

The Draft Plan could more thoroughly meet several of these requirements.:

1. The Draft Plan relies exclusively on a single report, the “California Broadband Investment Model - Last Mile Funding Analysis: Process Overview and Methods,” completed in April 2023 by CostQuest Associates to estimate the cost of universal service. While this approach may technically meet the NOFO requirement, it could and should be significantly improved in several key elements, detailed below. At a macro level, deficiencies in the CostQuest model may cause the State to overestimate the overall cost to serve unserved locations, thereby leading planning agencies to perceive fewer resources for underserved areas, anchor institutions, and other secondary BEAD objectives, while simultaneously underestimating costs in extremely high cost areas for which fiber to the premises and undergrounding are required for fire hardening, and where the State’s Middle Mile network will not come any closer than dozens of miles.

- a. The CostQuest report models only a fiber-to-the-premises network to all unserved locations, with no alternative modeling incorporating other allowable technologies that meet minimum standards where fiber-to-the-premises is geographically or economically not feasible and is not necessary for fire hardening. Thus, the model likely overstates the full cost of connecting every Californian to fast and reliable internet.
- b. The CostQuest “estimate assumes no re-use of existing infrastructure (e.g. poles, conduit, manholes, etc.) in the total investment.”² This assumption also unnecessarily increases the estimate, potentially dramatically, without a basis in the likely reality of deployment which will almost certainly leverage existing assets. Given that much of this existing infrastructure is owned by local agencies and in light of the collaborative work the Commission highlights with respect to local permitting,³ analysis of how re-use of existing infrastructure could reduce the cost to get to universal service should be possible. Again, this assumption when applied universally also likely distorts the State’s understanding of the true cost of deployment in areas where reuse of infrastructure is not an option, for example in Alpine County, whose 1,200 residents are extremely isolated and will not benefit from either the State’s Middle Mile Broadband Initiative nor other existing infrastructure.
- c. As of June 1, 2023, there are more than 70 current California Advanced Services Fund (CASF) project proposals across a range of geographies and topographies

² Five Year Action Plan, Final Initial Draft, Pg. 87

³ Ibid, Pg. 64

and put forward by a range of providers, from cooperatives to national incumbents to Incumbent Local Exchange Carrier (ILECs) . Most propose costs to expand service to the unserved well below those in the CostQuest model. All propose re-use of existing infrastructure such as poles, conduit, etc. The model should be pressure tested against reality on the ground, and updated to reflect it. Some examples that may prove instructive:

- i. Anza Electric Cooperative applied for a grant to serve 50 unserved locations (including 28 “priority eligible”) in a remote area with a fiber-to-the-premises network leveraging existing power poles in rural San Diego County.⁴ This area would almost certainly qualify it in the highest cost tier of projects in the CostQuest model, yet the proposal envisions a total cost of \$13,768 per location served - well below that described for such high cost projects in the CostQuest analysis.⁵ The highest median household income for block groups in the proposed project area is \$58,864.00.

⁴ CASF Infrastructure Grant Project Summary: Connect Anza Phase III, accessed at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-infrastructure-and-market-analysis/infrastructure-project-summaries-and-maps/2023-project-summaries-and-maps/project-summaries/project-summary_anza-electric_connect-anza-phase-3.pdf on August 1, 2023

⁵ California Broadband Investment Model - Last Mile Funding Analysis: Process Overview and Methods, accessed at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/broadband-implementation-for-california/ffa-webpages/ca-broadband-investment-model_04212023.pdf on August 2, 2023. Noting since that the publicly available information in the model is not specific enough to apply directly to the project areas included in the CA Broadband Interactive Map or Project Summaries, the comparisons here must rely on assumptions based on Figure 6 on page 15 of the report. The Connect Anza Phase III project falls on the far right side of the table, with location density well under 50 locations per square mile.

- ii. AT&T's proposed project in Los Altos Hills in Santa Clara County⁶ has a \$219,898 total project cost for 17 miles of fiber, leveraging existing assets including power poles, to serve 53 locations for a cost of \$4,149 per location, again in an area that is well below 50 locations per square mile. The highest median household income for block groups in the proposed project area is \$250,000.00 (the lowest is \$193,929.00 - this a project proposal to deploy public funds to benefit some of the wealthiest Californians.)
- iii. Comcast's proposed project⁷ in the San Joaquin Valley will build 81.3 total miles of broadband infrastructure - including last-mile and middle mile transport facilities to connect the projects to an existing network - for a total project cost of \$25,152,534 to serve 2,667 unserved locations plus 68 served locations at \$8,884 per location. Again, this project reuses existing infrastructure. The median household income for this project area ranges from \$24,000 - \$79,125 - below the low-income threshold.
- iv. The Kwikbit Internet project proposal⁸ to serve 873 unserved mobile homes in twelve mobile home parks in San Joaquin, Orange, Los Angeles,

⁶ State of California CASF Broadband Infrastructure Grant Application, AT&T accessed at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-infrastructure-and-market-analysis/infrastructure-project-summaries-and-maps/2023-project-summaries-and-maps/project-summaries/project-summary_att_los-altos-hills.pdf on August 2, 2023

⁷ CASF IGA Application of Comcast Cable Communications Management, LLC (CCCM) accessed at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-infrastructure-and-market-analysis/infrastructure-project-summaries-and-maps/2023-project-summaries-and-maps/project-summaries/project-summary_cccm_tulare.pdf on August 2, 2023

⁸ California Advanced Services Fund Broadband Infrastructure Grant Account Application accessed at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-infrastructure-and-market-analysis/infrastructure-project-summaries-and-maps/2023-project-summaries-and-maps/project-summaries/project-summary-kwikbit_mhp1.pdf on August 2, 2023

Stanislaus, Riverside, San Diego, Sacramento, Santa Barbara, Santa Clara, and Sonoma Counties with fixed wireless technology. The proposal includes reuse of existing power poles and proposes a per location cost of \$3,240. The average median household income across the census blocks Kwikbit proposes to serve is \$75,670.

