

February 24, 2014

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VIA HAND DELIVERY & ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Connect America Fund*, WC Docket No. 10-90;
High-Cost Universal Service Support, WC Docket No. 05-337

Dear Ms. Dortch:

Alaska Communications Systems (“ACS”) respectively asks that the Commission include in the record in the above-captioned proceedings these comments concerning Phase II of the Connect America Fund (“CAF II”) and the forward-looking cost-based model under development by the Wireline Competition Bureau (the “CAM”).¹

The Modeling Process & the Use of Embedded Costs

The Commission delegated authority to the Bureau to adopt an engineering-driven, forward-looking cost-based model and cost inputs for the purpose of estimating the cost to deploy modern networks capable of supporting an evolving level of broadband-based services in high-cost areas, and allocate the budgeted CAF II support on a location-specific basis.²

¹ See *Wireline Competition Bureau Announces Availability of Version 4.0 of the Connect America Fund Phase II Cost Model and Seeks Comment on Adopting Current Default Inputs In Final Version of Model*, WC Docket No. 10-90, Public Notice, DA 13-2304 (Wireline Competition Bur. rel. Dec. 2, 2013) (“December 2 Notice”).

² *Connect America Fund et al.*, Report & Order and Further Notice of Proposed Rulemaking, WC Docket Nos. 10-90 *et al.*, 26 FCC Rcd 17663, ¶184 (2011) (“*USF/ICC Transformation Order*”).

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The current version of the CAM (“CAM v4.0”) incorporates some Alaska-specific data related to undersea cable deployment and operating expense; but for investment for local loop and intrastate middle mile, CAM v4.0 uses cost inputs based on proprietary data provided by the largest price cap carriers serving the Lower 48 states, derived from undisclosed source material. ACS has asked the Bureau to use Alaska-specific outside plant capital expense (“CapEx”) inputs in the CAM, a more representative allocation of undersea cable costs, and a more realistic “take rate” for broadband in supported areas in Alaska. These changes are necessary to ensure that CAF II support is sufficient to bring the benefits of broadband to the state. ACS has supported its proposals with Alaska-specific, forward-looking cost data and economic analysis based on Commission precedent.

Thus far, the Bureau has declined to incorporate these proposed changes into the CAM, but has not explained why – for example, whether it rejects ACS’s cost data (which has not been challenged by any party) or disagrees with ACS’s analysis. Recent statements by the Bureau suggest that it may be relying on some measure of embedded or historic operating expense (“OpEx”) to assess whether changes proposed by ACS are justified and lead to a reasonable allocation of support to any particular location. The Bureau stated specifically that it is comparing embedded loop operating costs to the costs predicted by the CAM,³ but ACS has heard in informal discussions with Commission staff that the Bureau’s reference to embedded costs goes beyond operating costs associated with copper loops. Little formal explanation has been provided. Moreover, comparing forward-looking costs in Alaska to embedded loop costs fails to explain why the Bureau has not implemented the major proposals recommended by ACS related to undersea cable cost allocation and the “take rate” for Alaska, both of which are unrelated to local loop costs. If the Bureau is relying on a limited set of historic data to constrain outcomes under the CAM, it is deviating from Commission precedent, exceeding its authority, and in doing so it risks impairing the ability of Alaska carriers to deploy of modern broadband-capable networks.

Embedded Costs Are Relevant Only When Used Appropriately

In the past, the Bureau found an embedded cost ratio useful as a test of its forward-looking proxy model for non-rural high-cost support (“HCPM”) intended to calculate support for areas already served by voice-capable networks. Significantly, the Bureau did not rely on the embedded cost amounts themselves to predict forward-looking costs or limit support in any way. Rather, the Bureau found that the *ratio* of embedded operating costs to embedded investment

³ December 2 Notice at 5-6 (“CAM v4.0 does not include all the changes submitted into the record by carriers serving the non-continuous United States. In analyzing the impact of the requested changes and assessing the reasonableness of the modeled costs, we compared the costs calculated in the CAM v4.0 with the embedded costs reported by the carriers.”).

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(including a booked-to-current investment value adjustment) could be a useful guide to the appropriate ratio between forward-looking operating costs and forward-looking investment.⁴ The Bureau had studied the historic operating costs and investment of the incumbent local exchange carriers (“ILECs”) in deploying universal voice-capable networks, and therefore had a basis for its OpEx-to-Investment ratio.⁵ Applying this ratio to estimated forward-looking investment, the HCPM estimated forward-looking OpEx in order to determine appropriate support levels for high-cost areas. Putting aside whether this method was reasonable for the HCPM, it is the only FCC precedent with which ACS is familiar in which historic costs have been considered relevant to a forward-looking model used to calculate federal universal service disbursements.

