

Date of Hearing: August 3, 2020

ASSEMBLY COMMITTEE ON COMMUNICATIONS AND CONVEYANCE

Miguel Santiago, Chair

SB 1130 (Lena Gonzalez) – As Amended July 27, 2020

SENATE VOTE: 30-9

SUBJECT: Telecommunications: California Advanced Services Fund

SUMMARY: Makes numerous changes to the California Advanced Services Fund (CASF). Specifically, **this bill:**

- 1) Revises the goal of CASF to, no later than December 31, 2024, to approve funding for infrastructure projects that will provide high-capacity, future-proof infrastructure, based on current engineering and scientific information available at the time of the CASF program application to no less than 98 percent of California households in each consortia region, as identified by the California Public Utilities Commission (CPUC) on or before January 1, 2017.
- 2) Revises the definition of “unserved” for purposes of program eligibility to an area for which at least 90 percent of the population has no facility-based broadband provider offering at least one tier of broadband service at speeds of at least 25 megabits per second (mbps) downstream, 25 mbps upstream, and a latency that is sufficiently low to allow real-time interactive applications.
- 3) Requires the CPUC, in approving infrastructure projects, to do all of the following:
 - a) Approve projects with a goal of providing high-capacity, future-proof infrastructure to households that are in unserved areas or unserved high-poverty areas by an existing facility-based broadband provider;
 - b) Prioritize projects in unserved areas and unserved high-poverty areas where internet connectivity is available only at speeds at or below 6 mbps downstream and 1 mbps upstream or areas with no internet connectivity;
 - c) Ensure that no awardee receives a grant pursuant to this bill for an infrastructure project for which the awardee has already received the full cost of the project from a federal grant; and,
 - d) Ensure that all approved projects can be completed with existing program resources without increasing the surcharge on telephone consumers.
- 4) Removes the CPUC’s existing authority to collect an amount higher than \$66 million a year if it determines that collecting a higher amount in any year will not result in an increase in the total amount of all surcharges collected from telephone customers that year.

- 5) Reduces the requirement on the CPUC to annually offer an existing facility-based broadband provider the opportunity to demonstrate that it will deploy broadband or upgrade existing facilities to a delineated unserved area from 180 to 90 days.
- 6) Specifies that an existing facility-based broadband provider may, but is not required to, apply for funding from the Broadband Infrastructure Grant Account (Infrastructure Account) to make an upgrade, as specified, if it can demonstrate that they are financially incapable of self-financing the necessary upgrades.
- 7) Requires projects eligible for grant awards to meet both of the following requirements:
 - a) The project deploys infrastructure capable of providing broadband access at speeds of a minimum of 25 mbps downstream and 25 mbps upstream, and a latency that is sufficiently low to allow real-time interactive applications to unserved areas and unserved high-poverty areas; and,
 - b) All or a significant portion of the project deploys last-mile infrastructure to unserved areas and unserved high-poverty areas. For a project that includes funding for middle-mile infrastructure, the CPUC shall verify that the proposed middle-mile infrastructure is indispensable for accessing the last-mile infrastructure.
- 8) Specifies that a project that deploys middle-mile infrastructure shall not be eligible for grant funding unless it is an open access project, as specified.
- 9) Eliminates the eligible for an individual household or property owner to apply for grants to offset the costs of connecting the household or property to an existing or proposed facility based broadband provider, as specified.
- 10) Requires the CPUC, in approving a project, to require wholesale access for other wireless services to ensure they obtain capacity from the approved project, as specified.
- 11) Requires the CPUC to determine the extent to which a last-mile provider receiving funds is required to provide wholesale access to other wireline providers, taking into consideration the financial challenges of serving unserved areas and unserved high-poverty areas, the ability for the applicant to recover its investment costs, and whether wholesale access is necessary to provide affordable services to households and businesses.
- 12) Requires the CPUC to oversee rates charged by an approved open access project to ensure that the rates are just and reasonable.
- 13) Prohibits a specified open access project from selling its own broadband service.
- 14) Eliminates the requirement on a local governmental agency that makes them eligible to apply for infrastructure grant only if the infrastructure project is for an unserved household or business, after the CPUC has conducted an open application process, and no other eligible entity applied.
- 15) Specifies that awarded grants may pay for the cost incurred by an existing facility-based broadband provider to upgrade its existing facilities to provide for interconnection if the

existing facility-based broadband provider can demonstrate to the CPUC that it is financially infeasible for it to upgrade without grant support.