- v. Cruzio Media’s Equal Access Summits to the Sea (EAS2C)⁹ proposed project area contains rugged or difficult terrain (e.g., mountains, desert, national or state forest), is within an extreme or elevated fire threat area as defined by the CPUC Fire-Threat Map, and proposes to bring multi-gigabit service with affordability commitments and open-access infrastructure to 2,565 unserved locations in San Mateo, Santa Cruz, Santa Clara and Monterey Counties for a total project cost of \$10,982,500 or \$4,282 per location. The project proposes re-use of existing infrastructure such as power poles and leverages fixed wireless technology, noting “[a]lthough fiber is preferable in many settings, fixed wireless is often the only practical solution in the coastal and mountainous regions of EAS2C.”
- vi. The rural counties’ Golden State Connect Authority proposed project areas, while not formalized in a CASF grant proposal as yet, has documented actual costs of deployment in its varied regions, including several in rural high fire areas where undergrounding is necessary (so

⁹ Equal Access Summits to the Sea Application to the California Advanced Services Fund Infrastructure Grant Account 2023 Proposal Summary accessed at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-infrastructure-and-market-analysis/infrastructure-project-summaries-and-maps/2023-project-summaries-and-maps/project-summaries/project-summary_cruzio-media_eas2c.pdf on August 2, 2023

existing power poles are not helpful) and there is no existing conduit available for reuse. The highest per location cost estimate in the Golden State Connect Authority regions is over \$3 million, while the lowest is under \$2,400. The city of Los Angeles' Bureau of Street Lighting has a detailed costing for a "penultimate" mile open-access network that is about one-third the cost per mile as that modeled by the State. This set of project-specific cost estimates is far more instructive than a generic model, and should at minimum be used to inform any universally applied model the State may opt to use. None of this information was leveraged in the CostQuest model.

2. The Draft Plan does not directly address prioritization of areas for federal support as required 10c in Section IV.B.3.b of the NOFO.
3. The Draft Plan does not reference any “consideration afforded to the use of public-private partnerships or cooperatives in addressing the needs of the Eligible Entity’s residents,” aside from listing the two cooperatives doing adoption-related work in Table 7, broadband adoption assets. This even though one of those cooperatives, Anza Electric Cooperative (AEC), is an internet service provider that has received CASF Infrastructure Grant Account funds to deploy infrastructure to serve unserved locations and has an active application for more of the same. Moreover, a recent CalAdvocates report on Broadband Pricing Trends noted that, “Anza Electric Cooperative, a member-owned not-for-profit organization, had the lowest average monthly recurring price [for broadband] in the state; this finding is in keeping with current research that shows that not-for-profit municipal networks offer lower priced and higher-speed alternatives than privately held

providers.”¹⁰ The omission of considerations for actively engaging cooperatives, such as AEC, not only neglects a NOFO requirement, but does a disservice to the goal of affordable universal service.

- a. Cooperatives should be included in the recitation of providers in the first half of the opening sentence of paragraph four of section 4.4, Industry participation, so it reads, “That said, the CPUC also recognizes the ability of municipal providers, cooperatives, and smaller ISPs to build capacity...”
4. With respect to affordability, the NTIA list of requirements for the Five-Year Plan includes, “strategies to address affordability issues, including *but not limited to strategies to increase enrollment in the Affordable Connectivity Program by eligible households*”¹¹ (*emphasis added*). Additionally, the NOFO states that, “[The Program] also requires all projects to provide a low-cost option to eligible subscribers, requires all states to have plans to address middle-class affordability, and further prioritizes proposals that improve affordability to ensure that networks built using taxpayer dollars are accessible to all Americans.”¹² The Draft Plan addresses affordability almost exclusively with respect to driving enrollment in the Affordable Connectivity Program (ACP), with all other factors driving affordability minimized or excluded entirely and no reference to the ACP's uncertain future (credible estimates point to the program running out of funds

¹⁰ Page 11, Broadband Pricing Trends in California, Implications of broadband pricing in achieving universal access to fixed broadband, Public Advocates Office, California Public Utilities Commission accessed at <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/reports/230510-cal-advocates-broadband-pricing-trends-in-ca.pdf> on August 2, 2023.

¹¹ Page 26, NOFO, Section IV.B.3.b, req 10e

¹² Page 7, NOFO.

in mid-2024 at the latest¹³, and there is as yet no reliable indication that Congress intends to allocate additional funding despite broad advocacy in its favor.). The Draft Plan’s reference to middle-class affordability is limited to the recitation of questions included in the BEAD proceeding scoping memo, and the Draft Plan neglects to address how the State will more broadly address affordability to ensure the expenditure of taxpayer dollars results in public benefit. CADE offers the following recommendations to close these gaps:

- a. The Commission engaged an extensive Affordability Rulemaking beginning in 2018 inclusive of communications services - telephone and broadband at 25/3.¹⁴ Per Decision 20-07-032,¹⁵ CPUC staff issued annual affordability reports in 2019¹⁶ and 2020¹⁷ identifying Areas of Affordability Concern (AAC) and documenting an Affordability Ratio for communications services across the state.

The Staff Proposal on Affordability Metrics adopted in D.20-07-032¹⁸ notes, “in years past, the absence of any quantifiable affordability benchmarks made it difficult for the CPUC to measure the effectiveness of its public purpose programs in achieving affordability. With the affordability framework, however,

¹³ For example, Common Sense Media projection available at <https://drive.google.com/file/d/1zjL7RGRzqepT9nEij7tcpc7ePWQ7lrX/view> and ILSR ACP Dashboard available at <https://acpdashboard.com>, ,

¹⁴ CPUC Affordability Rulemaking accessed at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability> on August 2, 2023.

¹⁵ D.20-07-032 DECISION ADOPTING METRICS AND METHODOLOGIES FOR ASSESSING THE RELATIVE AFFORDABILITY OF UTILITY SERVICE accessed at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M344/K049/344049206.PDF> on August 2, 2023

¹⁶ 2019 Annual Affordability Refresh accessed at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability/2019-annual-affordability-report> on August 2, 2023

¹⁷ 2020 Annual Affordability Refresh accessed at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability/2020-annual-affordability-report> on August 2, 2023

¹⁸ add

the CPUC now has quantifiable metrics to assess both current and future projects and initiatives of these public purpose programs to ensure they are addressing their intent to bridge the Digital Divide. Specifically, the affordability framework provides an accessibility benchmark of 25/3 broadband service, as well as a quantifiable AR metric to measure the ability of the ratepayers, especially those in low-income households, to pay for essential communications services.”

Subsequently, Decision 22-08-023 Implementing Affordability Metrics specified the following:

*This decision’s affordability metrics should be considered in both the CASF and Broadband for All (R.20-09-001) proceedings. In the CASF proceeding, the affordability metrics may be informative and useful for better identifying borderline or “donut hole” areas that are not considered unserved/underserved but where affordability poses a challenge to accessing available broadband service. In the Broadband for All proceeding, new rules specify how the grant applicants may meet the federal condition that requires that the project be affordable for the community. **These new rules allow for variation and updates; the affordability metrics can be an available tool the Commission may employ to assess affordability.***

As recommended by parties, the metrics may be used in communications proceedings generally for benchmarking and directional insight into the variety of low-income broadband plans offered by grant recipients. For example, Greenlining recommends examining the AR20 values of communities with high and low adoption rates, to provide insight into the impact of affordability on broadband adoption. TURN suggests that the metrics may be incorporated into the ongoing Broadband For All proceeding, as a factor considered in identifying communities that would benefit from middle-mile deployments.

