Decision 21-03-006 March 4, 2021

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Revisions to the California Advanced Services Fund.	Rulemaking 20-08-021

DECISION MODIFYING DATA SUBMISSION REQUIREMENTS AND REQUIRING OPEN ACCESS FOR CALIFORNIA ADVANCED SERVICES FUND PROJECTS

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DECISION MODIFYING DATA SUBMISSION REQUIREMENTS AND REQUIRING OPEN ACCESS FOR CALIFORNIA ADVANCED SERVICES FUND PROJECTS

Summary

This decision modifies certain data submission requirements for participation in the California Advanced Services Fund (CASF) program and requires that broadband service providers offer open access to middle-mile infrastructure funded by CASF.

Going forward, broadband providers wishing to demonstrate that they offer service to a given location will no longer be required to submit the Federal Communications Commission's Form 477. Instead, they will be required to submit specific technical and subscriber data consistent with the rules adopted herein.

For all middle-mile infrastructure[1] receiving CASF funds in the future, broadband service providers will be required to provide open access, which is defined as nondiscriminatory access to independent service providers or other entities on reasonable and equal terms, wherever technically feasible. A framework for pricing, tariffs, and standard terms and conditions must also be submitted to the California Public Utilities Commission.

Program modifications, as well as non-substantive updates reflecting the passage of time or addressing typographical errors, are set forth in revised CASF program guidelines (Appendix A). This decision completes Phase I of the proceeding. The proceeding remains open to consider the issues identified in the Scoping Memo for Phase II and Phase III of the rulemaking.

[1] Middle-mile infrastructure is the section of a network connecting local, last mile networks to the backbone of the internet.

1. Background

1.1. Procedural Background

The California Advanced Services Fund (CASF) program was first authorized in 2007 via California Public Utilities Commission (Commission) Decision (D.) 07-12-054. The Legislature subsequently codified the program in California Public Utilities Code (Pub. Util. Code) Section 281, and later modified the program via subsequent legislation. Pub. Util. Code § 281 directs the Commission, among other things, to "encourage deployment of high-quality advanced communications services to all Californians that will promote economic growth, job creation, and the substantial social benefits of advanced information and communications technologies…." (Pub. Util. Code § 281(a)). Legislative modifications and other program refinements were implemented in Rulemaking (R.)12-10-012.

The statutory goal of CASF is to provide broadband access to 98 percent of households in each of 17 regions across the state by December 31, 2022.[2,3] CASF consists of the following accounts and programs:

- Broadband Infrastructure Grant Account (Infrastructure Account)
- Line Extension Program (LEP)
- Rural and Urban Regional Broadband Consortium Grant Account (Consortia Account)

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[2] These regions are referred to as broadband consortia regions and are defined pursuant to Pub. Util. Code § 281(b)(1)(A). Map 1 on page 7 of the CASF 2019 Annual Report illustrates the regional consortia locations: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Communications_-_Telecommunications_and_Broadband/2019%20Annual%20Report%20California%20Advanced%20Services%20Fund%202.pdf.

[3] Links to webpages are provided as a courtesy to the reader and are accurate as of December 15, 2020.

- Broadband Public Housing Account (Public Housing Account)
- Broadband Adoption Account (Adoption Account)
- Tribal Technical Assistance

The most recent Infrastructure Account grant application deadline was May 4, 2020, with 54 applications received and 14 granted to date.[4] A remaining 40 applications are pending resolution. Grants are expected to be awarded by March 31, 2021.[5]

R.12-10-012 was closed in September 2020, and the instant rulemaking was opened on September 2, 2020 to consider additional program refinements and respond to any unforeseen circumstances that may arise in 2021. Parties submitted comments and reply comments on the Order Instituting Rulemaking (OIR) in September 2020, and a prehearing conference was held on October 1, 2020.[6]

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[4] CASF project approvals, including both Resolutions and ministerial letters from Communications Division, are viewable at *Approved CASF Projects*, at https://www.cpuc.ca.gov/General.aspx?id=1057&LangType=1033.

[5] The Commission's Executive Director extended the deadline for Commission action to March 31, 2020 via a letter to the CASF Distribution and Service Lists. See https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Communications_-_Telecommunications_and_Broadband/CASF%20Deemed%20Denied%20Letter%20to%20Applicants%2011-13-20.pdf.

[6] Parties filing comments or reply comments on the OIR and/or appearing at the prehearing conference were: Pacific Bell Telephone Company d/b/a AT&T California (AT&T); Public Advocates Office (Cal Advocates); Central Coast Broadband Consortium (CCBC); California Center for Rural Policy (CCRP); California Cable and Telecommunications Association (CCTA); California Emerging Technology Fund (CETF); Electronic Frontier Foundation (EFF – comments late-filed in November 2020); Frontier California, Inc., Citizens Telecommunications Company of California, Inc., Frontier Communications of the Southwest, Inc. (Frontier); North Bay North Coast Broadband Consortium (NBNCBC – comments late-filed in October 2020); National Diversity Coalition (NDC); Rural County Representatives of California (RCRC); Race Telecommunications, Inc. (Race); Winterhaven Telephone Company, Ducor Telephone

On October 26, 2020, the assigned Commissioner issued the Scoping Memo in this proceeding setting out several refinements and modifications to be considered. The Scoping Memo outlines three phases for the proceeding and anticipates two decisions to address Phase I (referred to as Phase I-A and Phase I-B).

The Commission issued a staff proposal addressing Phase I-A on October 1, 2020 (Phase I-A staff proposal). That proposal recommended an approach to leveraging the federal Rural Digital Opportunity Fund (RDOF) program. Parties filed comments and reply comments on the Phase I-A staff proposal on October 15, 2020 and October 22, 2020, respectively. Phase I-A was resolved in D.21-01-003, adopted on January 14, 2021.

The Scoping Memo also included an attached staff proposal addressing the two issues in scope for Phase I-B (Data Proposal and Open Access Proposal):[7]

1. Submission of necessary data related to exercising the Right of First Refusal and completion reports.

   As part of participating in the CASF program, providers are required to submit technical and subscriber data. This proceeding will consider modifications to those data submission requirements.

