



BROADBAND
WITHOUT
BOUNDARIES

COMMENTS OF WISPA – *BROADBAND WITHOUT BOUNDARIES*

WISPA – *Broadband Without Boundaries* appreciates the opportunity to comment on Volumes 1 and 2 of California’s draft Initial Proposal (“draft Initial Proposal”) released by the California Public Utilities Commission (“CPUC”). As a national trade association representing the interests of broadband providers using both fixed wireless and fiber technologies, including 67 providers headquartered in California,¹ WISPA has a keen interest in the path to ending the digital divide that will be laid out in the final version of the draft Initial Proposal. Giving serious consideration to the full range of internet service providers in the state will help CPUC ensure its final plans serve to quickly and efficiently connect every Californian to high-speed, reliable broadband internet service.

Initial Proposal Volume 1

Challenge Process (Requirement 7)

WISPA notes with approval California’s proposal to closely follow NTIA guidelines in certain aspects of its challenge process, but is concerned about several of the modifications CPUC proposes. In particular, WISPA emphasizes several aspects of the final guidance and California’s proposal.

Of greatest concern is the claim that “as a technical matter, fixed wireless fluctuate heavily,” which CPUC uses to propose treating “the 36,887 locations that the National Broadband Map shows to have available non-qualifying broadband service (i.e., a location that is “underserved”) delivered over Licensed Fixed Wireless (LFW) as ‘unserved’ for reported speeds that are lower than or equal to 30/5 Mbps.”² In this section, CPUC makes three errors: 1.) conflating the smaller subset of Fixed Wireless Access (“FWA”) provided by *cellular providers* and the larger universe of FWA providers, or Wireless Internet Service Providers (“WISPs”), an error compounded by the CPUC’s repeated intent only to engage with “cellular fixed wireless companies,” rather than the larger community of WISPs, which implies the understanding that

¹ A list of WISPA’s California members can be found here:
https://members.wispa.org/members/directory/search_bootstrap.php?org_id=WISP.

² Draft Initial Proposal Volume 1, at 7.

many WISPs are not also cellular providers; 2.) failing to distinguish between network architecture, which is the basis for *reliability*, and issues such as data capping or prioritization, which some cellular providers build into contracts and can be adjusted; and 3.) by conflating all FWA in this way, essentially proposing to treat all LFW as “unreliable.”

FWA providers frequently invest heavily in network architectures that ensure consistently reliable delivery of the speeds their customers subscribe to. Many WISPA members use innovative proprietary equipment and beamforming technology with larger channels that enable faster speeds, better coverage, and more reliable service. Cutting-edge technologies deployed in the field today are able to penetrate tree clutter and mitigate other line-of-sight issues.³ Further, WISPA members routinely use creative deployment solutions to ensure customers receive the speeds they purchase, such as by deploying radio equipment along power poles to precisely target homes surrounded by dense forest.

Areas that are not consistently receiving 100/20 speeds have already been identified through the FCC challenge process, conducted over the summer. California’s Five-Year Action Plan estimated the state had 996,302 unserved locations,⁴ while the Initial Proposal estimates 306,890 unserved locations and 154,591 underserved locations;⁵ presumably, even more locations will be removed following the state challenge process described in this section. The model BEAD Challenge Codes provide for a “Data Cap Challenge” (Challenge D), by which entities can demonstrate that although they subscribe to a given speed package, this speed may be throttled during periods of peak usage. To the extent that CPUC wishes to ensure consistent speeds over a given network, the BEAD NOFO requires performance testing as an important enforcement tool to ensure compliance. To the extent there are ongoing compliance shortfalls, the state can conduct its own audits and impose penalties, and structure its subgrantee selection process rules to include regular compliance reporting, such that CPUC can evaluate a given network for its likely ability to consistently provide a speed that qualifies under the NOFO as “served.” FWA providers should not be treated differently than other technologies: if a provider demonstrates that their contracts do not include such data throttling provisions, CPUC has no basis to *prima facie* treat areas shown as served as anything less based on a bias against a given technology.