- 16) Defines “area” to mean a census block or aggregation of adjacent census blocks, or a geographic area identified in a shapefile published by the CPUC.
- 17) Defines “future-proof infrastructure” to mean data networks that, once built, do not require new construction that involves significant public works in order to deliver higher speeds that mirror advancements in network equipment. A future-proof infrastructure shall have sufficient capacity to deliver to end users 100 mbps downstream, 100 mbps upstream, and a latency averaging at or less than 20 milliseconds to allow real-time interactive applications.
- 18) Defines “open access project” to mean a wholesale network operation that serves multiple service providers who resell broadband access services.
- 19) Defines “shapefile” means a file format for storing, depicting, and analyzing geospatial data depicting broadband coverage and that consists of several component files, such as a Main file (.shp), an Index file (.shx), and a dBASE table (.dbf).
- 20) Defines “unserved high-poverty area” to mean an unserved area in a census tract with a poverty rate of at least 20 percent, as measured by the most recent five-year data series available from the American Community Survey of the United States Census Bureau as of December 31, 2020.
- 21) Extends the sunset on CASF and its reporting requirements until January 1, 2026.
- 22) Makes additional technical and clarifying changes.

EXISTING LAW:

- 1) Requires the CPUC to administer the CASF program to deploy high-quality, advanced communications services that will promote economic growth, job creation, and the substantial social benefits of advanced information and communications technologies. (Public Utilities Code (PUC) Section 281(a))
- 2) Specifies that the goal of the CASF program is to approve funding no later than December 31, 2022, for infrastructure projects that will provide broadband access to no less than 98 percent of California households in each broadband consortia region in the state. The CPUC is responsible for achieving this goal. (PUC Section 281(b)(1)(A))
- 3) Defines an “unserved household” for the purposes of the CASF as a household for which no facility-based broadband provider offers broadband service at speeds of at least six mbps downstream and one mbps upstream. (PUC Section 281(b)(1)(B))
- 4) Requires the CPUC to do the following when prioritizing CASF grants to eligible projects:
 - a) Approve projects that provide last-mile broadband access to households that are unserved by an existing facilities-based broadband provider, as specified; and,

- b) Give preference to projects in areas where internet connectivity is only available through dial-up service, unserved by any form of wireline or wireless facilities-based broadband service or areas with no internet connectivity. (PUC Section 281(b)(2))
- 5) Requires the CPUC to give an incumbent facilities-based broadband provider 180 days to demonstrate that it intends to install or upgrade infrastructure to expand access to an area proposed for CASF project funding. These incumbent providers may apply for CASF monies to fund broadband expansion projects. (PUC Section 281(f)(4))
- 6) Establishes various accounts within the CASF to help fund specific broadband deployment and adoption goals, and authorizes the CPUC to collect a surcharge on consumers' telecommunications bill to fund the CASF. Under existing law, the CPUC may collect a total of \$330 million. Between January 1, 2018, and December 31, 2022, the CPUC may not collect more than \$66 million in surcharges annually unless it determines that doing so would not result in an increase in the total amount of surcharges collected that year. CASF monies will be available upon appropriation of the Legislature and may be used to fund the CPUC's administrative costs for the program. (PUC Section 281(d-e))
- 7) Specifies the criteria a project must meet to obtain funds from the Infrastructure Account, including the following requirements:
 - a) The project deploys infrastructure capable of providing broadband speeds of a minimum of 10 mbps downstream and 1 mbps upstream to unserved households in census blocks where no provider offers access at speeds of at least 6 mbps downstream and 1 mbps upstream;
 - b) All or a significant portion of the project deploys last-mile infrastructure to provide service to unserved households. Projects that only deploy middle mile infrastructure are not eligible for grant funding. For a project that includes funding for middle-mile infrastructure, the CPUC shall verify that the proposed middle-mile infrastructure is indispensable for accessing the last-mile infrastructure; and,
 - c) The project is not located in a census block for which an existing provider has accepted federal Connect America Fund monies, unless certain conditions are met. (PUC Section 281(f)(5))
- 8) Authorizes an aggregate of \$5 million from the Infrastructure Account for the deployment of line extensions to individual houses or properties where an owner cannot otherwise afford a line extension. Any infrastructure built to make a line extension to a facilities-based broadband provider's network shall become the property of the provider to which it is connected. (PUC Section 281(f)(6))
- 9) Specifies that local governments are eligible for CASF grants if the agency's project is for an unserved household or business, and the CPUC has conducted an open application process, and no other eligible entity applied for the project. (PUC Section 281(f)(9))
- 10) Specifies that the following are eligible uses of CASF infrastructure grant funds:
 - a) Costs directly related to deploying infrastructure;