***Stakeholders and Commission staff are encouraged to implement, display and interpret the affordability metrics from the most recent annual Affordability Report.** The Commission and stakeholders may discretionarily produce variations of the metrics more recent than the annual Affordability Report.*

Stakeholders may, but are not required to, also introduce affordability metrics into any proceeding distributing public funds

through any of the communications public purpose programs administered by the Commission to analyze the impacts of these programs on affordability. [emphases added]

The Draft Plan merely references that the Rulemaking exists and recites its core components, but could benefit from incorporating this extensive body of work more fully:

- i. The Affordability Rulemaking and associated data and reports should be included in Section 3.1, Existing Programs as Section 3.1.6, and Table 1, Current and past activities of the CPUC.
- ii. The 2020 Areas of Affordability Concern and Affordability Ratio for communications should be included in Section 3.3.3 and in the asset inventory for broadband affordability, in addition to the broad description of the Affordability Rulemaking and its core components currently in the Draft Plan.
- iii. The Areas of Affordability Concern and the Affordability Ratio analysis should be updated to the current speed standard of 100/20 through at least December 2022, and this activity to update these analyses with a deadline for completion should be included in section 3.4.3, Needs and gaps assessment for broadband affordability.
- iv. The map in section 3.4.3, Broadband affordability should be the 2020 Areas of Affordability Concern (AAC) map rather than a map of household incomes, since the AAC map is specifically intended to, “highlight areas where the barrier of broadband affordability may be most pronounced.”

- v. The Five-Year Plan should include adding an “Areas of Affordability Concern” layer to the California Broadband Interactive Map, the Federal Funding Account Map, and any subsequent program-specific maps the Commission develops for purposes of deploying BEAD funding to ensure the Commission’s affordability data is incorporated into planning.
- b. The Draft Plan should include the CPUC’s Public Advocate's Office report, “Broadband Pricing Trends in California, Implications of broadband pricing in achieving universal access to fixed broadband¹⁹” published in January 2023 in the broadband affordability assets inventory in Section 3.3.3, as documentation on the prices and pricing trends behind affordability challenges and their implications for the impact of subsidy programs, including ACP.
- c. The Draft Plan should incorporate a more direct commitment to incorporating rules ensuring that networks built with BEAD funds will carry requirements for low-income and middle-income affordability, for the life of the infrastructure, to ensure lasting public benefit from expenditure of taxpayer funds. The plan should reference affordability requirements included in other program rules that may be considered for the State’s Initial Proposal, in addition to noting that those requirements are part of the outstanding rulemaking proceeding with respect to the State’s Initial Proposal. For example:

¹⁹ Broadband Pricing Trends in California, Implications of broadband pricing in achieving universal access to fixed broadband, Public Advocates Office, California Public Utilities Commission accessed at <https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/reports/230510-cal-advocates-broadband-pricing-trends-in-ca.pdf> on August 2, 2023.

- i. D.22-04-055²⁰ adopting rules for the Federal Funding Account includes a scoring rubric that allows for, “up to 10 points for applications that include pricing commitments for 10 years, including Consumer Price Index adjustments;” and “ up to 20 points for applications to include one plan offering speeds of at least 50 Mbps download AND 20 Mbps upload for no more than \$40 per month, including Consumer Price Index adjustments.” Like prices, consumer speed requirements increase over time. Any mechanism for affordable service in the Five-Year Plan, Initial Proposal, or elsewhere should anticipate this growth.
 - ii. D.22-11-023 adopting modified rules for the CASF Infrastructure Grant Account pegs project funding percentages to applicants committing for a guaranteed minimum of five (5) years to offer California LifeLine and/or federal Lifeline service to low income customers; offers a low-income broadband plan for no more than \$15/month co-pay; or participate in the Affordable Connectivity Plan or otherwise provides access to a broad-based affordability program with commensurate benefits.²¹
- d. With respect to middle class affordability, the Draft Plan should include a commitment by the State to preference open-access projects to encourage competition and market-driven affordability protections. The Draft Plan merely notes that there is support for open-access requirements, but that support for those

²⁰ D2204055 DECISION ADOPTING FEDERAL FUNDING ACCOUNT RULES accessed at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M470/K543/470543650.PDF> on August 2, 2023

²¹ CADE notes that Infrastructure Grant Account affordability provisions are quite modest and should serve as the floor, not a model for affordability requirements.

common-sense and straightforward requirements are “counterbalanced” by “other comments,” referencing the objections of the cable industry association in the footnotes. Similarly to low-income affordability, the Draft Plan should reference standing State rules with respect to open-access provisions on networks built with public funds. The Draft Plan should also include reference to the Affordability Rulemaking as a mechanism for tracking the impact of open-access networks on expanded competition and pricing trends.

Consideration of public-private, municipal, and cooperative broadband deployment should also be part of a plan to address middle class affordability, given the preponderance of evidence that such networks offer lower pricing for everyone. This reality was referenced in the Public Advocates Office report on broadband pricing trends in California,²² and studies documenting it have been introduced into several proceedings at the CPUC.²³

Finally, the Draft Plan should address barriers that will prevent fair and open competition for BEAD grants. For example, BEAD’s current letter of credit requirement will discourage participation from small, minority and women-owned ISPs, nonprofits, and municipalities. If NTIA maintains these barriers, California should support the applicants that are marginalized. Fostering a large and diverse pool of applicants will ensure BEAD funds flow to those best equipped to meet the state’s goals for affordability and service quality.

²² At page 11

²³ For example, Talbot, David, Kira Hessekiel, and Danielle Kehl. 2017. Community-Owned Fiber Networks: Value Leaders in America. Berkman Klein Center for Internet & Society Research Publication accessed at <https://dash.harvard.edu/handle/1/34623859>

- e. Given that the Draft Plan leans almost exclusively on subsidy programs to address affordability, the plan’s focus on the ACP could be more effective and better aligned with the State’s goals and vision with the following additions:
 - i. The State should indicate an intention to explore replacing the federal ACP with a state program if and when the ACP is no longer active, and should include in that intention a recitation of policy and regulatory fixes it may pursue to ensure the program has the most public benefit, such as minimum speed standards, carriage value metrics, commitments with respect to upselling and bundling, and matching best available offers.
 - ii. The Plan should explore in Section 4.1 addressing the legislative and regulatory barriers to fully streamlining the ACP (and successor program) enrollment process. For example, California has not yet acted to connect it’s SNAP database to the Universal Service Administration Co. National Verifier²⁴, meaning eligible SNAP enrollees must manually upload documents (which requires reliable upload connectivity and is a needless barrier.).

QUESTION II. Is the draft Five-Year Action Plan consistent with the feedback received at the 17 BEAD Planning Regional-Local Workshops throughout the state and the Tribal Consultations?