Proposing to treat all licensed FWA as “unreliable” sharply deviates from the guidelines NTIA established in the Notice of Funding Opportunity (“NOFO”), which clearly states that locations served with licensed spectrum shall be deemed to be “served” with “reliable broadband

³ <https://www.taranawireless.com/getting-around-obstacles/>

⁴ [California Five-Year Action Plan](#) Appendix D at 130.

⁵ Draft Initial Proposal Volume 1 Appendices 2 and 3.

service.” NTIA has made abundantly clear that Eligible Entities must adopt Initial Proposals and implement BEAD funding in a manner that is consistent with the BEAD NOFO: “In identifying an Unserved Service Project or Underserved Service Project, an Eligible Entity may not treat as ‘unserved’ or ‘underserved’ any location that is already subject to an enforceable federal, state, or local commitment to deploy qualifying broadband as of the date that the challenge process described in Section IV.B.6 of this NOFO is concluded.”⁶

This principle was borne out in practice in Ohio, whose first draft Initial Proposal challenge process was explicitly rejected by NTIA for “treat[ing] locations that the National Broadband Map shows to have available qualifying broadband service (i.e., a location that is “served”) delivered via *Licensed Fixed Wireless* technologies as ‘unserved.’”⁷ In the event, NTIA required BroadbandOhio to re-draft this section of its challenge process to come into line with the NTIA’s definition of “reliable” broadband service.

Applying this principle from the Subgrantee Selection Primer suggests that California cannot treat locations served with licensed spectrum to be “underserved,” because that interpretation would be inconsistent with the BEAD NOFO that treats locations served with licensed spectrum to be deemed “served” within the definition of “reliable broadband service.” Nothing requires or allows the Draft Initial Proposal to include language that directly counters the federal NOFO, which appropriately determined that locations able to access broadband via licensed spectrum are receiving “reliable broadband service.” Given the many WISPs that rely on licensed FWA (including, but not limited to, cellular providers), California should remove this provision from its final Initial Proposal.

Secondly, the Speed Test Modification presents potential challenges the CPUC should take steps to address. Ookla and related speed tests can be meaningfully inaccurate based on network architecture. Speed tests are generally performed between an endpoint location within a network to a speed test server location determined by Ookla in its sole discretion. However, Ookla typically relies on third-party services, such as Maxmind, to characterize the topology of the tested network so that an appropriate speed test server location can be selected. Since ISPs often reuse and reassign IP addresses for network addressing efficiency, and are under no obligation to describe their network topology to Maxmind or any other third party, Ookla speed tests performed on such networks would not be reliable indications of network performance, because the routing to the speed test server could traverse out-of-date, indirect and/or inefficient paths. For this reason, any speed tests performed by Ookla should be subject to prior verification

⁶ NOFO, p. 36

⁷ *Draft Initial Proposal* at 10-11.

of the ISP's then-current network topology so that all speed tests rely on accurate network architecture data rather than surmise or third-party guesswork.

WISPA appreciates CPUC's stipulation that speed tests must include "certification of the speed tier to which the customer subscribes (e.g., a copy of the customer's last invoice or signed certification by the customer of the speed tier and a statement indicating the customer is subscribed to the highest service tier available)" in its speed test requirements. Many providers, especially in rural areas, may have many customers who subscribe to a lower speed tier, despite higher speeds being affordably on offer – for example, subscribing to a 25/3 Mbps package when a 100/20 package is available. This language has been built into Initial Proposals by states such as Utah, and California should incorporate this into all speed-related modifications.

California should use the most current version of the National Broadband Map at the start of the challenge process. Using current information will help avoid or limit the "map gap" that would not account for deployment post-dating an earlier version. Reliance on the most current version also will limit challenges that would be based on outdated information, allowing the state to focus its scarce administrative resources on resolving a smaller universe of legitimate challenges.

The deduplication process will help eliminate waste by mitigating substantially funding of locations that are subject to an "enforceable commitment." WISPA and its members are extremely concerned that some locations may be subject to duplicate governmental funding, and California should implement the final guidance's two-phased process to deduplicate locations. Relatedly, California should adopt the final guidance's evidentiary examples that allow planned service to be considered – again, this will help avoid funding where broadband service already exists.