- b) Costs to lease access to property or for internet backhaul services for a maximum of five years; and,
- c) Costs incurred by an existing facilities-based broadband provider to upgrade its existing facilities to provide broadband interconnection. (PUC Section 281(f)(11))

FISCAL EFFECT: Unknown. This bill has been keyed fiscal by the Legislative Counsel.

COMMENTS:

- 1) **Authors Statement:** According to the author, “SB 1130 is a critical and timely measure to address the digital divide. Access to the internet is about access to opportunity, and this has never been clearer than it is now, as so much of work, healthcare, and education have moved online in response to COVID-19. We need to smartly invest in long-term, 21st century ready broadband technologies, rather than continue to spend state dollars on outdated internet infrastructure. SB 1130 will require that new broadband projects built with existing CASF funds are future-proof, will make those funds more accessible to local governments and small [internet service providers] to work in their communities, and will encourage open-access projects that will break monopolies and drive down costs to consumers. Our communities deserve legislation that will begin to provide the investment needed to build fiber connectivity to every home, school, and business in California.”
- 1) **Background:** The CPUC implements a number of public programs to promote universal service, including the California High Cost Fund-A, the California High Cost Fund-B, the California Lifeline Program, the California Teleconnect Fund, the Deaf and Disabled Telecommunications Program, and CASF. Such universal service programs are generally developed to provide support either for providers in areas of the state where it might not make economic sense to provide telecommunications services, such as rural, remote, and sparsely populated areas; or support for individuals who otherwise might struggle to access affordable telecommunications services, such as low income, deaf and disabled, or individuals living in or serving disadvantage communities and institutions.

The universal service programs are funded through a surcharge on each customer’s phone bill for intrastate telecommunications services. The surcharge for each program is typically adjusted on an annual basis to ensure adequate funding to cover carrier claims and administrative costs. As of February 2019, the total surcharge for all universal service programs is 6.94 percent of each customer’s phone bill for intrastate telecommunications service.

- 2) **Digital Divide:** The ‘Digital Divide’ generally refers to the gap that exist between demographics and regions of the state that have access to affordable and reliable broadband. For many, broadband has become a necessity as many Americans go online for work, education, entertainment, healthcare, and much more. According to a PPIC report, in 2017, 90 percent of California households used the internet and 74 percent had broadband subscriptions at home – up from 82 percent and 70 percent in 2013. Though internet usage and broadband access are at an all-time high, the digital divide still persist across major demographic groups and regions throughout the state, especially among low-income, less educated, and rural households. It is estimated that California’s broadband infrastructure

needs on the scale of \$2.5 to 4.6 billion in capital from all sources to fully close the digital divide.

- 3) **CASF:** CASF is a universal service program created by the CPUC and statutorily established by the Legislature through SB 1193 (Padilla) Chapter 393, Statutes of 2008, to encourage the deployment of broadband services in unserved areas of the state. The program has seen several major revisions and have received additional funding since its inception, including in SB 1040 (Padilla) Chapter 317, Statutes of 2010; AB 1299 (Bradford) Chapter 507, Statutes of 2013; SB 740 (Padilla) Chapter 522, Statutes of 2013; and most recently in AB 1665 (E. Garcia) Chapter 851, Statutes of 2017. Since its inception \$645 million has been authorized for CASF.

The CASF is funded through a surcharge collected on all telecommunication end-users. As of February 2019, the CASF surcharge rate is set at 0.56 percent. CASF funding is allocated into four accounts, the Infrastructure Account, the Rural and Urban Regional Broadband Consortia Account (Consortia Account), the Broadband Public Housing Account (Public Housing Account), and the Broadband Adoption Account (Adoption Account). The status of each CASF account is as follows:

Infrastructure Account: Authorized to collect \$565 million to fund capital costs of broadband infrastructure projects in unserved areas since its inception. Approximately \$282 million has been awarded for 77 total grants. As of June 2020, there is approximately \$277 million remaining in the account.

