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WIRELINE COMPETITION BUREAU RELEASES ALTERNATIVE CONNECT AMERICA COST MODEL VERSION 2.1 AND ILLUSTRATIVE RESULTS FOR POTENTIAL USE IN RATE-OF-RETURN AREAS

WC Docket No. 10-90

The Wireline Competition Bureau (Bureau) announces the release of the Alternative Connect America Cost Model (A-CAM) v2.1, which incorporates study area-specific plant mix values submitted by rate-of-return carriers,¹ updates broadband coverage data to address issues raised by rate-of-return commenters regarding reported competitive coverage,² and provides an alternative coverage option that excludes from support calculations census blocks served with either fiber to the premises (FTTP) or cable, as requested by one commenter.³ In addition, we further update the model in several minor respects, as described below. The Bureau also is releasing results that illustrate how the two different coverage assumptions used in calculating support impact the potential support calculated for a particular study area; both sets of results are calculated using a \$200 per-location funding cap.⁴

Plant Mix. On July 29, 2015, the Bureau invited commenters to submit proposed corrections to the plant mix values for individual study areas.⁵ The Bureau received plant mix filings for over 500 study areas, and the vast majority of these were incorporated without modification into A-CAM v2.1.⁶ To evaluate the submitted plant mix inputs, the Bureau made a test run using A-CAM v2.0 with the submitted plant mix input values and compared A-CAM test-run calculated loop cost for each study area

¹ The previous version of A-CAM, v2.0, was modified to incorporate study area-specific plant mix input values, but because the Bureau was still reviewing carrier submissions at that time, they were not reflected in that version of the model. *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 2.0 and Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, DA 15-1154 (Wireline Comp. Bur. Oct. 8, 2015) (*A-CAM v2.0 Public Notice*).

² See, e.g., Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 29, 2015) (NTCA Oct. 29, 2015 *Ex Parte Letter*); Letter from Anthony K. Veach, Counsel for Panhandle Telephone Cooperative, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed June 17, 2015).

³ Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 19, 2015) (ITTA Nov. 19, 2015 *Ex Parte Letter*).

⁴ These illustrative results are produced using solution sets SSACAM20151214v21 and SSACAM20151214v21FTTPCa and are available at https://transition.fcc.gov/wcb/ACAM_21_ILL_Rpt_Version4_0_FINAL_121515.xlsx.

⁵ *Wireline Competition Bureau Announces Upcoming Modifications to the Alternative Connect America Cost Model*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 8191 (Wireline Comp. Bur. 2015).

⁶ The Bureau received a total of 528 plant mix filings for 508 study areas (20 submissions were superseded by an updated filing). The plant mix values (aerial, buried, and conduit) are broken out separately for urban, suburban, and rural areas, for feeder, distribution, and interoffice facilities.

to A-CAM v2.0 loop costs. Then the Bureau compared A-CAM test-run calculated loop cost for each study area to embedded loop cost as filed by the carrier with the National Exchange Carrier Association (NECA) over the last 15 years.⁷ The Bureau incorporated into A-CAM v2.1 any plant mix submission that either: (1) resulted in a decrease in A-CAM loop cost compared to the original A-CAM 2.0 results; or (2) resulted in an increase in A-CAM loop cost compared to the original A-CAM 2.0 results, but the ratio of A-CAM loop cost to embedded loop cost was less than a factor of two. This approach uses a ratio that is considerably higher than the average ratio of A-CAM loop cost to embedded loop cost for study areas submitting plant mix values.⁸ The submitted plant mix values for 455 study areas met either of these conditions and were incorporated without modification.