We recognize the great undertaking that the 17 BEAD Planning Regional-Local Workshops were for Commission staff and local stakeholders. We applaud this effort to engage a diverse set of stakeholders representing all Californians and our founding partners were glad to

²⁴<https://www.usac.org/about/affordable-connectivity-program/acp-processes/check-consumer-eligibility/database-connections/>

be involved in multiple workshops. Our close engagement with this process is why we were disheartened to find few references to the actual findings of these discussions. Therefore, it is difficult to ascertain whether this Plan is consistent with the feedback received, when this feedback is not specified in its own section, or better yet, incorporated into all relevant sections of the Plan.

We recommend that specific discussion points and acquired information be referenced more frequently in relevant sections of the Plan so that important findings from specific communities or institutions are acknowledged appropriately. For example, in Section 4.8 there is reference to comments made in a proceeding related to digital literacy concerns among underrepresented communities. There was ample discussion within the Education Working Group meetings regarding the importance of, and recommendations for, implementing digital literacy resources for students and families both in the K-12 and higher education spaces. These discussions could have been highlighted here with references to specific entities and localities making these comments.

We recommend this improved transparency for the very reason the workshops were held - to fully incorporate those important discussions in the plans they were meant to influence. The workshop process was an important method for the Department and the Commission to gather information specific to community experiences and we recommend those findings be utilized to their full potential.

QUESTION III. Are there other changes the Commission should make to the draft Five-Year Action Plan prior to submitting it to the NTIA?

1. The Draft Plan references both the California Broadband Interactive Map and the Federal Funding Account Map as existing programs and assets in multiple sections. However, it

neglects to include any consideration of how the State intends to improve those maps in response to evidence they include extensive and consequential inaccuracies. Similarly, the Draft Plan is silent on lessons learned from applying models and funding formulas to these inaccurate maps. While we understand the State's intent may be to address these issues in the Challenge Process to be included in the forthcoming Initial Proposal, we encourage their inclusion in the Five-Year Action Plan as part of the State's strategies to achieve universal access.

It is our understanding that the Commission developed the maps from the federal broadband fabric, then applied a set of analyses and additional data plus the aforementioned CostQuest modeling to arrive at the current California Broadband Interactive Map and the Federal Funding Account Map and corresponding (non-public) subsidy models. The analyses and additional data sets are as yet not public, so their strengths and deficiencies are not clear or open for Party input in this or any other proceeding.

There are at least two ways these maps are cause for alarm, specifically with respect to omissions from the Plan and the likelihood that the State's Initial Proposal will not be situated to ensure BEAD funds are deployed in ways that close the Digital Divide:

- a. The maps, like the Draft Plan, omit multi dwelling units (MDUs.) While vast swathes of California's geography are unconnected, most of California's disconnected *people* are in communities with high concentrations of MDUs. For example, Oakland estimates that at least 25% of disconnected residents live in affordable housing MDUs - these are hundreds of households consistently marked as "served" and thus

ineligible for consideration in the State’s planning for BEAD. The same is true in Los Angeles and in smaller cities across the State.

For example, 345 Columbia Avenue in Los Angeles’ Westlake neighborhood is a 115-unit apartment development, La Villa Mariposa, that serve slow income families. The developer was New Economics for Women in a limited partnership with Corporate Housing Initiatives II. Lenders included the Community Redevelopment Agency of the City of Los Angeles, Affordable Housing Program, and Century Freeway Housing Program – it is part of the City’s affordable housing program. The building is designated as served in both the CA Interactive Broadband Map, with Verizon Fixed Wireless at maximum advertised speeds of 1000/50 and T-Mobile Fixed Wireless at 25/3.

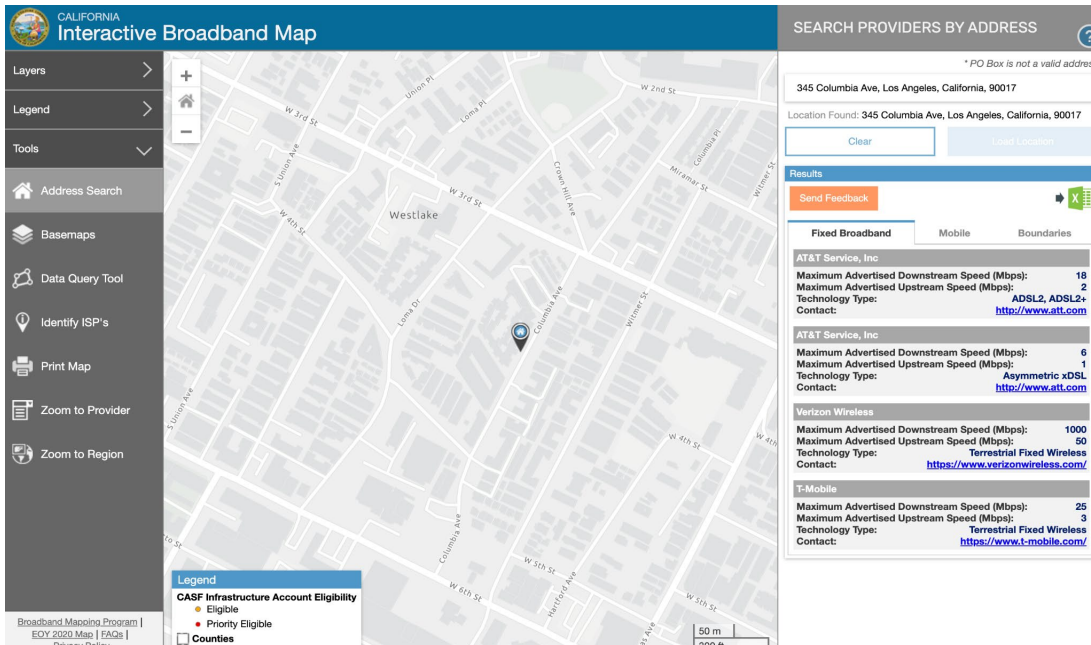


Figure 1. 345 Columbia Ave, Los Angeles CA, 90017 on the CA Broadband Interactive Map

The development is also designated as served on the Federal Funding Account Map - outside any of the hexagons indicating even one mass market unserved location.