2. Whether broadband service providers should be required to offer open access to infrastructure funded by CASF.

Company, Happy Valley Telephone Company, Foresthill Telephone Co., Hornitos Telephone Company, Siskiyou Telephone Company, Calaveras Telephone Company, Volcano Telephone Company, Cal-Ore Telephone Co., Ponderosa Telephone Company, Kerman Telephone Co., Sierra Telephone Company, Inc., Pinnacles Telephone Co. (jointly as the Small LECs); and the Utility Reform Network jointly with the Greenlining Institute (TURN and Greenlining).

[7] All unspecified references to "staff proposal" reference the Phase I-B staff proposal, not the Phase I-A staff proposal.

Parties filed comments on both the staff proposal and the Scoping Memo as relates to Phase I on November 6, 2020. Reply comments were filed on November 13, 2020.[8] This decision resolves the issues in scope for Phase I-B.

1.2. Factual Background

1.2.1. Data Submission Requirements

The existing rules regarding the submission of proof that a provider is an existing facilities-based provider were adopted in D.18-12-018 and are addressed in two sections of the CASF Broadband Infrastructure Account Requirements, Guidelines and Application Materials (CASF Guidelines): Right of First Refusal (ROFR) and the Semi-Annual and Completion Reporting.[9] A summary of the existing rules follows.

By January 15th of each year, an existing facilities-based provider may make a ROFR claim, committing to deploy broadband access within 180 days to census blocks designated on the California Interactive Broadband Map as unserved by a facilities-based service provider.[10] Facilities-based providers are eligible to make an ROFR claim in a given census block if one or more of the following conditions apply:

1. The provider has already deployed service to at least one household in the census block – service in the census block must be below 6/1 Mbps.

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[8] Parties filing comments and/or reply comments were: AT&T; Cal Advocates; CCTA; CETF; Charter Communications Operating, LLC (Charter); Frontier; NBNCBC; NDC; Race; RCRC; Small LECs; and TURN and Greenlining.

[9] *See* D.18-12-018 APPENDIX 1 Broadband Infrastructure Account Requirements, Guidelines and Application Materials, Section 5.2, p. 10, and Section 13, p. 28.

[10] Unserved census blocks are those with either no service, or service below 6/1 Mbps. Served census blocks have service to at least one household that is at or above 6/1 Mbps. A provider must commit to serving all households within the census block(s) for which it submits an ROFR claim, not just some.

2. The provider has a video franchise and already offers video service to at least one household in that census block under the Digital Infrastructure and Video Competition Act of 2006 (DIVCA).

3. The provider is an incumbent local exchange carrier (ILEC), and the census block is within its wire center region.

4. The provider is a wireless internet service provider (WISP), and it has at least one subscriber in the census block.

If the claim is successful, the Commission cannot approve CASF funding for projects in the census block; it is expected to soon be served via the private sector, making public funding unnecessary.

There are two methods for an existing facilities-based provider to prove that it meets the first criterion above: the provider may reference relevant data it submitted for the most recent California Interactive Broadband Map (Broadband Map)[11] update, or it may submit to Communications Division a copy of its most recent Federal Communications Commission (FCC) Form 477.

Form 477 is a data collection form used by the FCC to determine areas that are served by telecommunications providers; it is currently a primary source of data used by the federal government for identifying underserved areas.[12] Through Form 477, the FCC collects information about broadband connections to end-user locations, wired and wireless local telephone services, and interconnected Voice over Internet Protocol (VoIP) services nationwide.[13]

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[11] The Broadband Map shows locations' served status and CASF eligibility. It is maintained by Commission Staff (Staff). Available as of this writing at https://www.broadbandmap.ca.gov/. The Broadband Map is described in greater detail later in this section.

[12] 47 CFR § 1.7001.

[13] 47 U.S.C. § 153(58).

Providers report deployed fixed-broadband technology type, upload and download speed, and latency at the census block level.

The FCC recently acknowledged that the fixed and mobile broadband data collected on Form 477 is insufficient to support its universal service policy goals and has initiated a multi-year process to replace the form with a new data collection program.[14]

CASF grantees currently must also submit Form 477 to the Commission. This is done as part of submitting subscriber and other technical data in a project completion report prior to receiving final payment. Staff uses the completion report data to verify that the grantees have fulfilled the deployment and broadband service requirements of the grant and to evaluate program success.

Broadband providers also submit deployment and subscriber information in their annual updates to Communications Division for publication (in aggregated form) on the Broadband Map. Data fields include provider name, FCC Registration Number, census block, subscriber addresses, broadband technology, downstream and upstream bandwidth, total connections, and consumer connections. Broadband Map updates do not require submission of Form 477.

Broadband Map data are used by Staff, broadband providers, consortia members, stakeholders, and member of the public to view eligibility for the CASF program and more broadly to research existing broadband and mobile coverage (or lack thereof). As previously noted, this information may also be used instead of Form 477 as proof of service in an ROFR claim.

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[14] *See* In re Establishing the Digital Opportunity Data Collection; Modernizing the Form 477 Data Program, Report and Order and Second Further Notice of Proposed Rulemaking, WC Docket Nos. 19-195, 11-10 (rel. Aug. 6, 2019).

Separate from the ROFR and Broadband Map processes, CASF also allows for an application "challenge" process. CASF project applications can be challenged by an existing broadband provider submitting evidence to Staff that it already serves at least one subscriber in any of the challenged project census blocks. If the challenge is valid, the CASF applicant must either withdraw the project application entirely or remove the challenged census block(s) from the proposed project and submit a revised application. Form 477 is not required for the challenge process.

Staff issued recommendations relating to data submission requirements in the October 26, 2020 Data Proposal. Staff recommends eliminating the requirement for submission of Form 477 and replacing it with similar but not identical data submission requirements. According to Staff, this approach would have several advantages:

- Higher geospatial accuracy and precision, overcoming limits of the census-based mapping used in Form 477
- Incentivize broadband providers to submit more accurate and up to date information for the annual Broadband Map update
- Increased accuracy and usability of the Broadband Map
- Provide valuable data on the penetration of broadband acceptance, which is essential to evaluation of program success

Staff submit that if the recommended modifications are made, removal of the Form 477 submission requirement would have no negative impact.