WISPA members have expressed concern about the types of evidence that will be considered acceptable for Code P rebuttals demonstrating planned service, and we encourage California to consider giving providers greater clarity on the meaning of "necessary permits" – given the complexity of municipal permitting fees, a provider may not wish to pay for a particular local permit until it is certain that a customer or customers will request service. States such as Utah have added engineering or plant designs with Bill of Ladings to demonstrate a commitment to a challenged area ("Enforceable Commitment" and "Planned Service" rebuttals), as well as the expanded rebuttal examples for Availability.⁸ Expanding the range of evidence for a provider's intention to enter and serve an area is appropriate and useful.

⁸ https://www.connectingutah.com/files/ugd/ceee1c_5a0bb4324f43435792b1f9489e2166ea.pdf

WISPA notes, however, that the final guidance does not establish an evidentiary standard for resolving challenges. Although California notes it will adjudicate challenges “in detail without bias,”⁹ but does not describe what its evidentiary standard should be. WISPA recommends that California adopt in its Standard Operating Procedure a “preponderance of the evidence” standard, which will be administratively easier to implement than, for example, a “clear and convincing evidence” standard that could be interpreted differently by challenge adjudicators. In addition, the challenger, whether a governmental or tribal entity, nonprofit organization, or broadband provider, should have the burden of proof.

Initial Proposal Volume 2

Goals (Requirement 1)

California sets out laudable goals of ensuring universal service and robust digital equity (“DE”) work to “advance equal access to affordable, high-performance broadband that include the devices, training, and skills necessary for digital inclusion Failure to undertake robust DE efforts would be an unfortunate policy result of an inability to realize savings through FWA as a more prevalent alternative to fiber.”¹⁰ However, throughout the document, CPUC makes clear that a fiber-only approach to its universal service goals will leave the state woefully short of funds for DE efforts, noting later that it “does not anticipate supporting non-deployment eligible activities with BEAD program funds because the State’s estimated cost to provide universal service far exceeds its BEAD allocation and available State funding.”¹¹

This would be an unfortunate policy result of an inability to realize savings through FWA as a more prevalent alternative to fiber. Indeed, the BEAD NOFO makes clear that DE programs should be robust and should be seen as an integral part of the overall program.

WISPA encourages CPUC to make clear that its BEAD plans **must and will** ensure that all unserved and underserved BSLs are connected to minimum 100/20 Mbps service by the end of the program, and that it will utilize the flexibilities in the NOFO, such as targeted waiver requests and an appropriately-set Extremely High Cost Per Location Threshold (“EHCPLT”), to maximize its investments in such a way that preserve funds for DE efforts.

⁹ Draft Initial Proposal, Volume 1, p. 14.

¹⁰ Draft Initial Proposal, Volume 2, p. 5.

¹¹ Draft Initial Proposal, Volume 2, p. 57.

Deployment subgrantee selection (Requirement 8)

CPUC appears to recognize the significant challenges it faces in fully funding its BEAD program in saying “even where deployment is fully funded with BEAD funds, it may be economically challenging for a grantee to operate and sustain the network because of low revenue opportunity and high operating costs.”¹² Indeed, WISPA cannot stress firmly enough CPUC’s own assessment: “While significant, BEAD funding will not enable deployment of broadband infrastructure to these unserved and underserved locations in the State if not spent prudently, coordinated effectively, and targeted toward communities most in need.”¹³ This sentiment encapsulates WISPA’s approach to our comments on the entirety of California’s draft Initial Proposal: the state must focus on maximizing its BEAD investments to include as fully as possible all technology types that can deploy BEAD-standard 100/20 speeds; but in so doing, will reap savings significant enough to be able to meet all of its ambitions goals.

Indeed, other states that face funding challenges similar to California’s are already contemplating wide use of unlicensed-spectrum Fixed Wireless Access (“uFWA”). For example, the Idaho Office of Broadband asserts that alternative technologies “may not meet the BEAD NOFO’s definition of reliable broadband but will nonetheless provide service at a minimum of 100/20 and latency less than or equal to one hundred milliseconds at a lower cost.”¹⁴ Idaho is entirely correct in saying, “[u]tilizing multiple forms of broadband technology will help ensure universal service across the state and that no location, no matter how remote or prohibitive the cost, will remain unserved.” Indeed, this argument strongly aligns with WISPA’s focus on the importance of an appropriate EHCPLT.