The Bureau stated only that it has compared estimated forward-looking operating costs to embedded operating costs – a comparison that has no inherent validity, as discussed below. The Bureau does *not* appear to have developed a *ratio* of broadband OpEx-to-Investment for the purpose of evaluating the CAM. If they have done so, they have not made it publicly available. Instead, the Bureau appears to be constraining forward-looking operating costs under the CAM to be no higher than embedded costs, regardless of the result that would be achieved by applying the OpEx-to-Investment ratio to forward-looking investment. This violates Commission precedent.

The Commission has rejected the use of the absolute level of embedded operating costs to determine appropriate forward-looking values.⁶ The Commission stated that, while the estimation of forward-looking expenses may *start* with embedded costs, limiting forward-looking costs based on embedded costs would violate Commission policy that federal support should be determined based on forward-looking costs.⁷ In the present proceeding, the Commission again weighed the relative utility of historic network costs and forward-looking costs, and instructed the Bureau to develop a brand new forward-looking cost model to estimate the cost of deploying the modern technology that universal service should support going forward.⁸ In doing so, the Commission expressly rejected reliance on the HCPM because it

⁴ *Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, Tenth Report & Order in CC Docket No. 96-45, 14 FCC Rcd 20156, ¶346 (1999) (“*Tenth Report & Order*”). For example, if embedded operating costs were roughly 30 percent of embedded investment, measured over a number of years, it might be reasonable to project that forward-looking operating and investment costs should fall into roughly the same ratio.

⁵ *Tenth Report & Order* ¶¶341-376.

⁶ *Tenth Report & Order* ¶346.

⁷ *Tenth Report & Order* ¶351 (“the model's forward-looking expense estimates should not reflect the cost of maintaining the incumbent LEC's embedded plant”).

⁸ *USF/ICC Transformation Order* ¶184.

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calculated costs based on engineering assumptions and equipment costs drawn from a former network technology.⁹ Relying on embedded costs serves no purpose in this modeling exercise.

Not only does the reliance on the absolute level of embedded cost to determine forward-looking expenses violate Commission precedent, but the Bureau also has failed to provide any detailed explanation of its proposed methodology or the analysis it used to test ACS's proposals. Any Bureau methodology should be made available for testing by outside parties, as the Commission promised would occur.¹⁰ Failure to reveal the Bureau's methodology and permit public examination of the data that is driving Bureau decisions about the CAM violates the *USF/ICC Transformation Order* as well as the requirements of the Administrative Procedures Act.¹¹

Embedded Costs Should Be Employed Only To the Extent Relevant Data Are Available

While the ratio of embedded operating costs to investment may be relevant, the absolute cost figures for the embedded network have no relevance to the present exercise. The Bureau is not modeling the forward-looking costs of continuing operation of the existing circuit-switched, narrowband network. The CAM is intended to model the cost of deploying new technology capable of supporting an evolving level of advanced services in locations where (for the large part, especially in Alaska) such technology has not yet been deployed.¹² However, the Bureau does not appear to have studied any embedded cost figures that would be relevant to the modeling of the broadband-capable networks that CAF II is designed to support. Again, if they have done so, they have not made their analysis available to the public.

⁹ *USF/ICC Transformation Order* ¶186.

¹⁰ *USF/ICC Transformation Order* ¶185 (the model “and all underlying data, formulae, computations, and software associated with the model must be available to all interested parties. All underlying data should be verifiable, engineering assumptions reasonable, and outputs plausible.”) (quoting *Universal Service First Report & Order*, 12 FCC Rcd 8776, 8913 (1997)).

¹¹ See, e.g., 5 U.S.C. §706(2)(A) (reviewing court shall hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law). See generally *Duquesne Light Co. v. Barasch*, 488 U.S. 299 (1989) (overall effect of the methodology must be deemed reasonable in order for methodology to be deemed reasonable).

¹² See, e.g., *USF/ICC Transformation Order* ¶156 (the model should provide a measure of the forward-looking costs of “constructing modern multi-purpose networks”).