1.2.2. Open Access

Last-mile infrastructure is the final leg of a broadband connection between a broadband service provider's distribution point and a customer's premises.

Local internet service providers (ISP) that supply customers are considered last-mile providers.[15]

Middle-mile infrastructure is the portion of the broadband network that connects last-mile distribution infrastructure to other network service providers, major telecommunications carriers, and the core internet.[16] Middle-mile networks can cut across census tract, municipal, or even county boundaries and are able to transport large quantities of bandwidth between network endpoints. The infrastructure may also connect towers (wireless services), community anchor institutions, and other large customers. Middle-mile infrastructure does not typically connect to individual end-users.

The high cost of building middle-mile networks is a barrier for service providers to enter new markets, especially in rural and Tribal areas; costs are prohibitive and frequently require outside funding (grants or other programs).[17] Open access networks are one approach to increasing deployment in unserved areas.

In open access networks, a broadband provider offers ISPs and other entities nondiscriminatory access to its middle-mile infrastructure on reasonable and equal terms.[18] The middle-mile network is thus available for multiple last

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[15] ISPs are companies providing internet access to consumers and businesses, acting as a bridge between customer and infrastructure owners for dial-up, cable modem and digital subscriber line services.

[16] Last-mile infrastructure extends from the ISP's distribution node to the end user, whereas the middle-mile infrastructure would encompass the network infrastructure between the distribution nodes.

[17] *See* Staff Proposal (Oct. 26, 2020) at 5; Opening Comments of CETF (Nov. 6, 2020) at 5.

[18] This is the definition of open access used in this decision. There is no single, universally agreed upon definition of open access. The Commission may use other definitions in other contexts.

mile providers, who in turn have billing relationships with end users. The broadband provider offering access to its middle-mile network may also publicly post its pricing, standard terms and conditions, and other information to further support equal access.

Open access requirements have been incorporated into CASF grants in some instances. For example, the Resolution authorizing the Klamath River Rural Broadband Initiative (KRRBI) states: "The KRRBI middle mile network shall be made available for wholesale access to other potential CASF grantees at reasonable rates and terms. These reasonable rates shall be at cost."[19] The Phase I-A decision in this proceeding regarding leveraging the federal RDOF program also incorporates an open access requirement.[20]

In its October 26, 2020 Open Access Proposal, Staff recommends that CASF grant recipients be required to offer open access for middle-mile infrastructure funded by the program. Staff also addressed the issue of open access in the Phase I-A staff proposal on leveraging the federal RDOF program, issued on October 1, 2020.

Under the Open Access Proposal, open access would be required at any technically feasible point along a middle-mile network funded by CASF (unless doing so would exceed current or reasonably anticipated capacity limitations).

Grant recipients would be required to provide reasonable, equal, and non-discriminatory rates and terms for all entities seeking interconnection to middle-

[19] Resolution T-17418, p. 17. Available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M079/K379/79379916.PDF.

[20] *See* D.21-01-003, Decision Establishing Process for the California Advanced Services Fund to Leverage the Federal Rural Digital Opportunity Fund, adopted January 14, 2021. The open access requirement adopted in that decision is distinct from the requirement adopted in this decision, however.

mile infrastructure funded by CASF. Recipients would be further required to publicly post their pricing, tariffs (if applicable), and terms and conditions online, and to negotiate in good faith with all requesting parties making a bona fide request for interconnection or wholesale services.

2. Open Access Jurisdiction

The legislature directs the Commission to "develop, implement, and administer the California Advanced Services Fund program to encourage deployment of high-quality advanced communications services to all Californians that will promote economic growth, job creation, and the substantial social benefits of advanced information and communications technologies, consistent with this section and with the statements of intent in Section 2 of the Internet For All Now Act."[21] The open access requirement adopted here is fully consistent with Pub. Util. Code § 281 and Section 2 of the Internet For All Now Act, as described in Section 4 of this decision.

The Commission thus has authority to adopt the requirement as part of "develop[ing], implement[ing], and administer[ing]" the program – even though an open access requirement is not specifically called for in statute.[22] While the Legislature included many CASF program requirements in statute, the list of legislative requirements is not exhaustive.

Indeed, the Commission previously exercised its authority to adopt additional program requirements in furtherance of CASF program goals, finding that those requirements "provide guidelines for what constitutes a 'good'

[21] *See* Pub. Util. Code § 281(a).

[22] *See* Reply Comments of the Greenlining Institute and The Utility Reform Network (Nov. 13, 2020) at 3.

project."[23] The Commission similarly exercises its authority here to require open access in advancement of the goal of broadband deployment, as well as other statutory goals and state policies described in Section 4.

Some parties claim that an open access requirement infringes on federal authority over broadband or constitutes common carrier regulation of broadband.[24] These claims lack any merit. The CASF program is a voluntary state broadband deployment program, funded entirely by California ratepayers.[25] No federal rules preempt an open access requirement for CASF projects. The Commission's rules regarding CASF awards do not constitute "common carrier" regulation, as they do not apply to all carriers in the broadband industry.

The open access requirement only applies to a party that chooses to accept it. A CASF awardee may accept CASF open access requirements, or the awardee may refuse the CASF award if it does not wish to comply with open access requirements. Such voluntary program requirements are not unique. For example, in the Lifeline Proceeding (R.11-03-013), the Commission found that it may "requir[e] non-certificated fixed-VoIP providers to meet program

[23] For example, the Commission required projects to be completed within 12 or 24 months, required set pricing plans for two years after project completion, set maximum latency levels and minimum data levels, and required an affordable broadband plan for low-income customers. *See* D.18-12-018 at 63-65; *see also* Broadband Infrastructure Account Requirements, Guidelines and Application Materials, December 2018, Sec. 6.

[24] *See* Opening Comments of CCTA (Nov. 6, 2020) at 9; Opening Comments of Charter on the Assigned Commissioner's Scoping Memo and Ruling (Nov. 5, 2020) at 8-9.

