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TURN
THE UTILITY REFORM NETWORK

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Subject: Joint Comments of the Office of Ratepayer Advocates and The Utility Reform Network on Communication Division's White Paper *High Impact Areas for Broadband Availability*

I.   Introduction

In accordance with the California Public Utilities Commission's (Commission or CPUC) Communications Division (CD) February 17, 2017 white paper, *High Impact Areas for Broadband Availability,* (White Paper), the Office of Ratepayers Advocates (ORA) and The Utility Reform Network (TURN) provide the following comments on the overall goals of the White Paper, the methodology used to identify areas of interest and high-impact areas, and a recommended process to advance deployment of broadband services in areas of need throughout the State.

On February 17, 2017, CD issued a White Paper identifying areas that CD believes represent the "best bang for the buck" and will help increase efforts to deploy broadband in California. Subsequently, on February 28, 2017, CD held a workshop and presented the methodology it used to identify "high impact" areas. This led to a discussion on whether there are already existing service providers in those areas, whether any service providers were willing to commit to deploying broadband service in the identified areas, and what process CD should use in the future to review applications received in those identified areas. ORA's and TURN's comments are discussed in more detail in the following order.

1. The White Paper should clearly define its goals and scope.
2. The methodology used to identify areas of interest and high impact areas should not leave out areas of need in the State.
3. Recommended updates to the existing methodology to identify high impact areas.
4. Recommended process moving forward.

II.   Discussion

1.   The White Paper should clearly define its goals and scope.

The White Paper lists a number of objectives it is attempting to achieve including: increasing broadband deployment, finding areas with the best "bang for the buck" deployment, improving the efficiency and efficacy of the California Advanced Services Fund (CASF) program, increasing the speed of application review, and increasing the number of served households in California.[1] ORA and TURN support further efforts to deploy broadband in areas of need but are concerned whether a list of high-impact areas and areas of interest would adequately address the above objectives from the White Paper and those raised in the February 28th workshop; especially given that a list of "high-priority" areas already exists in the program. The White Paper needs to clearly provide the objectives it is trying to meet by creating the list of areas of interest and high impact areas. This would address the confusion expressed in the workshop around the goals and scope of the White Paper.

The goals of the White Paper are unclear because the underlying "bang for the buck" approach is somewhat unsuitable for guiding the CASF program given that this approach excludes areas in need of broadband deployment. The White Paper makes reference to § 709 and § 281 of the California Public Utilities Code ("P.U. Code") but fails to mention the following important universal service policies governing telecommunications public purpose programs such as the CASF, which are also included in those statutes:

- Assisting in bridging the "digital divide" by encouraging expanded access to state-of-the-art technologies for rural, inner-city, low-income, and disabled Californians.[2]
- Promoting economic growth, job creation, and the substantial social benefits of advanced information and communications technologies.[3]

The White Paper must consider low income areas, rural areas, and potential social impacts when designating areas of interest and high impact areas. The current methodology identified in the White Paper risks leaving rural or low income areas on the wrong side of the digital divide by approaching the identification of areas of interest and high-impact areas from the lens of "thinking like an ISP."[4] The Commission must consider the social impacts of broadband investment and the large economic and societal benefits of infrastructure investment in low income and rural areas.

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[1] Pages 1 and 22 of the White Paper provide these objectives except for the objective of increasing the speed of application review, which was discussed in the February 28th workshop.
[2] P.U. Code § 709 (d)
[3] This policy goal is found in both P.U. Code § 281 (a) and P.U. Code § 709 (e)
[4] The presentation during the Workshop on February 28, 2017 suggested this viewpoint guided development of the White Paper. ISP stands for Internet Service Provider.

Additionally, taking a "think like an ISP" approach may duplicate efforts by ISPs that are already pursuing areas with their own capital expenditures. For example, at the February 28th workshop, AT&T commented that it already deploys in areas where it sees population growth. Taking this approach may neglect areas which ISPs would not target and therefore are areas most in need of the CASF program's funds.

2. **The methodology used to identify areas of interest should not leave out areas in need of broadband deployment in the State.**

Using the "best bang for the buck" approach, the White Paper identified 46 areas of interest by looking at unserved/underserved areas in the California Broadband Availability Map and then added a household density layer that highlighted areas of 150 or more households per square mile. If the Commission seeks to meet the objectives of P.U. Code § 709 through this White Paper, which includes bridging the "digital divide" for **rural** areas; then, the methodology used to define "an area of interest" must not exclude these areas by design. Currently, the White Paper uses a household density of 150 or more households that excludes rural areas, which may contain communities that need funding from CASF. The U.S. Census Bureau defines rural areas as "[consisting] of open countryside with population densities less than 500 people per square mile and places with fewer than 2,500 people." [5] The average population per household in California is 2.96 persons. This means the 150 household density layer translates to 444 people per square mile.[6] Therefore, the household density layer is excluding all areas with populations less than 444 people per square mile. To avoid excluding these rural areas where the need for CASF funding may be high, ORA and TURN recommend that the White Paper not use a household density layer and focus on identifying and prioritizing "areas of interest" as populated areas that are unserved and/or underserved. This way, the Commission can more broadly capture areas that should receive priority for CASF funding as they may be areas that continue to be forgotten and/or are unappealing to service providers. For this reason, using only the "best bang for the buck" approach is not appropriate to identify areas of interest and high impact areas.