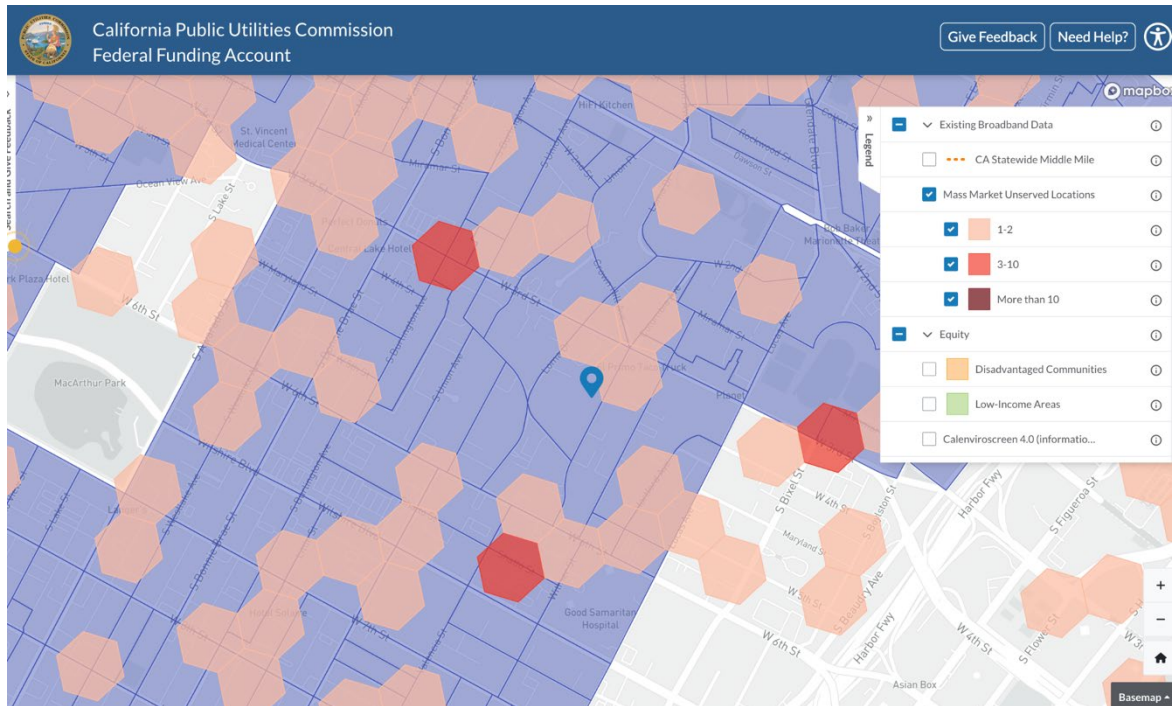


Figure 2. 345 Columbia Ave, Los Angeles CA, 90017 on the Federal Funding Account Map

Yet the development is in a census tract that, according to the NTIA Indicators of Broadband Need Map, is more than 25% disconnected and has median speed tests results under 100/20.

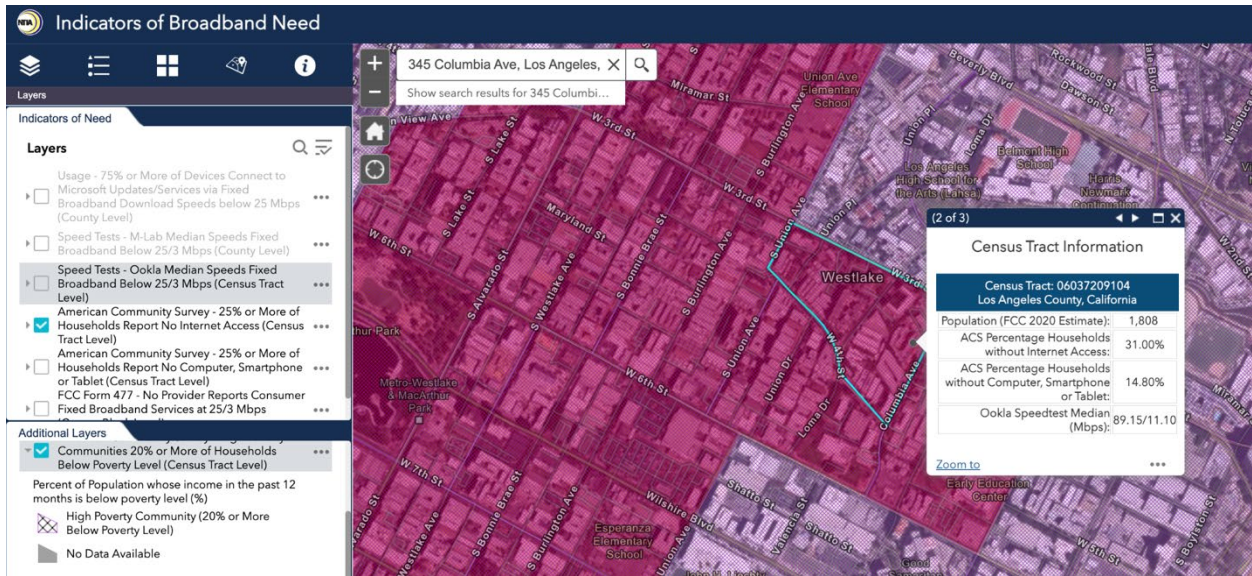


Figure 3. 345 Columbia Ave, Los Angeles CA, 90017 on the NTIA Indicators of Broadband Need Map

Verizon Fixed Wireless, which is alleged to serve the building, considers it a business and not a residence and does not offer service to the units themselves.

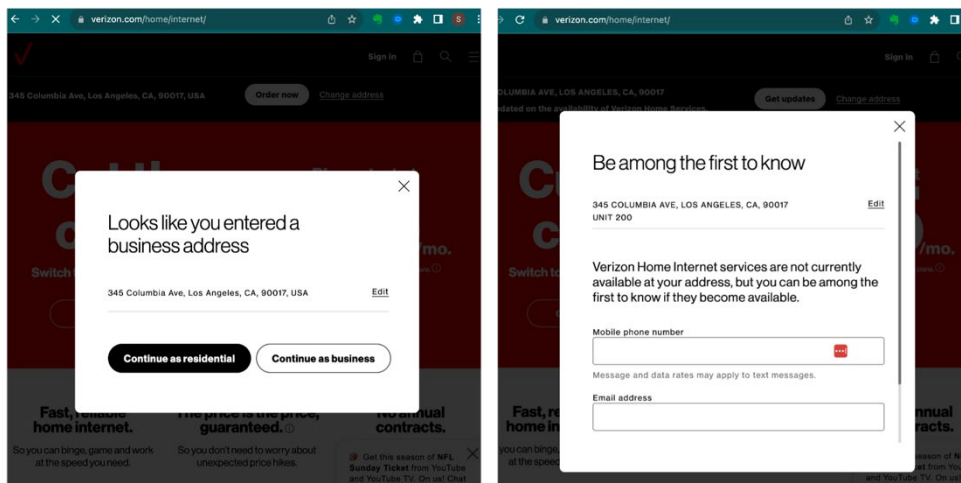


Figure 4. Verizon sales website accessed August 2, 2023

Similarly, 2901 E Olympic Blvd, Los Angeles, California, 90023, an apartment building in Los Angeles' Boyle Heights Neighborhood, is marked as ineligible for funding in both the California Broadband Interactive Map, even

though no provider claims to provide wireline or non-cellular service at minimum speeds, and the Federal Funding Account Map.