The submitted plant mix values for 53 study areas resulted in a loop cost that was two times or greater than the highest embedded loop cost for the study area reported to NECA in the last 15 years. The Bureau further evaluated these submissions focusing on the percentage of underground plant. Typically, underground plant, which includes both conduit and access systems like manholes with underground vaults or hand-holes, is deployed in urban areas where the higher costs can be amortized over more customers.⁹ If the submitted percentage of underground plant was less than the percentage of underground plant in A-CAM v2.0, the Bureau used the submitted plant mix values in A-CAM v2.1. This was the case for an additional 45 study areas, for which submitted values also were incorporated without modification. For the remaining eight study areas, for which the submitted percentage of underground plant was greater than the percentage of underground plant in A-CAM v2.0, the Bureau used a hybrid approach.¹⁰ Specifically, the Bureau used the submitted input value for the percentage of aerial plant and the A-CAM v2.0 input value for underground plant, and modified the input value for the percentage of buried plant to be the remainder.¹¹ Thus, A-CAM v2.1 incorporates submitted plant mix values for 500 study areas without modification, and uses a hybrid approach for eight study areas.¹²

Broadband Coverage. A-CAM contains two modules: a cost module that calculates costs for all areas of the country,¹³ and a support module, which calculates the support for each area based on those costs. The A-CAM support module allows users to “filter” the cost data to focus on specific geographic areas, such as those census blocks that are not served by an unsubsidized competitor.

A-CAM v1.1 incorporated updated broadband coverage to reflect the most recent submission of FCC Form 477 data from unsubsidized voice and fixed broadband providers available at that time,

⁷ A-CAM loop costs were adjusted by excluding middle-mile, undersea, and submarine costs, as well as the cost for land and building, because these costs are not included in the loop costs reported to NECA.

⁸ Specifically, the mean was 1.63, the median was 1.42, and the weighted (by locations) average was 1.38.

⁹ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 3964, 4020, para. 128 (Wireline Comp. Bur. 2014) (*CAM Inputs Order*) (noting that underground plant with underground vaults and man-hole or hand-hole access has costs that are typically three to five times more costly than buried plant).

¹⁰ This is similar to the approach the Bureau used in determining plant mix for price cap carriers serving the non-contiguous areas of the United States. *See id.* 4019-20, paras.127-28.

¹¹ That is, 1 - (aerial submitted input value + underground A-CAM v2.0 input value) = hybrid buried input value. Plant mix values for aerial, buried, and underground must equal 1 or 100 percent.

¹² A table showing plant mix submissions by study area code and the criteria the Bureau used to either accept or adjust the submission is available at https://transition.fcc.gov/wcb/ACAM_2_1_Adjusted_PlantMix_Action_Summary%20Final%20120715.pdf.

¹³ The cost module itself has two parts – one part that figures out an efficient routing to ensure each location is “passed” by a network, namely a network topology, and a second part that calculates the costs associated with that network topology.

preliminary broadband deployment data as of December 31, 2014.¹⁴ A-CAM v2.1 incorporates the publicly available December 2014 FCC Form 477 data released on November 10, 2015.¹⁵

The Bureau modified the methodology it previously had utilized to identify unsubsidized competitors meeting the Commission's minimum performance standards for the high-cost program to address concerns raised by rate-of-return carriers that A-CAM treated fixed wireless and cable networks deployed by incumbents or their affiliates as unsubsidized competitors, even though carriers argued that those facilities were used to deliver voice and broadband service in furtherance of their ETC obligations throughout parts of their service territories.¹⁶ In previous versions of A-CAM, broadband technology codes and speed were used to determine whether a census block was served by an unsubsidized competitor. In A-CAM v2.1, any broadband deployment with speeds of at least 10 Mbps downstream/1 Mbps upstream that was reported in FCC Form 477 by a rate-of-return carrier or its affiliates (based on the published "holding company number") within the study area is treated as telco-served, regardless of technology. The FCC Form 477 data do not indicate whether these broadband technologies are being used in furtherance of ETC obligations, so this approach may be over-inclusive in treating all such rate-of-return areas as telco-served. On the other hand, the previous methodology treated some areas served by out-of-region local exchange carriers (LECs) as telco-served, when they should have been treated the same as unsubsidized competitors. Areas with digital subscriber line (DSL) and FTTP by providers other than the in-region rate-of-return incumbent LEC or its affiliates are now classified as "wired served" and excluded from support calculations.¹⁷

Some parties to the proceeding have made several proposals regarding the build-out obligations of companies participating in the voluntary path to the model and have discussed whether and how the current broadband build-out of a participating company should be taken into account.¹⁸ This version of A-CAM also provides an alternative coverage option that excludes from support calculations census blocks served with either FTTP or cable, as requested by ITTA.¹⁹ In this coverage option, all census blocks with reported FTTP or cable broadband of at least 10/1 Mbps are classified as "wired broadband," and excluded from support calculations.²⁰ Solution sets using both coverage options are available on the

¹⁴ *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 1.1 and Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 9777 (Wireline Comp. Bur. 2015) (*A-CAM v1.1 Public Notice*).