3. **Recommendations for identifying high impact areas.**

By not considering rural and low-income areas, the underlying approach of "thinking like an ISP" used in creating the "filters"[7] that identify the high impact areas overlooks the social benefits that were considered when the CASF program was created. This is inconsistent given that a key purpose of CASF is to fund deployment by providers such as ISPs in high-cost, difficult-to-serve areas where market forces have failed to provide broadband service. When identifying the high impact areas, CD should refine some filters and remove others.

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[5] https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural.aspx
[6] Multiplying the 150 households per square mile density with the average persons per household (2.96) gives a population density of 444 persons per square mile. This density is very close to the 500 persons per square mile maximum that defines a rural area.
[7] The term "filters" refers to the four factors on page 8 of the White Paper used in identifying the high impact areas. This term was used by CD in the February 28, 2017 workshop.

a. **Presence of fixed wireless.** The filter that eliminates areas served by fixed wireless should be removed. Fixed wireless broadband service availability is limited, is subject to geographical constraints, does not provide speeds as fast as fixed wireline broadband, and is unaffordable for many consumers.[8] Fixed wireless technology depends on a clear line-of-sight between the home and the fixed wireless tower, which may not exist in forested or hills terrain. The boundaries of fixed wireless service are variable, which means that even when a census block is shown as served by fixed wireless service, it may not be the case. Fixed wireless service may not be available to all households in a census block. Furthermore, fixed wireless service is also sensitive to changes in weather and vulnerable to natural disasters such as wildfires, which raises public safety concerns. Lastly, fixed wireless service agreements may include restrictive data caps.[9] For these reasons, CD should not remove areas served by fixed wireless.

b. **60% or more of households served at speeds of 10 Mbps download and 1 Mbps upload (10/1).** The percentage in determining households at speeds of 10/1 should not be an arbitrary number. ORA supports TURN's comments in the workshop for a clear analysis of the percentages used for this filter. At a minimum, the analysis should explain the rationale for selecting the 60% threshold and also provide a comparison of results at different percentages, so that the Commission has a clear picture of possible trade-offs.

c. **Removing areas with challenging terrain.** The filter that eliminates areas with challenging terrain should be removed. If CASF ignores populated areas with challenging terrain, then these areas will constantly be left behind. As stated previously, by taking a "think like an ISP" approach, the White Paper may be duplicating efforts by ISPs that are already pursuing areas with their own capital expenditures. Taking this approach may neglect areas where CASF funding is truly necessary.

d. **Other factors to consider.** CD should consider the following additional factors in revising their methodology for identifying "high impact" areas:

   i. **Presence of middle mile.** The presence of middle mile is important for high impact areas because no company or organization will be able to build out last mile service where no middle mile exists. CD should conduct an analysis on presence of middle mile in the areas it has identified as areas of interest.

   ii. **Low income consideration.** CD should prioritize areas with low-income communities as P.U. Code 709(d) highlights low-income areas in bridging the

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[8] Research done by ORA shows that, "On the lower end of speeds, customers must pay an average of $61 a month for 1 Mbps. Upgrading service to an average $100 per month service package would only get [a customer] 7 Mbps." This is from testimony provided by ORA in the Order Instituting Investigation (OII) proceeding looking at the state of competition among telecommunication carriers (Competition OII).

[9] As part of the Competition OII, ORA's research found that out of the 47 fixed wireless service providers in California, 37 had set data caps for customers (I.15-11-007).

digital divide. We suggest that staff may wish to run scenarios that demonstrate the impact of including or excluding income as a factor.

 iii.   **Public safety.** CD should give special consideration to areas vulnerable to natural disasters. If an underserved/unserved area does not have wireline service and is vulnerable to natural disasters, e.g. wildfires and dam/levee failures, this raises public safety concerns. The Commission should work with first responder agencies to identify areas that need better communication infrastructure.