In later sections, WISPA will discuss the importance of the EHCPLT, and the opportunities CPUC has to use this tool to enable BEAD funding to subsidize deployment to more unserved and underserved locations. WISPA strongly encourages CPUC to use these policy discussions to scrutinize its draft Initial Proposal and revise significant portions of it to find opportunities to fund deployment and non-deployment activities through rules and procedures that will enable alternative technology options that will better use the funding available to California, and to ensure that it does not fall short of the goals of the BEAD program. One opportunity lies in changing the lengthy negotiation process CPUC envisions in

¹² Draft Initial Proposal, Volume 2, p. 15.

¹³ Draft Initial Proposal, Volume 2, p. 20.

¹⁴ <https://linkup.idaho.gov/wp-content/uploads/2023/09/ID-Vol-II-Final-Draft-Post-for-Public-Comment-9.29.23.pdf>

its “Phases” section, in which it renegotiates project areas and funding for areas that receive no bids. Before undertaking this process, CPUC should add these areas to the set of EHCPLT areas and solicit alternative technologies – according to the Carmel Group, fixed wireless networks can be deployed at one-ninth the capital cost of fiber,¹⁵ and can be deployed in a fraction of the time. The significantly lower cost of deployment relative to fiber-to-the-home should ensure that there is stronger interest in applying for these challenging areas and that California can maximize its BEAD outlay by investing wisely.

In this and subsequent sections, California proposes policies pushing for speeds above the BEAD-specified 100/20 Mbps – in particular, suggesting goals of “symmetrical 1 Gbps service.”¹⁶ WISPA encourages CPUC to reconsider these. While broadband offices should plan for tomorrow’s needs to the greatest extent possible, we discourage focus on delivery of symmetrical speeds, which is not reflective of consumer experience or anticipated demand. A white paper by the Vernonburg Group determined that, “[g]iven the current market offerings by broadband providers and the highlighted asymmetric nature of consumer demand, there is no justification for a 100/100 Mbps broadband definition, but ample justification for a 100/20 Mbps broadband definition.”¹⁷ Thus, premising plans for broadband expansion on symmetrical speeds will lead to wasteful spending on unnecessary infrastructure, rather than focusing on achieving the goal of universal service.

As it contemplates scoring methodologies, CPUC can find other opportunities to bring in more providers to add competition and realize cost savings. In its Scoring Methodology,¹⁸ CPUC will require “unqualified audited financial statements from the last three years.” This goes beyond the requirements of the BEAD NOFO and would be difficult for many small providers to achieve. Instead, CPUC should alter this provision to allow unaudited financial information “if the prospective subgrantee has not been audited during the normal course of business,” provided that the subgrantee commits to providing the audited documents if its proposal is selected.

The Primary Scoring Criteria offer another opportunity to realize cost savings, by reprioritizing “Minimal BEAD Outlay” as the primary focus and awarding this criterion 40 points. CPUC has recognized that it must be a zealous guardian of its funds, and any criteria that divert from that goal must be minimized in favor of achieving universal service. Moreover, CPUC rightly recognizes that its BEAD funds are not unlimited, and that it will need to

¹⁵ [Liftoff! Internet Service Providers Take Flight with Fixed-Wireless and Hybrid Networks](#) (“The Carmel Report”).

¹⁶ Draft Initial Proposal, Volume 2, p. 31.

¹⁷ [Toward Effective Administration of State and Local Fixed Broadband Programs](#)

¹⁸ Draft Initial Proposal, Volume 2, beginning p. 26.

maximize its outlay wherever possible to achieve universal service. Increasing this focus by making this criterion the most highly-scored will create an incentive for potential subgrantees to “put their best foot forward” by submitting their most attractive bids; further, awarding more cost-effective projects will impact affordability – building cost-effective networks will allow providers to pass savings to customers. Given the CBO’s ability to control the end-user cost by controlling the cost of an awarded project, WISPA encourages the CBO to adjust its Primary Criteria scoring rubric to emphasize the downstream impact Minimal BEAD Outlay will have on Affordability by reversing these point values.

WISPA also notes that CPUC does not define the criteria it will use to score “Technical Capability,” “Equity,” or “Resilience” in its scoring rubrics. Further detail would be greatly helpful to clarify what standards CPUC expects and help providers prepare their BEAD applications appropriately.