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Instead, the Bureau has departed from FCC precedent by trying to compare the forward-looking costs of a new technology deployed in a green-field environment¹³ to the historic costs of a portion (that is, only the loop plant) of an outmoded technology (the circuit-switched network optimized for voice service).¹⁴ Yet the Bureau suggests that it is looking at a partial set of historic costs as somehow relevant to forward-looking costs.¹⁵ At best, historic loop costs are informative only of the largely depreciated costs of a portion of a network based on an outmoded technology. For this reason, the Commission rejected the use of historic costs for CAF II purposes. The Commission indicated that the Bureau should develop a model to estimate the cost of deploying a modern, broadband-capable, multi-purpose network rather than the voice-optimized network formerly supported.¹⁶ In particular, the Commission rejected the notion of using the HCPM because it calculated costs “based on engineering assumptions and equipment appropriate to the 1990s.”¹⁷

If the Bureau nevertheless chooses to rely on embedded costs as some sort of reference point, it should do so in a rigorous manner, developing like-kind comparisons using transparent source materials, and making necessary adjustments where the comparison of forward-looking to embedded costs breaks down. Using embedded loop OpEx data to predict total network costs, both OpEx and CapEx, does not meet these criteria. Moreover, several adjustments to the CAM that ACS has advocated, such as the undersea cable allocation and the take rate, must be analyzed separately, as loop costs have no bearing on those matters.

The Basis For the Bureau’s Assumptions Should Be Explained

¹³ *Connect America Fund; High-Cost Universal Service Support*, Report & Order, WC Docket Nos. 10-90, 05-337, DA 13-807, ¶19 (Wireline Competition Bur. rel. April 22, 2013)(deciding to model green-field fiber deployment in the areas served by the price cap ILECs).

¹⁴ Even those costs at this point reflect highly depreciated plant, as the Commission has acknowledged. See ACS CAM v4.0 Comments at 24-25 (citing *Universal Service (Input Values For High-Cost Support)*, Tenth Report & Order, 14 FCC Rcd 20156 (1999)).

¹⁵ See CAM Documentation, OpEx Overview, at 13 (“once model output was available, the scaling was revisited to ensure that forward looking opex values did not exceed NECA-based Booked Opex”), available at: <https://cacm.usac.org/resources.aspx>. See also December 2 Notice, n. 16 (“In comparing embedded cost to modeled cost, Bureau staff looked at NECA data reflecting embedded loop cost for each non-contiguous carrier over thirteen years. [...] Because NECA data includes only loop costs, we excluded middle mile and undersea cable costs from the model results, and used an assumed 11.25 percent cost of money, in order to make a like-to-like comparison.”).

¹⁶ *USF/ICC Transformation Order* ¶¶156, 184.

¹⁷ *Id.* ¶186.

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The Bureau did not explain in the December 2 Notice why it “compared the costs calculated in the CAM v4.0 with the embedded costs reported by the carriers” or how it made this comparison.¹⁸ ACS can infer from statements made by the Bureau that it is using absolute embedded loop cost levels at the individual company level as a cap on forward-looking costs, though this plainly violates Commission precedent, as explained above. Moreover, as long as the Bureau fails to explain its methods, the model is untestable, and the results lack credibility.

The OpEx overview published by the Bureau with the CAM Documentation states that the Bureau expects forward-looking OpEx as calculated by the CAM to be equal to or less than the historic OpEx due to efficiency gains that should be realized in deploying a new technology in a greenfield network topology.¹⁹ However, the Bureau has not explained how it quantified this expected efficiency gain other than providing a comparison of operating cost *estimates* for a digital subscriber line (“DSL”) network and a fiber-to-the-premises (“FTTP”) network – *both taken from CAM model runs*.²⁰ Such a comparison is meaningless given that the CAM includes the scaling adjustment, ensuring that the embedded network (DSL) cost would be no higher than the forward-looking network (FTTP) cost. Moreover, the Bureau said nothing about consideration of other Alaska-specific cost differences that will be incurred in broadband network deployment, and that are necessary for a valid comparison – such as increased reliance on electronics, higher labor costs, unique transportation costs, and increased maintenance and upgrade costs – which ACS has documented in the record.²¹ The Bureau should explain the basis for its expectation of efficiency gains, so that they can be quantified, and offset against forward-looking cost increases that ACS has documented.

ACS submitted state-specific CapEx figures on January 7, 2014, in response to the Bureau’s changes to the CAM “to provide an input source for situations in which a state-specific capex input is required.”²² To date, the only state-specific CapEx input values incorporated by the Bureau into the CAM are certain material input values for the Virgin Islands.²³ No

¹⁸ The CAM documentation implies that the comparison is made at the rolled-up level (large companies, medium companies, small companies). *See* CAM Documentation, OpEx Overview at 22.

¹⁹ CAM Documentation, OpEx Overview at 13.

²⁰ *See* CAM Documentation, OpEx Overview.