[25] *See* Reply Comments of the Greenlining Institute and The Utility Reform Network (Nov. 13, 2020) at 5.

requirements and standards where participation by that provider is strictly voluntary."[26]

CCTA contends that the Staff Proposal failed to provide adequate notice of the open access requirement.[27] The Commission disagrees. The Staff Proposal provided sufficient notice of all the significant parameters of the open access requirement. As in all its rulemaking, the Commission was receptive to comments on the open access proposal from stakeholders.

Charter suggests that applying the open access requirement to any projects beyond new CASF applications could be retroactive.[28] The Commission finds that existing grants should not be modified to include a new open access requirement. However, requiring open access for future grant awards, including awards for currently pending applications, is not retroactive rulemaking. The open access requirement will thus be applied to all future grant awards, including to grants for pending applications.[29]

The Commission adopts an open access requirement for projects funded by the CASF Infrastructure Account as set forth in Section 4. The Commission has clear statutory authority to adopt this requirement.

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[26] *See* D.16-10-039 at 10-11.

[27] *See* Opening Comments of CCTA (Nov. 6, 2020) at 7-9.

[28] *See* Opening Comments of Charter (Nov. 6, 2020) at 10.

[29] The open access enforcement and reporting mechanisms adopted here will also apply to the state-federal leveraging funding recently authorized by the Commission in D.21-01-003. The possibility of adopting additional open access requirements for those funds was addressed in that decision, and thus is also not retroactive. This decision specifically notes all instances in which the requirements adopted here will also apply to grants for state-federal leveraging funds. The Commission does not otherwise modify the open access requirements for infrastructure funded by the state-federal leveraging grants.

3. Data Submission Requirements

The Commission adopts the below data submission modifications as set forth in Appendix A.[30]

3.1. Elimination of Form 477 Requirements

As noted by many parties, Form 477 does not meet the needs of the CASF program and should be replaced with other data submission requirements that are tailored to specific CASF implementation and oversight needs.[31] As an additional benefit, the CASF-specific data submission requirements adopted here will not be subject to change by the FCC, thus ensuring data continuity and limiting the potential for unnecessary complications in this state-level program.[32] Because the Commission will collect all necessary data independently of the FCC, this decision eliminates all requirements to submit Form 477, streamlining the ROFR and Completion Report processes.

For ROFR claims, Staff will continue to accept providers' Broadband Map updates as proof of existing broadband service, while no longer accepting Form 477. Making ROFR claims more dependent on Broadband Map data submissions[33] will incentivize providers to submit more accurate and complete Broadband Map updates. This will enable more efficient program

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[30] Redlines of the changes adopted are in Appendix B, which is provided as a courtesy to the reader.

[31] *See* Opening Comments of Cal Advocates (Nov. 6, 2020) at 3-4; Opening Comments of CETF (Nov. 6, 2020) at 2-5; Opening Comments of NBNCBC (Nov. 4, 2020) at 3; Opening Comments of NDC (Nov. 6, 2020) at 3; Opening Comments of Race (Nov. 6, 2020) at 1-2; Opening Comments of RCRC (Nov. 6, 2020) at 3; and Opening Comments of TURN and Greenlining (Nov. 6, 2020) at 2. Note: Cal Advocates calls for supplementing, not replacing, Form 477.

[32] *See* Opening Comments of TURN and Greenlining (Nov. 6, 2020) at 2.

[33] Broadband providers may still submit proof via other methods, as set forth in Appendix A, if the company has a video franchise under DIVCA, is an ILEC, or is a WISP.

administration by reducing wasted effort and avoiding disputes related to incorrectly designated broadband service status or ROFR eligibility.

3.2. Location Data and Subscriber Type

A key CASF-specific modification to the ROFR and completion report data submission requirements is the definition of end user locations and subscriber types. In their comments, parties express various positions on what types of subscribers should be considered by CASF. However, most call for CASF to consider a broader range of subscriber types than just households.[34] The Commission agrees. More comprehensive ROFR claims and completion reports – considering various subscriber types and containing more precise and easily processed location data files – will improve program implementation and evaluation.

While the primary program goal is to increase the number of households served, additional benefits to other types of end users are also relevant and important to monitor, particularly those that relate to "promot[ing] economic growth, job creation, and […] substantial social benefits" for Californians.[35] More granular location data will also result in a more precise Broadband Map, further reducing wasted effort associated with incorrect service designations. This effort is consistent with both the Governor of California's Executive Order N-73-20[36] and the California State Broadband Action Plan[37] to gather more granular data.

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[34] *See* Opening Comments of CETF (Nov. 6, 2020) at 5; NBNCBC (Nov. 4, 2020) at 4-5; and Cal Advocates (Nov. 6, 2020) at 2.

[35] Pub. Util. Code § 281(a).

[36] Executive Order N-73-20 available at https://www.gov.ca.gov/wp-content/uploads/2020/08/8.14.20-EO-N-73-20.pdf

[37] "*Broadband Action Plan 2020 - California Broadband For All*" available at https://broadbandcouncil.ca.gov/wp-content/uploads/sites/68/2020/12/BB4All-Action-Plan-Final.pdf

Finally, standardized location data will enable Staff to evaluate ROFR claims and process program data more efficiently.

The Commission therefore modifies all existing references to households in the completion reports and ROFR claims to instead refer to serviceable locations, with the subscriber type (*e.g.*, low-income household, other household, housing unit, commercial, agricultural, anchor institution, etc.) clearly designated.[38] Staff will issue a list of subscriber types to be used and may update the list as needed.

A serviceable location, also simply referred to as a location, shall be identified by street address (if one exists) and latitude/longitude coordinates, with the census block code also noted. Providers must also designate the subscriber type, as described above. Location data must be submitted via a comma-separated value (.csv) or geospatial file (e.g., shapefile, .kml, or .kmz file). Staff may issue one or more templates for these submissions and update them as needed.

3.3. Project Area

To increase deployment and support efficient program administration, more granularity is also needed for areas claimed under ROFR. Under existing rules, ROFR claims are based on census blocks: a provider must commit to serving all households within a claimed census block. However, a census block can cover hundreds of square miles or may contain geographic barriers to deployment that are economically infeasible to cross (*e.g.*, rugged or mountainous terrain).[39]

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[38] A household is defined as a primary residence that is occupied. A housing unit may or may not be a primary residence and may or may not be occupied.