Consortia Account: Authorized to collect \$25 million to fund the cost of broadband deployment activities other than the capital cost of facilities since its inception. Approximately \$14 million has been awarded for 35 total grants. As of June 2020, there is approximately \$10 million remaining in the account.

Public Housing Account: Authorized to collect \$25 million to provide grants and loans dedicated to broadband access in publicly supported housing communities since its inception. Approximately \$15 million has been awarded for 486 total grants. As of June 2020, there is approximately \$10 million remaining in the account. Remaining funds are transferred back to the Infrastructure Account by December 31, 2020.

Adoption Account: Authorized to collect \$20 million to provide funding to increase publicly available or after-school broadband access and digital inclusion since its inception. Approximately \$15 million have been awarded for 205 total grants. As of June 2020, there is approximately \$4 million remaining in the account.

- 4) **CASF Goal:** Arguably since the creation of CASF, most areas served by CASF funds are projects in which applicants felt that their cost, combined with CASF funds, warrant an investment in deploying broadband in an area. However, this left most of the remaining unserved areas of state, mostly in rural and small communities, still without broadband connectivity due to the lack of investment by providers who feel that the difficulties associated with deploying and maintaining such a network in an area for a limited amount of potential customers, even combined with CASF funds, would not result in a positive return on investment.

In light of the difficulties in serving the remaining unserved areas, AB 1665 (E. Garcia) of 2017 revised the goal of CASF to approve funding for infrastructure projects that will provide broadband access to no less than 98 percent of households in each consortia region by December 31, 2022. The intent was to ensure that the most difficult to reach areas of our state would be prioritized and served even as the overall statewide percentage of served household increased. As of December 2018, three consortia regions have met the 98 percent goal; the Bay Area, the East Bay Broadband Consortium; and the Los Angeles County Regional Broadband Consortium. Many of the rural consortiums still remain behind with the Upstate California Connect Consortium at 78.7 percent; the Inyo/Mono Broadband Consortium at 82.1 percent, and the Northeast California Connect Consortium at 89 percent, among the lowest.

- 5) **Pending CASF Applications:** In 2019, the CPUC approved 12 infrastructure grants worth \$25.5 million, and nine consortia grants worth \$3.7 million. In May 2020, the CPUC received the most CASF infrastructure grant applications for the highest dollar amount since its inception. Ten service providers proposed 54 project applications requesting over \$533 million in CASF funds to serve over 22 thousand households. Most of the project proposals are for fiber to the premise, but a number of projects also propose using fixed wireless and cable technologies. If approved, the total funding requested would exceed the remaining amount in the fund.
- 6) **Rural and Urban Divide:** Despite the improving averages of statewide broadband availability, the digital divide continues to persist between rural and urban areas. In rural areas, 78.5 percent of households have access to broadband at 6/1 mbps speeds, compared to 98.1 percent of households in urban areas. The divide between rural and urban areas widens as the speed increase. Only 67 percent of rural areas have broadband access at 25/3 mbps speeds, compared to 97.9 percent in urban areas. At 100 mbps downstream and any upstream speed, 97.5 percent of urban areas are served compared to 46.5 percent in rural areas.

When CASF was first created, the intent of the program was to ensure that funds were available to served households where internet connectivity was available only through dial-up service or for households with no internet connectivity at all. The purpose was to provide basic connectivity to promote economic growth, such as reading articles and sending out emails. To be eligible for CASF funds, AB 1665 revised the definition of “unserved households” as those without broadband access at speeds of at least 6/1 mbps or below. The intent was to ensure that CASF funds would continue to be provided to the neediest unserved areas of our state.

However, as technology evolved, so too did the demand for greater speeds in order to access the many tools necessary to promote economic growth in today’s society. Today the basic functions of the internet in which CASF was created to provide may no longer be adequate for our state. Yet the rural and urban divide continues to persist and the Legislature must consider if the priorities of the program should continue to be to serve the remaining unserved population that still do not have access to even the most basic internet connectivity that we all expect, or to upgrade existing broadband infrastructure to a level more reflective of what is expected of today’s economy.

This bill revises the goal of CASF to approve funding for infrastructure projects that will provide high-capacity, future-proof infrastructure, to no less than 98 percent of each

consortia region. This bill expands eligibility to CASF by revising the criteria's in which an applicant may apply for funds to unserved areas where no providers speeds of at least 25/25mbps and a latency that is sufficiently low to allow real-time interactive application. The bill requires the CPUC to prioritize projects in areas where no provider offers speeds of 6/1mbps or have no internet connectivity at all.