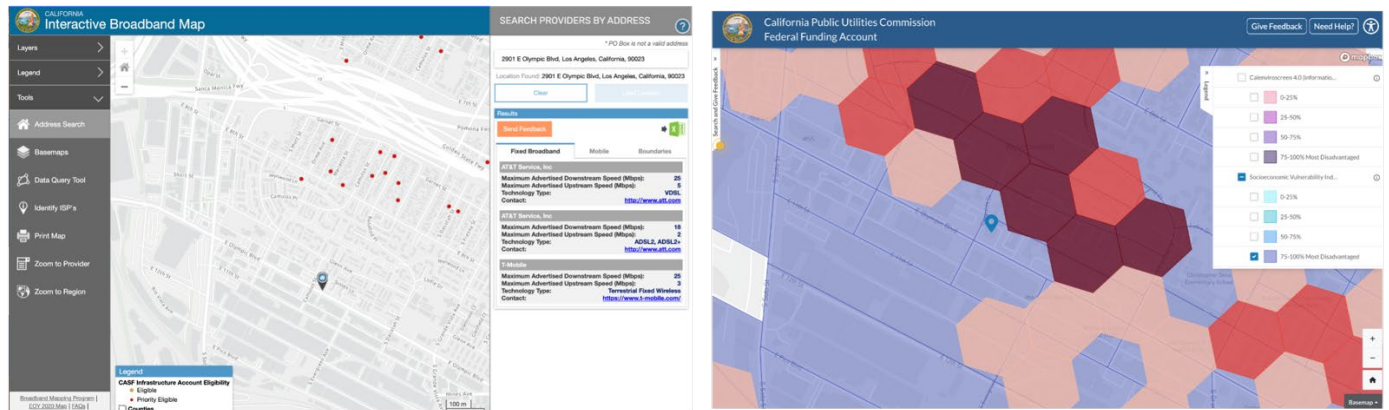


Figure 5. 2901 E Olympic Blvd, Los Angeles, California, 90023 on the CA Interactive Broadband and Federal Funding Account Maps

We recognize that MDUs have been notoriously difficult to map, yet so many households will remain un/underserved if this Draft Plan drives investments; California is home to 295,406 unconnected MDU households.²⁵ The FCC National Broadband Map provides only a starting point for our list of BEAD-eligible locations including MDUs. Since the National Broadband Map identifies multi-family housing developments as one Broadband Serviceable Location (BSL), it does not represent broadband availability of the individual units or households. Without accurate unit-by-unit data, the National Broadband Map significantly undercounts the number of unserved and underserved MDUs and households living in multi-family housing. For example, if an apartment building contains 100 households (i.e. units), the National Broadband Map only identifies this building as a single BSL. There are several scenarios where availability of broadband service at an MDU BSL does not equate to the same availability of broadband to all units

²⁵ Education SuperHighway, [California Apartment Wi-Fi Opportunity](#)

within that location. This results in an overstatement of the availability of broadband service at multi-family housing locations and thus undercounts the true total of California residents who are unserved or underserved. Examples of these scenarios are summarized below:

- Internet Service Provider (ISP) offers a much more substantial service to the building manager's office or commercial space (e.g.: AT&T Fiber) than their inside wiring is capable of delivering to the residential units (e.g.: AT&T DSL).
- ISP has fiber-to-the-curb or building, but has no inside wiring infrastructure to the unit.
- ISP is able to deliver fiber to the building (FTTB) within 10 days, but only offers business-class internet services and does not actually provide residential service.
- Technology at the MDU is not capable of delivering 25/3 or 100/20 across all households simultaneously. Example: provider offers 100/20 DSL service, but needs to use pair-bonding to achieve that speed. In a 100 unit MDU, 100 DSL lines would be bonded into 50 connections, leaving 50 households served and 50 unserved.
- Inside wiring infrastructure is in a state of disrepair and cannot support speeds of 100/20 Mbps. Many public housing and affordable housing MDUs are 30-40+ years old and wiring has not been adequately maintained.

- ISP's equipment is located in a Main Distribution Frame (MDF), Intermediate Distribution Frame (IDF), cabinet, pedestal, node or potentially the central office, and is not capable of delivering 25/3 or 100/20 across all households simultaneously without overbuilding the entire MDU.²⁶
- Non-cellular, licensed Fixed Wireless Access (FWA) providers without existing equipment/service in the MDU could not meet the 10 day installation window. The individual household of an MDU does not have the ability to authorize a Licensed FWA provider to access rooftops, telco rooms, and run new wiring all the way to their unit. This would require an agreement with the building owner and possibly a permit.

We also encourage edits to the Five-Year Action Plan to encourage challenges based on service within MDUs as well as consider a challenge process for including specific MDUs as community anchor institutions, as many, like the La Villa Mariposa development documented above, serve this function.

The maps also include well-served locations as unserved, making it likely that resources will be diverted from project areas that need the public investment to meet minimum connectivity standards to those that demonstrably do not. 4145 Lincoln Avenue in Culver City is included on both the CA Broadband Interactive Map and the Federal Funding Account map as unserved and eligible for funding.

²⁶ MDF and IDF are industry standard designations for racks of networking equipment, or switches, that help distribute the network throughout the property. If outdated they will not handle a high enough capacity to distribute the required bandwidth to each unit regardless of how large the backhaul signal coming into the property.

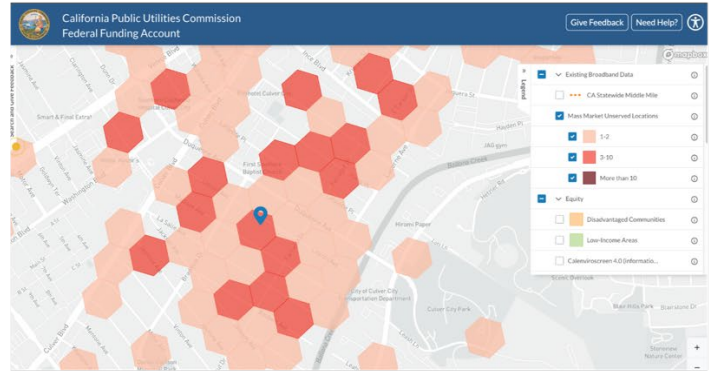
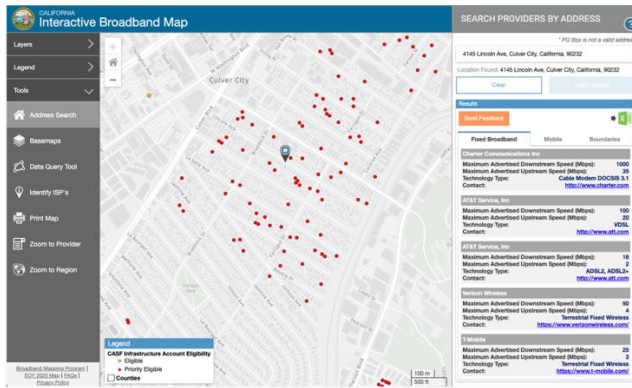


Figure 6. 4145 Lincoln Avenue, Culver City, California, 90232 on the CA Interactive Broadband and Federal Funding Account Maps.