CPUC requests input on the question of how to define project area boundaries, offering alternatives of creating pre-set project areas using political boundaries or letting providers offer their own proposals. WISPA appreciates the need for manageable project areas to review, but believes that using these pre-existing and artificial area boundaries may present more challenges than solutions, as providers may see approaches to building out networks that are not immediately apparent to the state, and existing networks may suggest approaches to covering grant areas in unforeseen ways. Bounding grant areas by census blocks or political subdivisions may thus may not best serve to increase the number of providers able to participate in the final round of subgrantee selection.

For consideration, WISPA offers an alternative 3-stage process by which applicants would define their own proposed funding areas. This may lead to overlapping applications, in whole or in part, that could be resolved through deconfliction, scoring, and settlement. The goal of this process is to determine the most cost-efficient approach to serving unique geographies in a way that incentivizes more applicants to consider a given area and allowing each provider to identify the “best tool” for serving a unique population that may not conform to geopolitical or census boundaries.

Deconfliction – Following the application deadline, all applicants that have filed would have a 15–30-day review period to determine whether they wish to make changes in their proposals to remove overlaps with other applicants. A brief filing window would open for applicants to remove areas from their proposal on a first come, first served basis such that only a total of “n” minus one may remove a given overlap area from their proposals, where “n” is the total number of proposals covering the overlap area. Applicants would be prohibited from

eliminating locations that would create any gap in coverage between BEAD areas proposed for service. Thus, all areas initially subject to a request for funding would remain covered by at least one proposal.

Scoring – Following the deconfliction period, each remaining overlap area would be separately scored on critical criteria to evaluate the optimal proposal in each such discrete area. First, any proposal that fails to provide new service to all unserved locations within an overlap area would be eliminated from further consideration in comparison to other applicants in that area that provide full coverage of these locations, regardless of cost. Second, applicants that provide coverage to underserved locations that exceed that proposed by others in the overlap area would receive a preference equivalent to a multiple of 1.5 times the percentage coverage of such locations by which it exceeds the coverage of each other competing applicant. Third, each applicant would receive a preference versus each other applicant based on the percentage by which its proposed cost per location served falls below that proposed by each other applicant. This scoring would create a hierarchy of proposals within each overlap area with the high scorer being provisionally assigned to that area. The scoring system ensures that all unserved locations would be covered, while providing a modest preference for even broader coverage in relation to lower cost of deployment.

Once each overlap area is provisionally assigned, each area assigned to an applicant would be aggregated both with all other areas provisionally assigned to that applicant as well as those areas, if any, in which it was the only applicant proposing service. To the extent that these assignments create discrete “islands” within broader territories assigned to a different applicant, these areas would be consolidated with the “dominant” applicant over the larger territory. Each surviving applicant would be provisionally assigned its own contiguous area and no applicant would be assigned a total coverage area comprising less than 25% of its original proposal, such that in any circumstance where 75% or more of the locations would otherwise be assigned to one applicant, that applicant will instead be assigned all the territory subject to the overlap analysis.

Settlement – Following the provisional assignment stage, to the extent that multiple applicants have been assigned to different territories within an initial overlap area, there would be an additional brief period within which those entities could negotiate to adjust their proposals to cede or trade areas that they propose to cover. This may result in an applicant assigned a relatively small percentage of its original proposed area (25%-35%) turning that obligation over to an applicant that has been assigned the larger portion of that overlap area, or it may simply result in two entities assigned closer to 50% of a broader overlap area adjusting their respective territories to optimize efficiencies that can be gained in construction and service deployment.

Although this process may be somewhat more involved on the front end, it will produce better results and give CPUC a better understanding of the best use of individual subgrantees' resources. The ability to aggregate locations that do not conform to geopolitical or census boundaries also may lead to more locations being the subject of applications, as less attractive and hard-to-serve locations could be grouped together alongside those locations that are more likely to be applied for. Additionally, undertaking this deconfliction process at the beginning of California's application process will address challenges noted in subsequent sections, in which CPUC envisions the possibility of certain areas receiving no bids, and thus requiring significant renegotiation with providers who bid on adjacent areas to expand to cover the "undesirable" territories.