²¹ *See, e.g., Connect America Fund*, Comments of Alaska Communications Systems in WC Docket No. 10-90 (filed Jan. 7, 2014) (“January 7 CAM v4.0 Comments”), Attachments A-1 & A-2 (state-specific CapEx inputs supported ACS inventory files and installation contract documentation); Letter to Marlene H. Dortch, FCC Secretary, from Leonard A. Steinberg & Richard R. Cameron, ACS, in WC Docket Nos. 10-90 & 05-337 (material and labor cost documentation supported vendor invoices).

²² December 2 Notice at 8.

²³ December 2 Notice at 5.

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explanation has been offered as to why the Bureau concluded that “certain materials would be more expensive in the Virgin Islands” (but not labor) and not in any other territory or state.²⁴

For example, ACS has demonstrated that deploying aerial plant in a suburban area in ACS’s service territory would cost [REDACTED] based on Alaska-specific material and labor inputs, as opposed to \$4.76 per foot using CAM v4.0 default inputs.²⁵ When only Alaska-specific material inputs are considered, deploying aerial plant in a suburban area would cost [REDACTED] still a significant increase from the CAM v4.0 figure.²⁶ All told, ACS proposed to change 18 individual CapEx material inputs and 23 labor inputs in its Alaska-specific CapEx input file.²⁷ On average, the material input proposals were [REDACTED] greater than the CAM v4.0 default values. The 23 labor input values that ACS proposed to change in its Alaska-specific CapEx input values are, on average, [REDACTED] greater than the CAM v4.0 default values.²⁸ These increases represent the cumulative impact of the unique circumstances that ACS has documented throughout this proceeding, such as a greater percentage of electronics, higher labor costs, unique transportation costs, and increased maintenance and upgrade costs.²⁹ These factors result in higher costs for ACS than for price cap carriers operating in the contiguous states, regardless of any efficiency gains that may otherwise be realized using a new technology. If the Bureau is rejecting these Alaska-specific cost adjustments, it should explain why.

Moreover, nothing in the Bureau’s releases to date explain why it has not incorporated the Alaska-specific take rate or undersea cable allocation requested by ACS. The Bureau is aware that there are two subsidized competitors receiving federal high-cost support in ACS’s price cap territories, and the statewide broadband penetration rate is less than 50%, yet the model assumes that ACS will garner 80 percent market share in census blocks supported by CAF II,

²⁴ *Id.*

²⁵ See Attachment A (analysis based on the methodology used by the Commission in its *Connect America Cost Model Overview*, Sept. 12, 2013). See also *Connect America Fund*, Comments of Alaska Communications Systems in WC Docket No. 10-90 (filed Jan .7, 2014), Attachment A-1 (“ACS CAM v4.0 Comments”).

²⁶ See Attachment B.

²⁷ ACS CAM v4.0 Comments at 7-8 & Attachment A.

²⁸ See Attachment C.

²⁹ For example, ACS incurs increased transportation costs because materials and equipment must be shipped from the contiguous states to Anchorage and from Anchorage to other parts of the state, via barge or air. *Connect America Fund*, Alaska Communications Presentation to Connect America Phase II Cost Model Workshop, WC Docket Nos. 10-90 & 05-337 (Sept. 13-14, 2012).

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including locations served by a competitor receiving federal high-cost support. Without any explanation, this is an implausible assumption.

The Bureau has offered no source for its assumptions that forward-looking costs should be lower on the whole than historic costs, nor has it explained how these assumptions can be squared with the Commission express rejection of prior network costs as a basis for the CAM. In the same order in which the Commission instructed the Bureau to develop an engineering-driven, forward-looking cost model, the Commission rejected reliance on the HCPM because it calculated costs based on engineering assumptions and equipment costs drawn from a former network technology.³⁰ The Bureau should be required to justify its reliance on embedded costs and any decisions it makes to reject state-specific evidence such as that presented by ACS.

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³⁰ See *USF/ICC Transformation Order* ¶186.

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The Commission Should Intervene Before the CAM Is Finalized

Embedded costs have their place in network engineering analysis, but they should not be used to the exclusion of well-documented forward-looking costs, and their use should be explained. The Commission promised a rigorous methodology and transparent process in the development of the CAM. The Commission should ensure that the Bureau carries out this mandate. The Bureau's delegated authority permits it only to take actions that are consistent with the Commission's policy decisions. For the reasons stated above and in ACS's prior filings, the Bureau does not appear to be acting within those parameters. ACS therefore urges the Commission to exercise oversight of the Bureau and correct the course of CAF Phase II before the CAM is finalized and CAF II is implemented.

Please direct any questions concerning this filing to me.

Very truly yours,



Karen Brinkmann
Counsel for ACS

Attachments: **Redacted In Their Entirety**

cc: Daniel Alvarez
Rebekah Goodheart
Nicholas Degani
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