Despite the NTIA Indicators of Broadband Need Map denoting the census tract encompassing the address as having 0% of households without internet access and two companies, Ting and Charter Spectrum, offering high speed service at the address.

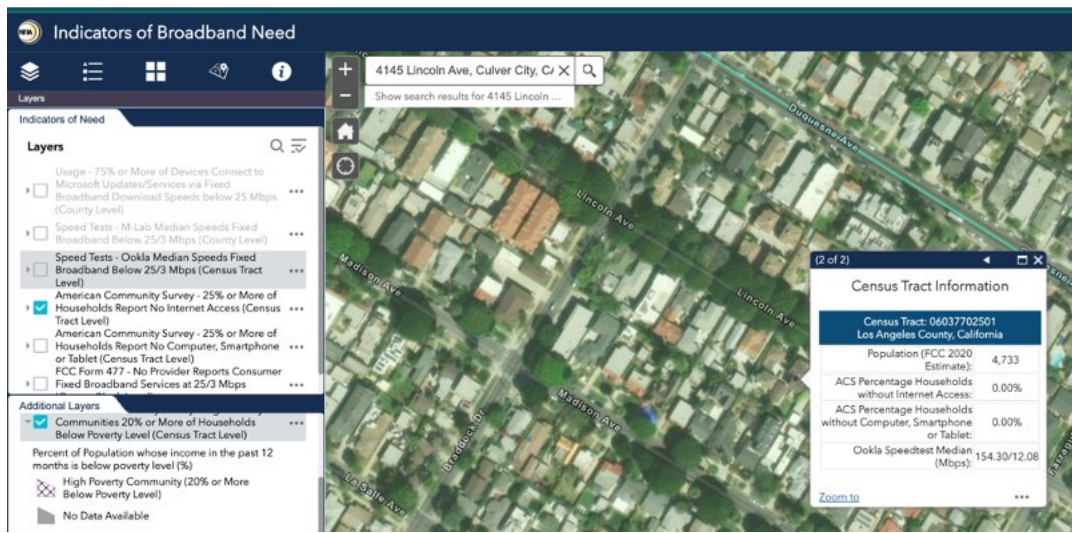


Figure 7. 4145 Lincoln Avenue, Culver City, California, 90232 on the NTIA Indicators of Broadband Need Map

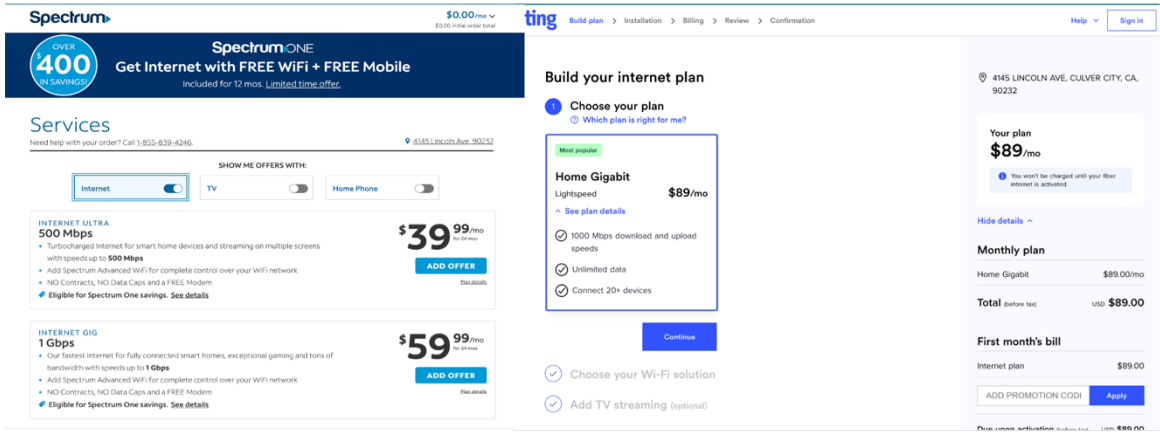


Figure 8. 4145 Lincoln Avenue, Culver City, California, 90232 Ting and Spectrum service offerings.

In Pleasanton, one of Alameda County’s wealthiest neighborhoods, a whole cluster of homes is demonstrably erroneously categories as unserved

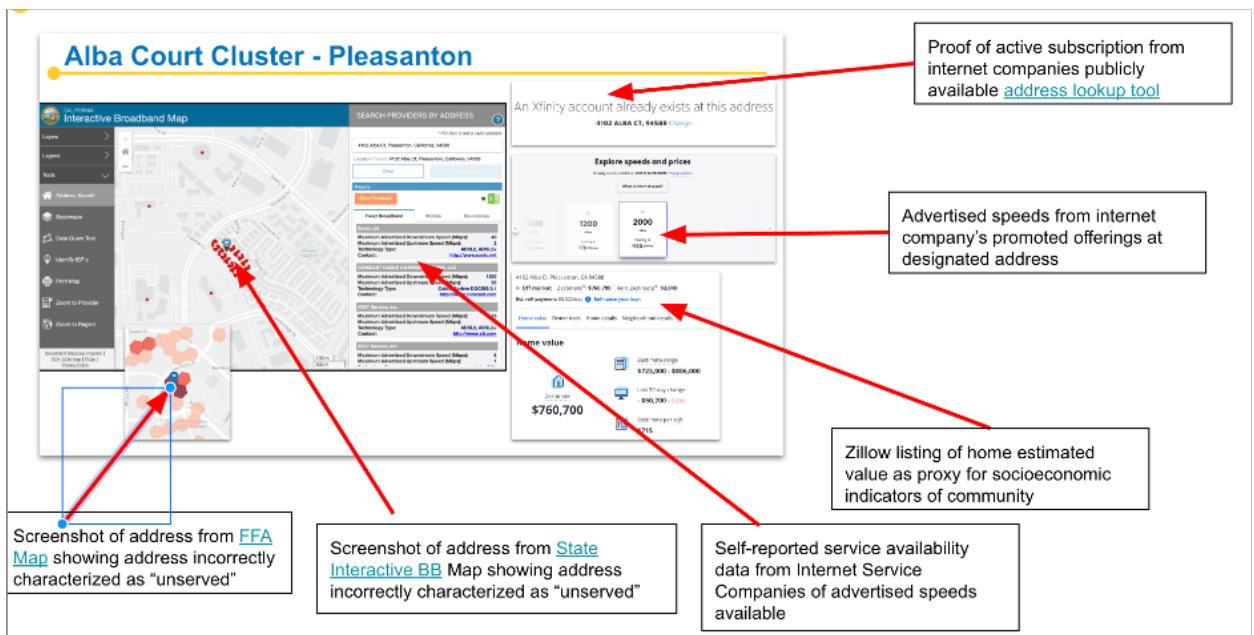


Figure 9. Alba Court Cluster of homes erroneously categories as unserved and prioritized for subsidies in the CASF Infrastructure Grant Account and Federal Funding Account programs.