If CPUC chooses to forgo this alternative process, WISPA suggests that project areas should not be based on geopolitical boundaries such as county borders or census blocks, but on independent criteria focused on respecting geographic features and population densities. Generally, prioritizing a small project area will ensure that geographic factors remain reasonably consistent, climate considerations are held constant, and proposed projects will not have to address significant disparities in service types.

CPUC also requests input on how to approach the EHCPLT. WISPA recommends adopting Alternative 1, and using data gleaned from the applications CPUC receives to set its Threshold. This path will give California significant insights into the cost savings it could realize from pursuing FWA or other alternatives across many areas of the state – the more data the state is able to use, the better its decision-making will be.

Given the greater flexibility the Extremely High Cost per Location Threshold ("EHCPLT") gives the CPUC to consider high-speed uFWA, this issue is vitally important to WISPA members. Indeed, the EHCPLT is a vital tool not merely for determining how many locations Colorado's BEAD allocation can serve with fiber, but in maximizing cost savings that will allow the CPUC to undertake robust non-deployment activities such as DE efforts to complement its broadband expansion obligations. In the coming weeks, WISPA will be releasing a dashboard that will give the CPUC a tool that should provide greater insight into the effects of certain policy choices on the EHCPLT level and the trade-offs of ubiquitous serve and DE objectives. This dashboard will clearly demonstrate that robust use of FWA will realize millions of dollars of savings that can be devoted to DE.

If the EHCPLT is set too high, there will be a gap between locations funded with Priority Broadband Projects and those that do not meet the EHCPLT, leading providers to not bid on

certain project areas. This is due in part to the demonstrably higher costs to deploy fiber than FWA, as noted in the Carmel Report, referenced above.

WISPA suggests an approach outlined in the Lehr White Paper: instead of prejudging outcomes by establishing the EHCPLT “as high as possible,” Dr. Lehr recommends that states “set their EHCPLT to optimize the effectiveness of public funds in promoting the State’s broadband and digital economy strategies, not at some artificially high threshold that leaves unserved locations unserved and wastes public funding overbuilding locations that are already served.” This is because “even assuming that a State is provided sufficient funds to serve every unserved location based on the average FTTP cost in a State (and that will be higher in higher cost States), then the more locations that have to be served that have much higher costs, the lower the EHCPLT has to be set to enable a larger share of locations to be eligible for funding by fixed wireless technologies.”

Before dedicating significant staff time to a possibly lengthy renegotiation to cover a final difficult set of BSLs, CPUC could instead fold any project areas that do not receive applications for 100% service into its EHCPLT area designation. Taking this approach would increase the CPUC’s ability to consider more cost-effective technologies to serve these areas, saving the state time and expense. If grant proposals by providers using uFWA still cannot serve all BSLs, further negotiation is clearly warranted: however, if an alternative technology is able to serve the entire project area, the state will save itself meaningful expense in sparing itself the work of renegotiation and in likely overall project cost.

WISPA encourages CPUC to consider Colorado conclusion that it must focus on alternative technologies in EHCPLT areas: “In cases where a priority broadband project area exceeds the EHCPLT, the CBO will solely consider non-priority broadband projects, even if they do not meet the criteria for reliable broadband.”¹⁹

In discussing the Letter of Credit (“LOC”) requirement, the CPUC notes that shortly before publication of this document, NTIA “provided new guidance and a waiver regarding the letter of credit requirement.”²⁰ This waiver came about due to the work of a broad coalition representing the entire spectrum of broadband stakeholders, including many WISPA members. Consistent with NTIA’s programmatic waiver, WISPA strongly encourages California to waive the LOC for all providers and to work with its provider community to adopt an appropriate alternative to the LOC model: given its stated plan to use a reimbursement model in its BEAD

¹⁹ [Colorado Draft Initial Proposal, Volume 2](#), p. 78.

²⁰ Draft Initial Proposal, Volume 2, p. 45.

grants (a proposal WISPA fully supports), we believe this model would be an appropriate substitution. While NTIA and California have a legitimate interest in ensuring that subgrantees have the financial capability to undertake the projects they propose, the original letter of credit mechanism is an inappropriate tool and would stifle, rather than encourage, applications by small business.