[39] *See* Opening Comments of NDC (Nov. 6, 2020) at 2.

In such census blocks, a provider may be incentivized to submit an ROFR claim yet only deploy infrastructure to serve a portion of the census block, in violation of its ROFR commitment. Making matters worse, once a portion of the census block has broadband service, the remainder becomes ineligible for CASF funding. Alternatively, the provider may not participate in ROFR at all because it is unwilling to commit to serving the entire census block. Indeed, there has yet to be a single valid ROFR claim submitted under the CASF program.

The current lack of granularity can thus result in either inability of some Californians to receive broadband service under CASF, or less private sector investment due to the economic infeasibility of an ROFR claim. To instead promote increased service and more private investment, going forward an area claimed under ROFR shall consist of a collection of individual locations that define a specific project area, rather than being limited to only census block geography.

The project area must be a contiguous area that includes all serviceable locations (as defined in Section 3.2 above) within the area. The following data must be submitted:[40]

- Shapefile of project area.
- Collection of individual locations submitted as described in Section 3.2.

Reflecting the switch from households to locations and from census blocks to project areas, the broadband provider making an ROFR claim must now commit to serving every location within its claimed area, not every household within claimed census blocks. Additionally, a WISP shall be eligible to claim ROFR if it has at least one unserved subscriber in-service in the claimed area,

[40] Staff may issue one or more templates for these data submissions and update them as needed.

rather than in claimed census block(s). Furthermore, by submitting an ROFR claim for a partial census block, a broadband provider waives its right to file a CASF challenge for the remainder of the census block that it will not serve. This will ensure consistent treatment of project areas and avoid disqualifying unserved locations from CASF. To ensure program consistency, the Commission also modifies project completion reports to refer to speed tests in the "project area" rather than in a given census block.

3.4. Service Status and Speed Tests

As with other location-based data, speed test data in completion reports must now be provided in a geospatial file (.kmz/.kml or shapefile) or .csv file for more efficient processing.

Cal Advocates, CETF, and NDC support speed testing at multiple addresses within a given project area to ensure that service across the project area achieves the required minimum speed.[41] At the same time, testing every individual address would be overly burdensome. Going forward, providers must therefore conduct speed tests at a representative sample of locations within the project area – including locations at the edge of the project area. Staff may issue a template for speed test data submissions.

Several parties, including AT&T and NDC, argue for new methodologies to be considered for assessing available speed, or for subscriber speed to be tested in addition to the technically available speed.[42] The Commission declines to adopt such changes at this time, though they may be considered in later

[41] *See* Opening Comments of Cal Advocates (Nov. 6, 2020) at 3-4; Reply Comments of CETF (Nov. 13, 2020) at 2; and Reply Comments of NDC (Nov. 13, 2020) at 2-3.

[42] *See* Reply Comments of NDC (Nov. 13, 2020) at 2-3; and Opening Comments of AT&T (Nov. 6, 2020) at 5-6.

phases of this proceeding. Some parties also contend that the Commission should revisit its definition of when a location is considered "served." Any such revisions are likewise beyond the scope of this decision.

3.5. Subscription Data

Some parties call for the Commission to collect additional data on broadband subscriptions, particularly by low-income customers.[43] The Commission is committed to environmental and social justice, as outlined in the Environmental and Social Justice (ESJ) Action Plan,[44] and agrees that the number of low-income subscribers (along with the number of potential low-income subscribers) is an important metric for evaluating program success. In their completion reports, grantees must therefore include both the number of low-income customers and the number of customers subscribing to low-income plans in the project area.[45] Grantees may submit their best estimates of the number of low-income customers in the project area, if it is impracticable to determine the exact number.[46]

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[43] *See* Opening Comments of TURN and Greenlining (Nov. 6, 2020) at 3; and Opening Comments of Cal Advocates (Nov. 6, 2020) at 4.

[44] Among other goals, the ESJ Action Plan includes "Strive to improve access to high-quality water, communications, and transportation services for ESJ communities" and "Monitor the CPUC's environmental and social justice efforts to evaluate how they are achieving their objectives." *See* ESJ Action Plan (Feb. 21, 2019) at 16 and 19. Available as of this writing at https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/UtilitiesIndustries/Energy/EnergyPrograms/Infrastructure/DC/Env%20and%20Social%20Justice%20ActionPlan_%202019-02-21.docx.pdf.

[45] Low-income plans are currently defined as subscriptions costing no more than $15 per month, consistent with the definition in Section 2.2 of Appendix A (Funding Criteria). Low-income customers are households with incomes that would qualify for California Alternate Rates for Energy (CARE) pursuant to D.16-11-022 at 18 and Pub. Util. Code §739.1(a). For a household of four, the income threshold is $52,400 through May 31, 2021. The threshold is updated regularly in the CARE proceeding, A.19-11-003, et. al. As of this writing, current CARE income guidelines are available at https://www.cpuc.ca.gov/lowincomerates/.

[46] For example, census block level data may be used to develop an estimate if necessary.

Additionally, more granular subscription data will also be valuable for assessing broadband penetration and evaluating program success in bringing the benefits of broadband to all Californians. Completion reports must therefore also include the actual number of subscribers by subscriber type[47] and subscribed speed, as well as the potential number of subscribers of each type that could be served using the CASF project's existing facilities.

The Commission modifies the subscriber and service data submissions to facilitate more effective program administration and implementation. Staff may issue a template for providers to meet these reporting requirements.

4. Open Access for Middle-Mile Infrastructure

4.1. Policy

In Pub. Util. Code § 281, the Legislature set a goal that CASF "provide broadband access to no less than 98 percent of California households in each consortia region" and directed the Commission "to encourage deployment of high-quality advanced communication services to all Californians that will promote economic growth, job creation, and the substantial social benefits of advanced information and communications technologies."[48] Several parties recognize that an open access requirement advances these statutory goals.[49] The Commission agrees.

As TURN and Greenlining observe, open access makes essential middle-mile infrastructure more accessible to last-mile providers wishing to serve nearby locations, which supports deployment of broadband to more

[47] See Section 3.2, Location Data and Subscriber Type.

[48] *See* Pub. Util. Code § 281(a) and § 281(b)(1)(A).