The same is true for clusters of homes in wealthy communities across the Bay Area and beyond.

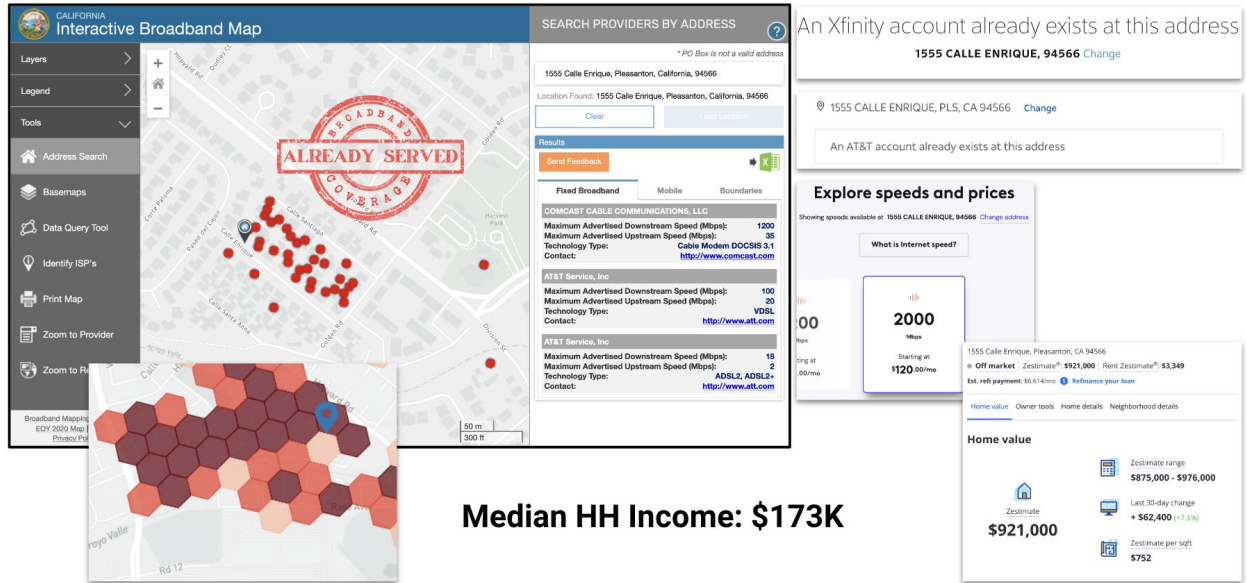


Figure 10. Example of served area in the Bay Area erroneously categorized as unserved.

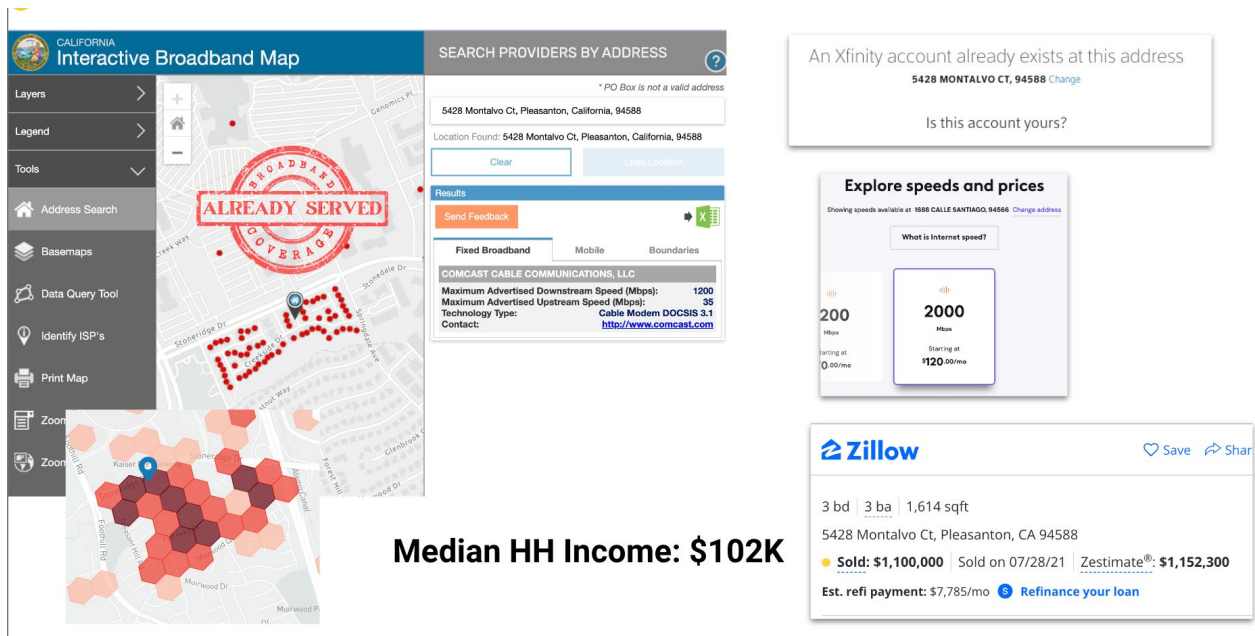


Figure 11. Example of served area in the Bay Area erroneously categorized as unserved.

We recommend including in the Draft Plan a revisit of the maps underlying the State’s planning for deployment of Middle-Mile and Last Mile dollars to ensure limited dollars are not being diverted from the communities that most need public investment.

2. The Draft Five-Year Plan does not address legislation currently under consideration in the California Assembly that could have significant implications for the State’s implementation of BEAD. For example, Assembly Bill 662 is intended to limit the Commission’s authority and ability to leverage the flexibility that statute, the NOFO, and other guidance leave to states to implement the program in ways that best meet the unique needs of California residents. We recommend adding Assembly Bill 662 in Section 4.2, Legislative and regulatory barriers.

CONCLUSION

California State Agencies are taking great care to sufficiently plan for this critical broadband funding. We are heartened by the consistent opportunities to provide feedback and look forward to seeing the incorporation of improved cost estimation, affordability standards, working group findings, and mapping accuracy into the final Plan.

Respectfully submitted,

/s/ Arnold Sowell, Jr.

Arnold Sowell, Jr.

Executive Director, NextGen Policy

Co-Convenor, California Alliance for Digital Equity
(CADE)

Tel: (916) 761-4985

Email: CADE@nextgenpolicy.org

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