Finally, in this section, CPUC notes that all project plans must be approved by a “certified professional engineer.” This requirement will be inefficient and lead to a reduction in small providers’ ability to participate. Frequently, professional engineers are not best qualified to evaluate network design if they do not have significant experience in broadband network design; further, many small companies may be unable to afford the cost of engaging a professional engineer, and, as the Federal Communications Commission determined in July 2022 (<https://docs.fcc.gov/public/attachments/DA-22-733A1.pdf>), such qualifications are not always readily available where a provider would otherwise like to hire one. WISPA encourages the CPUC to consider the waiver conditions the FCC granted to its own professional engineering certification rules and to work with the provider community to determine alternative authorities who could qualify to certify that network plans are appropriately designed.

Cost and barrier reduction (Requirement 14)

As it further considers opportunities to reduce costs and barriers to speedy deployment, WISPA encourages CPUC to create a “Broadband Ready Communities” model to give local communities an additional tool to grapple with the challenges of bureaucratic approvals and costs. This concept has states setting out a model ordinance local units of government, such as towns, cities, or counties, may voluntarily adopt to streamline the permitting process for new broadband projects. The model ordinance may include such items as identifying a single point of contact for broadband issues, commitments to timelines for project approvals, and defining reasonable fees for permits. A Pew memo²¹ describes the potential benefits of implementing these standards: “These programs are designed to create efficiencies in broadband deployment, provide a signal to developers and ISPs that a community is willing to work with them toward broadband expansion projects, and foster local leadership and collaboration in all broadband development efforts.”

WISPA’s State Advocacy Manager, Steven Schwerbel, was involved in drafting Wisconsin’s Broadband Ready Communities legislation (there, called Broadband Forward!

²¹ <https://www.pewtrusts.org/-/media/assets/2023/04/broadband-ready-communities-ta-memo-pdf.pdf>

Communities), and is available to provide insight into this process, and how to craft the program in a way that will be as effective as possible for the communities that wish to adopt it.

Climate assessment (Requirement 15)

WISPA encourages CPUC to consider including climate-related concerns in its scoring model: these issues can be addressed in unique ways by FWA networks. Given the cost of trenching fiber, particularly in the challenging topographies and soil conditions in many parts of California, buried fiber will likely present significant hurdles in both cost and time, incentivizing providers to move toward aerial fiber deployments that are vulnerable to impacts from the wildfires, flooding, and extreme cold temperatures that California discusses in this draft. By contrast, FWA deployments utilize towers and other vertical infrastructure that can better withstand severe climate events and changes and thus do not have the vulnerabilities presented by fiber, presenting a more appealing solution to the problem of deploying high-speed solutions in challenging terrains. Indeed, fixed wireless providers are frequently called upon to step in to provide emergency connectivity support for first responders battling wildfires in states like California, as WISP infrastructure is unaffected by these natural disasters.

Further, a recent white paper from Tarana Wireless, a vendor that leads the WISP industry in innovating FWA solutions, argues that “when calculated on a per-subscriber basis, the Tarana G1 platform generates 55% less cumulative carbon emissions compared to a fiber-to-the-home deployment, and 70% less net present carbon emissions.”²² Taken together with the above, FWA deployments may be part of an overall green strategy that CPUC could pursue in considering its final BEAD rules.

Conclusion

WISPA members have been working for decades to close the digital divide with their own resources and time, because they saw the need in their communities and refused to wait for the government to fix the problem. At the cusp of a truly historic opportunity to finally and fully close this gap, they stand ready to work with California to realize the historic promise of BEAD. We hope the suggestions we have made here will be greeted in the spirit of positive cooperation and desire to work together in which they are offered and will be fully considered as the state prepares its final Initial Proposal.

²² [Next Generation Fixed Wireless Access: A Greener Future](#) at 2.



BROADBAND
WITHOUT
BOUNDARIES

Page 14

Respectfully submitted,

**WISPA –
*BROADBAND WITHOUT BOUNDARIES***

November 27, 2023

By: */s/ Steven Schwerbel*
Steven Schwerbel
State Advocacy Manager
200 Massachusetts Ave, NW, Suite 700
Washington, DC 20001