

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matters of

Connect America Fund

A National Broadband Plan for Our Future

High-Cost Universal Service Support

WC Docket No. 10-90

GN Docket No. 09-51

WC Docket No. 05-337

REPLY COMMENTS OF GENERAL COMMUNICATION, INC.

General Communication, Inc. (“GCI”) submits these reply comments in support of the Commission’s overall project to update and refocus universal service support for high-cost areas explicitly to assure universal broadband deployment. But, as previously stated by GCI, and as echoed by other commenters in this proceeding, the Commission must undertake any reform carefully, as it considers and accounts for the unique communications challenges posed by Alaska.

Specifically, the Commission should continue the policies adopted in the Tribal Lands exception to the Competitive Eligible Telecommunications Carrier (“CETC”) cap, and treat CETCs on Tribal Lands in the same manner as Incumbent Local Exchange Carriers (“ILECs”) during the full ILEC transition from legacy high-cost support mechanisms to the proposed new Connect America and Mobility Funds.¹ This approach will ensure that new infrastructure and services continue to be deployed in Tribal Lands while the Commission develops its reformed,

¹ See *High-Cost Universal Service Support; Federal-State Joint Board on Universal Service; Alltel Communications, Inc., et al. Petitions for Designation as Eligible Telecommunications Carriers; RCC Minnesota, Inc., and RCC Atlantic, Inc. New Hampshire ETC Designation Amendment*, Order, 23 FCC Rcd. 8834, 8848 (2008) (“CETC Exception Order”).

broadband-oriented Universal Service Fund (“USF”) framework. The Commission should not, however, adopt segregated tribal broadband and/or middle-mile funds as part of interim USF reform in advance of establishing permanent reform measures and assessing the impact of ongoing broadband funding programs.

In addition, contrary to the statements of some providers, satellite middle-mile transport will not meet the Alaska universal broadband challenge. Instead, continued high-cost support will be critical to supplementing and replacing satellite services with much more technologically and economically viable terrestrial middle-mile delivery, both within remote, off-road regions and between these regions and the Internet backbone.

Finally, GCI notes that other commenters have echoed its concern that the proposed broadband investment gap model (the “NBP Model”) is not appropriate for Alaska, as also revealed in the Commission’s recent release of its *Sixth Broadband Deployment Report* (“Section 706 Report”).² The Section 706 Report makes clear that any model the Commission adopts must reflect Alaska’s unique geography and demographics if it will be applied to Alaska.

I. Alaska Is Unique, and the FCC Should Tailor the USF Transition for Alaska and Other Tribal Lands Accordingly.

a. There Is Universal Agreement that Alaska Is Different.

As GCI stated in its initial comments in this proceeding, Alaska is geographically and demographically unique, presenting unparalleled challenges in deploying, maintaining, and operating modern telecommunications networks. Alaska has not only a small population spread

² *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for Our Future*, Sixth Broadband Deployment Report, GN Docket Nos. 09-137, 09-51, FCC 10-129 (rel. July 20, 2010).

over enormous distances, but also an extremely harsh climate and short construction season. For all of these reasons, Alaska, particularly in the rural areas, lacks the basic telecommunications and other infrastructure present in the lower 48.

Other commenters agree. For instance, the Regulatory Commission of Alaska (“RCA”) stated that Alaska’s “lack of roads, [] small population, and extreme arctic weather conditions make providing telecommunications services challenging and expensive.”³ Alaska Communications Systems (“ACS”) similarly explained that “Alaska continues to present distinctive challenges and needs relative to federal USF policies designed for nationwide application,” and that “ACS and other representatives from Alaska have consistently advised the Commission of the special characteristics of Alaska that impact the cost of providing telecommunications services.”⁴

b. Alaska Is United in Support of Continued Application of the Tribal Lands CETC Exception.