Proponents of the bill argue that the current CASF program requirements prevent the state from systemically addressing the challenges residents face today. Instead the program should be converted into a fiber infrastructure fund used to build faster infrastructure that is capable of adapting to future technology. The bill defines future proof infrastructure to mean data networks that, once built, do not require new construction that involve significant public works and is capable of delivering 100/100mbps speeds and a latency averaging at less or less than 20 milliseconds to allow real-time interactive applications.

It is possible to have internet speeds of 25/25 mbps but with high latency, e.g., if satellite internet was capable of 25/25 mbps, latency would be over 500 ms and therefore too high. Broadband services provided by fiber-to-the-home, cable, Very high-speed Digital Subscriber Lines, and fixed-wireless technologies will most likely provide latency thresholds that will meet the standard for video conferencing and Voice over Internet Protocol applications; however, some of the technological terminology in the bill may be too restrictive and specific for statute.

- 7) **Participation:** This bill expands the ability for local agencies to apply for CASF by removing the limitation on local agencies from applying for CASF only after the CPUC has conducted an open application process, and no other eligible entity has applied. In cases where the economic model often cannot justify build-out by a private provider, municipal networks can serve as a critical tool for increasing access, encouraging competition, fostering consumer choice and driving local and regional economic development. As of January 2020, more than 900 communities across the country have developed their own community based broadband networks.

In addition, the bill imposes number of additional project criteria's including prohibiting an existing facility based broadband provider from applying unless it can demonstrate that they are financially incapable of self-financing the necessary upgrades; requiring middle mile projects to be open access; requiring wholesale access; eliminating the line extension program, and requiring the CPUC to oversee rates charged by the approved open access projects. Arguably such provisions would stunt the number of existing providers willing to participate in the program and reduce the number of potential applications. This may have an adverse effect on the program especially for areas that currently already find it difficult to attract investments from providers even with CASF funds. While some means testing may be a good way to ensure appropriate use of public funds, arguably the program would benefit from more provider participation, not less; while the CPUC would still have the ability to ensure public funds are used to its maximum benefit.

- 8) **Funding:** As previously mentioned, California needs an estimated \$2.5 to 4.6 billion in funding to close the digital divide. There is currently approximately \$277 million remaining in the Infrastructure Account with 54 applications pending that, if approved, would exhaust all remaining funds. This bill however does not provide additional funding for the program. Without an increase in funding or authorization to extend or increase the current surcharge,

the new program rules proposed by this bill could have limited impact because there may be reduced funding for future infrastructure grant application cycles. Furthermore, it is unclear, absent additional funding, what impact these new rules would have on the current pending applications. Instead of providing additional funding, the author seeks to repurpose existing funds from fully funding projects to providing seed money to incentivize municipalities to contribute alternative funds to invest in municipal broadband projects.

In addition, currently the CPUC is authorized to collect no more than \$66 million per year unless it determines that doing so would not increase the total surcharge on customers' phone bills. However, amendments adopted in the Senate removed this CPUC authority. This may have an adverse effect on the CPUC's ability to fully collect the remaining funds authorized under AB 1665. The actual amount collected by the CPUC through the surcharge is not a flat fee, but a percentage of a user's overall intrastate bill amount (e.g. voice plan). In 2018 the CPUC only collected \$39 million of its authorized \$66 million, while in 2019, it collected \$41 million. This revenue shortfall is attributed to the continuing downward trend in intrastate telecommunications services that are subject to CPUC surcharges. The existing authority gives the CPUC the ability to recoup funds to reach the full \$330 million by 2022, as authorized under AB 1665, in years where customers voice plan usage are higher, while keeping the overall surcharge on customers phone bills leveled.