[49] *See* TURN and Greenlining Reply Comments (Nov. 13, 2020) at 3-4; Cal Advocates Opening Comments (Nov. 6, 2020) at 5; CETF Opening Comments (Nov. 6, 2020) at 5; RCRC Opening Comments (Nov. 6, 2020) at 3; NBNCBC Opening Comments (Nov. 4, 2020) at 3-4.

Californians.[50] The increased broadband coverage will provide vital connectivity to residents that will facilitate economic growth, job creation, and other social benefits – particularly in light of the marked shift to virtual activities and services precipitated by the COVID-19 pandemic. Open access networks can also lower prices while increasing competition and customer choice, without requiring additional public subsidies.[51] Open access will thus contribute to increased deployment higher-quality service, and economic and social benefits, consistent with the statutory direction in Pub. Util. Code § 281.

An open access requirement will also support state policy as set forth in Pub. Util. Code § 709(f) and 709(g): "[t]o promote lower prices, broader consumer choice, and avoidance of anticompetitive conduct [and to] remove the barriers to open and competitive markets and promote fair product and price competition in a way that encourages greater efficiency, lower prices, and more consumer choice."

CASF must also be implemented in a manner consistent with the statements of intent of the Internet For All Now Act.[52] These statements include that "[i]t is the policy of the state to encourage collaboration among stakeholders and to promote public-private partnerships to harness the expertise and strengths of all partners to serve the public interest."[53] Open access enables greater private leveraging of public funds and is consistent with this state policy of encouraging collaboration in advancing broadband deployment.

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[50] *See* TURN and Greenlining Reply Comments (Nov. 13, 2020) at 3-4.

[51] *See* Cal Advocates Opening Comments (Nov. 6, 2020) at 5; Reply Comments of the Public Advocates Office on the Staff Proposal on State-Federal Broadband Infrastructure Funds Leveraging (October 22, 2020) at 2.

[52] *See* Pub. Util. Code § 281(a).

[53] *See* Assembly Bill 1665 (Garcia), Ch. 851, Stats. 2017, Sec. 2(e).

The Commission therefore adopts an open access requirement for all middle-mile infrastructure funded by CASF in the future, as set forth in Section 4.2.

4.2. Open Access Requirements

An open access requirement will apply to the middle-mile segment(s) of all projects funded by CASF grants going forward, as set forth in Appendix A. This includes projects proposed in pending applications that have not yet been granted. Under the open access requirement, CASF grant recipients must offer nondiscriminatory interconnection and internet access at reasonable and equal rates and terms to any interested communications service provider wherever technically feasible.

Staff shall implement the open access requirement adopted herein by incorporating language consistent with the requirement into future CASF grant approval letters and draft resolutions. One example of guidelines that are consistent with this decision is the set of nondiscrimination and interconnection obligations for participants in the federal Broadband Technology Opportunities Program.[54] The Commission delegates ministerial authority to Staff to develop open access language that contains the provisions specified in Attachment E. The Commission also authorizes Staff to adjust the open access language to respond to changing conditions, so long as the language remains consistent with the Commission's directives in this decision.

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[54] *See* Fact Sheet: Nondiscrimination and Interconnection Obligations (Nov. 10, 2010). Broadband Technology Opportunities Program, BroadbandUSA, National Telecommunications and Information Administration, United States Department of Commerce. Developed pursuant to 47 U.S. Code § 1305(j). Available as of this writing at https://www2.ntia.doc.gov/files/Interconnection_Nondiscrimination_11_10_10_FINAL.pdf.

4.2.1. Technical Feasibility

Open access will be required for any technically feasible interconnection point along the middle-mile network.[55] As several parties noted, not all locations will be technically feasible.[56] While every location is unique, the Commission offers clarification by way of several common examples. If interconnection would exceed current or reasonably anticipated capacity limitations, it is infeasible. A fiber run over many miles with no splice points or a location that is physically inaccessible would also be infeasible.

Examples of feasible location types were provided in comments by TURN and Greenlining: wherever fiber is spliced, any previously defined interconnection point, and wherever a portion of the CASF funded middle mile infrastructure has been damaged and must be repaired.[57] Many different types of broadband technologies can provide open access functionality; the open access requirement is not a mandate to use any specific type of technology. Broadband providers must make a good-faith effort to find a technically feasible solution where possible.

4.2.2. Pricing, tariffs, terms, and conditions

To promote non-discriminatory treatment, CASF grant recipients must offer tiered pricing or a range of options to fit different business models; offerings must be the same for all similarly situated last-mile service providers.[58]

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[55] Interconnection is defined here as the physical interconnection of the recipient's facilities to a requesting party's facilities for the exchange of traffic.

[56] *See* Opening Comments of Small LECs (Nov. 6, 2020) at 2; Opening Comments of Frontier (Nov. 6, 2020) at 2; and Opening Comments of Charter (Nov. 6, 2020) at 4.

[57] *See* Opening Comments of TURN and Greenlining (Nov. 6, 2020) at 6.

[58] Types of last-mile service providers that may request interconnection include but are not limited to ISPs, government agencies, public anchor institutions, and nonprofit organizations.

To further promote non-discriminatory treatment, a framework for determining pricing, tariffs (if applicable), and standard terms and conditions must be provided to the Commission's Communications Division. This submission may be submitted confidentially. Terms and conditions may include any essential elements of network operations, such as cybersecurity, processes and payments to meet future capital investment needs, and processes and payments to address operations and maintenance.

Many parties express general support for requiring reasonable pricing.[59] However, several providers express concern at being required to offer open access at cost.[60] NDC calls for basing requirements on degree of funding: projects over 70% funded by CASF would be required to provide open access at cost, while all others would be exempt from any open access requirement.[61] TURN, Greenlining, and Small LECs question how "at cost" would be defined: TURN and Greenlining request greater specificity, while Small LECs suggests avoiding the issue and instead relying on the requirement for reasonable, equal, and nondiscriminatory access.[62] The Commission clarifies that pricing need not be at cost. However, the requirement for reasonable rates and terms will apply; grant recipients should not profit significantly from offering access to publicly funded middle-mile infrastructure.