¹⁵ The December 2014 data are available at <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477> and are incorporated by reference into this docket.

¹⁶ See, e.g., NTCA Oct. 29, 2015 *Ex Parte Letter*; Letter from Dustin Johnson, Vice President of Consulting, Vantage Point, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 4, 2015); Letter from Doug Eidahl, Vice President of Regulatory and Legal, Vantage Point, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 11, 2015).

¹⁷ Providers reporting broadband other than the in-region rate-of-return incumbent LEC using digital subscriber line (DSL) and FTTP that previously were classified as telco-served, are now classified as "wired served."

¹⁸ See ITTA Nov. 19, 2015 *Ex Parte Letter*.

¹⁹ *Id.* at 3 (suggesting "it would be helpful if the Commission were to make available an illustrative run showing the impacts on model support where support is not provided in census blocks currently served by FTTP or cable modem technology").

²⁰ According to the reported FCC Form 477 data for the period ending December 31, 2014, 7 percent of locations served with at least 10/1 Mbps by incumbent rate-of-return carriers are located in census blocks where that incumbent LEC is reporting the use of cable broadband technology, while 31 percent of locations served with at least 10/1 Mbps by rate-of-return carriers are located in census blocks where that incumbent LEC is reporting FTTP technology. A chart based on the FCC Form 477 data showing rate-of-return carrier deployment percentages by technology will be available at <https://www.fcc.gov/general/rate-return-resources#model>.

A-CAM web site, and a user can select the alternative coverage file when creating a new solution set.²¹ We note that this alternative coverage option lowers the number of study areas for which A-CAM support is greater than 2014 support under the legacy mechanisms: report 4.1 shows that 600 study areas would receive more support from A-CAM than they received in 2014, while report 4.2 – which does not calculate support for blocks that already are served by cable or FTTP – shows that 490 study areas would receive more support from A-CAM than they received in 2014 from the legacy mechanisms.

Support Module Reports. In A-CAM v2.0 support could be calculated and reported using either an extremely high-cost threshold or a funding cap.²² In A-CAM v2.1 only a funding cap per location is used to calculate and report support. A-CAM reports also were modified to correspond to the categories used to describe broadband coverage.

Other Updates. A-CAM v2.1 also updates the TelcoMaster table and the short names based on updates to the FCC's holding company information and corrections received from commenters.²³

For additional information on this proceeding, contact Katie King (Katie.King@fcc.gov) of the Wireline Competition Bureau, Telecommunications Access Policy Division, (202) 418-7400.

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²¹ The default coverage file used in A-CAM v2.1 is labeled as v2.1. When creating a new solution set, a user can also select the alternative coverage file, v2.1_Fttp_Ca, by modifying the base coverage toggle.

²² Illustrative results for previous versions of A-CAM showed support using a per-location funding cap, but A-CAM users could only approximate the Bureau's estimates. See *Wireline Competition Bureau Releases Alternative Cost Connect America Cost Model Version 1.0.1 and Illustrative Results for Potential Use in Rate-of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 2067 (Wireline Comp. Bur. 2015); *A-CAM v1.1 Public Notice*.

²³ A-CAM is available at <http://www.fcc.gov/encyclopedia/caf-phase-ii-models> or <https://cacm.usac.org/>. In order to access the model, parties must execute the relevant acknowledgement of confidentiality, licensing, and nondisclosure documents released as attachments to a *Third Supplemental Protective Order*. See *Connect America Fund*, WC Docket No. 10-90, Third Supplemental Protective Order, 27 FCC Rcd 15277 (Wireline Comp. Bur. 2012). The model methodology for A-CAM v2.1 will be made available at <https://www.fcc.gov/encyclopedia/rate-return-resources> shortly after A-CAM v2.1 is publicly released.