- 9) **Arguments in Support:** According to the Electronic Frontier Foundation and Common Sense, the co-sponsors of the bill, "CASF must be converted into a fiber infrastructure fund, focused on unserved low income and rural communities, in order to permanently end the digital divide. Inaction by the state has forced more and more Californians to fall further behind as those without access are joined by those with deteriorating outdated networks that do not qualify as broadband service under federal law. The state law currently prevents the [CPUC] from funding modern high-speed broadband infrastructure if a community has a broadband provider offering a long-outdated DSL connection at 6 mbps download by 1 mbps upload. This standard—which even a decades-old copper network from the era of the AT&T monopoly can meet—prevents the state from systemically addressing the challenges residents have faced under COVID-19."
- 10) **Arguments in Opposition:** According to the California Cable & Telecommunications Association, "SB 1130 would completely upend the Legislature's direction that the CASF program fund infrastructure in areas that still lack any internet connectivity, which is almost entirely in remote rural California. It would change the definition of "unserved" to allow CASF grants for upgrading networks that already provide service at speeds up to 25/25 mbps, even though parts of rural California still have no service. Oddly, it would allow CASF grants to fund networks that do not serve *any* households and would even *prohibit* a grant recipient from providing service to households. It also would modify a long-standing limitation on when a local government agency is eligible for a CASF grant, overturning the Legislature's recognition that government-owned networks always require more ongoing tax or bond funding, which is nearly always unsustainable."
- 11) **Related Legislation:** AB 570 (Aguiar-Curry) of 2020 provides additional funding and makes numerous program changes to CASF. *Status: Pending in the Senate Energy, Utilities and Communications Committee.*

12) **Prior Legislation:** AB 1665 (E. Garcia) of 2017 provided an additional \$330 million into CASF and made various program changes including revising the program goal, revised eligibility requirements, and creating the Broadband Adoption Account. *Status: Chaptered by the Secretary of State – Chapter 851, Statutes of 2017.*

SB 745 (Hueso) of 2016 extended the date remaining funds from the CASF Public Housing Account are transferred back to other accounts and limited eligibility to unserved public housing developments. *Status: Chaptered by the Secretary of State – Chapter 710, Statutes of 2016.*

SB 740 (Padilla) of 2013 increased funding into CASF not to exceed \$215 million, established a program goal, and expanded eligibility into CASF. *Status: Chaptered by the Secretary of State – Chapter 522, Statutes of 2013.*

AB 1299 (Bradford) of 2013 established the CASF Public Housing Account to fund grants for the deployment and adoption of broadband service in publicly supported housing communities. *Status: Chaptered by the Secretary of State – Chapter 507, Statutes of 2013.*

SB 1040 (Padilla) of 2010 provided an additional \$125 million for CASF to encourage deployment of advanced communications services. *Status: Chaptered by the Secretary of State – Chapter 317, Statutes of 2010.*

SB 1193 (Padilla) of 2008 created CASF to fund the cost of deploying broadband internet facilities to unserved and underserved areas of the state. *Status: Chaptered by the Secretary of State – Chapter 393, Statutes of 2008.*

REGISTERED SUPPORT / OPPOSITION:

Support

Electronic Frontier Foundation (co-sponsor)
 Common Sense (co-sponsor)
 AARP California
 Access Humboldt
 Access Now
 ADT Security Services
 Aspiration Tech
 California County Superintendents Educational Services Association
 California Educational Technology Professionals Association
 California's Rural Counties and California Center for Rural Policy
 California School Boards Association
 Central Coast Broadband Consortium
 City of Riverbank
 City of Thousand Oaks
 Common Networks
 Communications Workers of America, District 9
 Consumer Reports
 Contextly
 County of Marin

CreaTV
DragonFly Group
Engine Advocacy
HiGeorge
Indivisible Sacramento
Initialized
Institute for Local Self Reliance
Kern Community College District
Kubera Venture Capital
Laytonville Area Municipal Advisory Council
League of California Cities
Long Beach Unified School District
Los Angeles County Office of Education
Los Angeles Unified School District
Manchester Community Technologies
Media Justice
Michelson 20MM Foundation
MinOps
Monkeybrains
National Association of Social Workers, California Chapter
Ochin, Inc.
Onfleet
Paramount Unified School District
Pitch Deck
PressFriendly
Protocol Labs
Public Knowledge
Reddit
SiFi Networks
Small School Districts Association
South Bay Cities Council of Governments
The Children's Partnership
The Education Trust – West
The Greenlining Institute
Tom Wheeler, Former FCC Chair
Tostie Productions, LLC
Tucows
Ubuntu Ventures
Unwired
Writers Guild of America West
Yuba Community College District

Opposition

California Cable & Telecommunications Association
California Communications Association
Charter Communications (unless amended)
CompTIA
Frontier Communications

Los Angeles County Business Federation (unless amended)

Analysis Prepared by: Edmond Cheung / C. & C. / (916) 319-2637