 iv.   **Areas on Consortia's priority list.** The Commission, in Resolution T-17443, adopted a list of "priority areas" where regional Consortia identified areas lacking broadband availability. As mentioned in the Resolution, the Consortia "identified these priority areas based on several considerations that include social and economic impact, feasibility, anchor institutions, income levels, opportunities for resource management, and number of households without broadband access at served speeds."[10] It is not clear how a new high impact area list will affect the list that already exists. It is important to define the roles each list will play and how a new list will change the participation of new applications to bring broadband service to these areas. Moreover, the consortia priority list should be given more weight in identifying high impact areas as the consortia groups are very familiar with the areas they have identified as priorities and can attest to the need for broadband in those areas. In comparing the two lists, ORA found that only 10 of 46 areas appear in the priority list. This shows the approach the White Paper is taking is not in alignment with the consortia groups who are more familiar with their regional areas. An approach CD may want to consider is using the areas already identified in the consortia priority list and running those areas through filters to identify high impact areas.

 v.   **Tribal lands.** Only one area designated as tribal land appears in the list of 46 areas of interest. This is concerning as tribal lands are often ignored by service providers causing serious gaps in communications infrastructure that impact school children, public safety, and other social issues.[11] For these reasons, tribal lands should be given more consideration.

4.   **Recommended process to achieve further broadband deployment in California/**

  The Commission should be mindful of the impacts the White Paper could have on existing CASF applications. There are nine applications awaiting review and CD should prioritize completing its review of these outstanding applications and determine whether to grant

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[10] CPUC Resolution T-17443, page 9.

[11] FCC, Office of Native Affairs and Policy, 2012 Annual Report, page 6.

funds. The White Paper uses language like "fast track" and "priority review" that implies that applications in non-priority areas could receive lesser consideration and that decision-makers would be less likely to approve projects outside of high impact areas. Companies (and even some communities) commit significant time and resources to submit an application. It is unreasonable to introduce a second set of criteria that could influence how decision-makers view CASF applications and could prejudice existing applications.

In addition, the White Paper is unclear what a "fast track" application process would entail. Staff must evaluate many parts of a CASF application, not just the physical location of a project area. Staff thoroughly examines several factors including, but not limited to: construction plans, project budgets, company leadership, company financial information, and planned pricing tiers. Staff should not overlook important issues or flaws in an application and risk spending CASF resources inefficiently with a fast track review process. Furthermore, Resolution T-17443 already provides an estimated timeline[12] for review of CASF projects. The timeline ensures that application review will progress at an estimated reasonable speed from the time of submission to Commission resolution. A "fast track" process would risk increasing the speed of reviewing applications by removing or skipping over important areas of review.

ORA and TURN recognize the need to increase California broadband deployment. As such, a useful and effective approach would be to ask telecommunications companies for their broadband deployment plans over the next six months, 12 months, and 24 months and hold them accountable to their plans. If held accountable, these deployment plans can be taken into account in meeting and exceeding the state's 98 percent deployment goal. This would also allow the CASF program to focus on areas outside these deployment plans, and grant applicants need not worry about challenges from telecommunications carriers and other broadband providers, which delays the grant application process. As stated in the workshop, ISPs typically pursue population growth and household developments for locations to build out new network connections and gain new customers. The Commission should get firm, clear commitments from telecommunications carriers and other broadband service providers on what census blocks they plan to build out with new infrastructure over the next six months, 12 months, and 24 months. The Commission can use this information to determine the areas that might not receive broadband service without the support of the CASF program.

Additionally, the Commission should use the carriers' deployment commitments and middle mile infrastructure information gathered to direct outreach efforts. Commission staff should consider ORA's and TURN's comments on the White Paper's methodology in identifying areas of interest and high impact areas and should consider evaluating the existing Consortia priority areas that would greatly benefit from broadband deployments. Staff should contact ISPs in and near these areas and hold workshops in the specific regions to encourage CASF applications.

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[12]CPUC Resolution T-17443, Appendix 2, page 17.

Lastly, the Commission should go back to imposing deadlines for receiving applications so that it can, as much as possible, follow the estimated timeline established in Resolution T-17443. By establishing application deadlines, the Commission will have a complete list of areas seeking funding rather than waiting to see what may be submitted on a rolling basis.

III.   Conclusions

ORA and TURN look forward to continue participating in advancing broadband deployment in California. ORA and TURN support CD's efforts to create a list of areas of interest and high impact areas, but only if the White Paper chooses the appropriate methodology to identify areas of interest and high impact areas without jeopardizing the goals of the CASF program and the Commission of bringing broadband deployment to areas in need. In doing so, the Commission must consider factors such as presence of middle mile, public safety, low income, tribal lands, and the areas identified in the Consortia priority list. At this time, ORA and TURN are unclear whether the best "bang for the buck" approach can be reconciled with these important factors. The Commission should also take a proactive approach to reach deployment goals by obtaining planned deployments from telecommunication carriers and other broadband providers and holding these organizations accountable to their planned deployments in the State.

Respectfully Submitted,

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