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[59] *See* Opening Comments of CETF (Nov. 6, 2020) at 5; Opening Comments of NBNCBC (Nov. 4, 2020) at 3; Opening Comments of RCRC (Nov. 6, 2020) at 3; Opening Comments of TURN and Greenlining (Nov. 6, 2020) at 4; Opening Comments of Small LECs (Nov. 6, 2020) at 2.

[60] *See e.g.,* Opening Comments of Frontier (Nov. 6, 2020) at 1-2; Opening Comments of Small LECs (Nov. 6, 2020) at 2.

[61] *See* Opening Comments of NDC (Nov. 6, 2020) at 5.

[62] *See* Opening Comments of Small LECs (Nov. 6, 2020) at 2; Opening Comments of TURN and Greenlining (Nov. 6, 2020) at 5.

Some parties also contend that equal pricing is not economically feasible in light of different physical and network conditions in different locations, or in light of different service needs on the part of the requesting entity.[63] The Commission clarifies that pricing can vary to reflect physical or network conditions, service level and type, or other conditions that result in higher interconnection costs, so long as it is reasonable. While individual circumstances may vary, recipients must negotiate in good faith with all requesting parties making a bona fide request for interconnection or wholesale services.

4.2.3. Duration of Open Access Obligation

Frontier and Charter[64] suggest that there should be a sunset on open access requirements. The Commission disagrees that the obligation to offer access to publicly funded infrastructure should be limited to a specific number of years. The obligation shall sunset at the end of life of the infrastructure.

4.2.4. Reporting and Compliance

Reporting and enforcement of the decision are essential to ensure compliance with the open access requirement. Grant recipients subject to the open access requirement must therefore report on all open access requests and executed service agreements as part of their confidential CASF annual reports. The open access reports must include the following: date of request, requesting party, location of requested interconnection, service requested, outcome of request, pricing, tariffs (if applicable), and terms and conditions. Staff may issue a template for these reports.

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[63] *See* Opening Comments of Frontier (Nov. 6, 2020) at 3; Opening Comments of NDC (Nov. 6, 2020) at 4; and Opening Comments of TURN and Greenlining at 5.

[64] *See* Reply Comments of Charter (Nov. 13, 2020) at 3 and Opening Comments of Frontier (Nov. 6, 2020) at 3.

If a last-mile provider requesting open access believes that a CASF recipient is not negotiating in good faith, the last-mile provider may file a Complaint with the Commission. If the Commission finds that a CASF recipient has failed to comply with the open access requirement for a given project, the CASF recipient may be penalized, ordered to reimburse some or all of the CASF grant funding received for the project, or face other consequences as appropriate.

The above reporting requirements and decision enforcement will also apply to the state-federal leveraging grants authorized by the Commission in D.21-01-003.

5. Comments on Proposed Decision

The proposed decision of Commissioner Guzman Aceves in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on February 22, 2021, and reply comments were filed on March 1, 2021, by Cal Advocates, CCTA, Charter, NDC, and TURN. Some commenters requested changes and clarifications in certain areas of the proposed decision. Non-substantive changes in response to some comments are interspersed throughout the decision.

6. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Joanna Gubman is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. Form 477 is a data collection form used by the FCC to determine areas that are served by telecommunications providers; it is currently a primary source of data used by the federal government for identifying underserved areas.

2. Through Form 477, the FCC collects information about broadband connections to end-user locations, wired and wireless local telephone services, and interconnected Voice over Internet Protocol (VoIP) services nationwide.

3. The FCC recently acknowledged that the fixed and mobile broadband data collected on Form 477 is insufficient to support its universal service policy goals and has initiated a multi-year process to replace the form with a new data collection program.

4. Form 477 does not meet the implementation or oversight needs of the CASF program.

5. The Broadband Map is used to track existing broadband service and determine whether a location is eligible for CASF. Staff updates the Broadband Map annually with data from broadband providers.

6. A census block may cover hundreds of square miles or may contain geographic barriers to deployment that are economically infeasible to cross.

7. Requiring ROFR claims to be submitted for entire census blocks incentivizes broadband providers either to not submit a claim, or to submit a claim and then fail to serve the complete census block.

8. There has never been a valid ROFR claim submitted under the CASF program.

9. Allowing a broadband provider to submit an ROFR claim for a portion of a census block – while simultaneously waiving its right to challenge the unclaimed portion of the census block – will encourage more private funding of broadband infrastructure and ensure that unserved locations remain eligible for CASF.

10. Conducting speed tests at a representative sample of locations within a project area, including locations at the edge of the project area, will better ensure that service across the project area achieves the required minimum speed.

11. Modifying the ROFR and Completion Report data submission requirements as set forth in Appendix A will improve geospatial accuracy and precision, incentivize broadband providers to submit more accurate and up to date information for the annual Broadband Map update, increase accuracy and usability of the Broadband Map, reduce wasted effort associated with incorrect service designations, support achievement of the Commission's environmental and social justice goals, provide more comprehensive data on broadband penetration that will be valuable for program evaluation, support more efficient program administration and implementation, and ensure data continuity and consistency across the CASF program.

12. Data submission and reporting templates issued by Staff will improve the efficiency of program administration.

13. For the purposes of this decision, an open access requirement is defined as a requirement for broadband providers to offer nondiscriminatory interconnection and internet access at reasonable and equal rates and terms to any interested communications service provider wherever technically feasible.

14. The high cost of building middle-mile networks is a barrier for broadband service providers to enter new markets, especially in rural and Tribal areas.

15. An open access requirement for CASF-funded middle-mile infrastructure will make that infrastructure more accessible to last-mile providers wishing to use it to serve nearby locations.

16. Tiered pricing or ranges of options to fit different business models and equivalent pricing for similarly situated last-mile service providers will promote non-discriminatory treatment of last-mile communications service providers.

17. Confidential submission to Communications Division of a framework for determining pricing, tariffs (if applicable), and standard terms and conditions

will promote non-discriminatory treatment of last-mile communications service providers.

18. An open access requirement for CASF-funded middle-mile infrastructure can increase competition, customer choice, service quality, broadband access, and affordability, without increasing program costs.

19. An open access requirement is not a mandate to use any specific type of broadband technology.

20. Increased broadband access will facilitate economic growth, job creation, and other social benefits.

21. Open access is infeasible in some cases.

22. The reporting and enforcement processes for open access adopted herein will ensure compliance with the CASF open access requirements of this decision and of D.21-01-003.

Conclusions of Law

1. The Commission should not rely on the FCC Form 477 for CASF program implementation.

2. The Commission should collect information on the number of low-income subscribers to advance the Commission's ESJ Action Plan.

3. Pub. Util. Code § 281(b)(1)(A) sets the goal of CASF: "to approve funding for infrastructure projects that will provide broadband access to no less than 98 percent of California households in each consortia region."

4. Pub. Util. Code § 281(a) directs the Commission to "develop, implement, and administer the California Advanced Services Fund program to encourage deployment of high-quality advanced communication services to all Californians that will promote economic growth, job creation, and the substantial social benefits of advanced information and communications technologies, consistent

with [Section 281] and with the statements of intent in Section 2 of the Internet For All Now Act."

5. The CASF program should prioritize service to households pursuant to Pub. Util. Code § 281(b)(1)(A), yet also consider benefits to other types of end users that can "promote economic growth, job creation, and […] substantial social benefits" to Californians pursuant to Pub. Util. Code § 281(a).

6. The CASF program should collect data on all subscriber types, not just households.

7. To better evaluate CASF program success in achieving the goals of Pub. Util. Code § 281(a), the Commission should collect data on the degree to which potential broadband subscribers of various types sign up for service, and at what speeds.

8. The CASF program should allow broadband providers to make ROFR claims for a project area that is contiguous and contains all locations that lie within its boundaries. The Commission should no longer require ROFR claims to be based on census blocks.

9. A broadband provider making an ROFR claim should commit to serving every location within its claimed area, not every house within claimed census blocks.

10. A broadband provider making an ROFR claim covering a portion of a census block should waive its right to file a CASF challenge for the remainder of that census block.

11. For their completion reports, broadband providers should conduct speed tests at a representative sample of locations within a project area, including locations at the edge of the project area.

12. The Commission should collect the data necessary to conduct CASF program implementation and oversight, as set forth in Appendix A.

13. Data should be submitted to Staff in standardized formats as set forth in Appendix A. Staff should have discretion to develop templates for data submission and reporting as necessary and discretion to update the templates as needed.

14. The Commission should further state policy pursuant to the Internet For All Now Act (Assembly Bill 1665 (Garcia), Ch. 851, Stats. 2017, Sec. 2(e)), "to encourage collaboration among stakeholders and to promote public-private partnerships to harness the expertise and strengths of all partners to serve the public interest."

15. Pursuant to Pub. Util. Code § 709(f), it is state policy "[t]o promote lower prices, broader consumer choice, and avoidance of anticompetitive conduct."

16. Pursuant to Pub. Util. Code § 709(g), it is state policy "[t]o remove the barriers to open and competitive markets and promote fair product and price competition in a way that encourages greater efficiency, lower prices, and more consumer choice."

17. An open access requirement for CASF-funded middle-mile infrastructure is consistent with the statutes applicable to CASF and should further the goals and policies they set forth.

18. The Commission should apply an open access requirement to CASF grants awarded on or after the effective date of this decision.

19. Broadband providers should not profit significantly from offering access to middle-mile infrastructure that is publicly funded through CASF, for the duration of the lifetime of that infrastructure.

20. CASF grant recipients providing open access should offer tiered pricing or ranges of options to fit different business models and equivalent pricing for similarly situated last-mile service providers – including pricing, tariffs (if applicable), and standard terms and conditions.

21. The Commission should allow prices, tariffs (if applicable), terms, and conditions for last-mile provider open access to middle-mile infrastructure to vary depending on local circumstances and on the services needed by the last-mile provider to ensure that prices, tariffs (if applicable), terms, and conditions are reasonable.

22. CASF grant recipients providing open access pursuant to this decision should confidentially submit to Staff a framework for determining pricing, tariffs (if applicable), and standard terms and conditions.

23. Broadband providers should be required to offer open access as set forth herein to last-mile internet service providers requesting to use CASF-funded middle-mile infrastructure, where technically feasible. This requirement should apply if the CASF funding was awarded on or after the effective date of this decision; previously-funded infrastructure should not be affected by this requirement.

24. Broadband providers that own or operate CASF-funded middle-mile infrastructure should make a good-faith effort to find a technically feasible solution for all requesting parties making a bona fide request for interconnection to or wholesale services from that infrastructure.

25. Broadband providers that own or operate CASF-funded middle-mile infrastructure should negotiate in good faith with all requesting parties making a bona fide request for interconnection to or wholesale services from that infrastructure.

26. The Commission should require broadband providers to report on their compliance with open access requirements, as set forth in Appendix A. This requirement should also apply to recipients of state-federal leveraging funds pursuant to D.21-01-003.

27. The open access requirements adopted in D.21-01-003 should not be otherwise modified.

O R D E R

IT IS ORDERED that:

1. The California Advanced Services Fund Broadband Infrastructure Grant Account rules are modified and adopted as set forth in Appendix A.

2. Staff shall implement the data submission modifications and reporting requirements adopted in this decision, including developing and updating any templates necessary for efficient program administration.

3. Broadband providers must offer open access to last-mile communications service providers requesting to use middle-mile infrastructure funded by California Advanced Services Fund (CASF) grants, as set forth herein. This requirement only applies to middle-mile infrastructure funded by CASF grants awarded on or after the effective date of this decision.

4. California Advanced Services Fund grant recipients providing open access pursuant to this decision must confidentially submit to Staff a framework for determining pricing, tariffs (if applicable), and standard terms and conditions.

5. Broadband providers subject to an open access requirement pursuant to this decision or pursuant to D.21-01-003 must report on all open access requests and negotiations as set forth in Appendix A.

6. Staff shall incorporate an open access clause consistent with this decision in all CASF grants it recommends or awards on or after the effective date of this decision.

7. Rulemaking 20-08-021 remains open to consider the issues identified in the Scoping Memo for Phase II and Phase III.

This order is effective today.

Dated March 4, 2021, at San Francisco, California.

MARYBEL BATJER
President
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
DARCIE HOUCK
Commissioners