Alaska’s unique circumstances mean that the Commission should not reflexively apply lower 48 mechanisms to Alaska for USF purposes. The Commission recognized and addressed Alaska’s unique challenges when it adopted the Tribal Lands exception to the CETC high-cost support caps, acknowledging that Tribal Lands – including Alaska – have been underdeployed, and that universal service support to CETCs is critical to improving communications infrastructure in Tribal Lands.⁵ GCI and other Alaskans are united in the assessment that

³ Comments of the Regulatory Commission of Alaska at 2-3, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) (“Comments of RCA”).

⁴ Comments of Alaska Communications Systems at 1, 2, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) (“Comments of ACS”).

⁵ CETC Exception Order at ¶ 32.

Commission has appropriately and effectively focused on the acute need for USF support in continued attention to and recognition of the uniqueness of Tribal Lands.⁶

The Commission's current approach is working in Alaska. As the RCA stated in its comments, "[i]n the last few years, CETCs have developed infrastructure to provide wireless voice services to remote areas of Alaska, an expansion that would not have occurred without CETC high cost support . . . Considerable wireless facility deployment and upgrade has been completed and is planned in the next few years . . . Importantly, the USF high cost support has served to leverage private investment in Alaskan telecommunications infrastructure."⁷ ACS similarly stated, "The FCC's current 'Tribal Lands' exception to the CETC cap . . . is indicative of the FCC's recent acknowledgment of Alaska's distinguishable characteristics and needs," and "current federal high-cost mechanisms have successfully achieved the Commission's policy goals in Alaska and should not be abandoned."⁸ Finally, ATA also noted the current approach's success, stating that "mobile service in this state has blossomed due to [the CETC high-cost support] policy and due only to that policy. Even in communities with small populations, the combination of comparatively modest costs (as compared with wireline infrastructure) and the CETC high-cost support has allowed residents to gleefully adopt network wireless connectivity that is taken for granted in the contiguous states."⁹

⁶ See *e.g.*, Comments of the Alaska Telephone Association at 9, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) ("Comments of ATA") ("We appreciate that the Commission has raised concern for Tribal Lands (Alaska Native regions have been accorded status as Tribal Lands.) and insular areas and asked if circumstances might necessitate a different approach. We think they do." (citation omitted)).

⁷ Comments of RCA at 12.

⁸ Comments of ACS at 3, 1.

⁹ Comments of ATA at 9.

The proposed sunset of CETC support prior to the implementation of the Connect America Fund (“CAF”) would have a devastating impact on the emergence and deployment of not just broadband, but also basic voice services in Alaska. GCI is not alone in its concern. For instance, the RCA stated in its comments that “[p]hase out or capping of legacy high cost funding prior to adoption of an interim funding mechanism will be detrimental to Alaskan consumers. We urge the Commission to exempt Alaska from the proposals in the NOI/NPRM until a system better targeted to meet Alaska’s unique needs is developed.”¹⁰ Accordingly, CETCs on Tribal Lands should continue on the path set by the CETC Cap Order, and should transition to the new CAF – and, where appropriate, the Mobility Fund – along the same timetable and under the same rules that the Commission establishes for the ILECs.¹¹

c. Non-Alaskans Also Support the Continuation of the Tribal Lands Exception.

GCI is not aware of any commenter suggesting the elimination of the Tribal Lands exception, or that CETCs should be treated differently than ILECs during the transition to the CAF. Rather, numerous other commenters endorsed continued support under the current Tribal Lands policy.¹² In the absence of any opposition, and in the presence of such broad support, the

¹⁰ Comments of RCA at 13.

¹¹ GCI notes that until the particulars of the CAF and the Mobility Fund are specified, it will be difficult to assess whether these programs will effectively further the goals of universal broadband for Alaska.

¹² See e.g., Comments of the National Tribal Telecommunications Association at 21, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) (“Comments of NTTA”) (“Given the historic underservice in tribal areas, the Commission must accommodate the buildout costs in Tribal and Native areas by exempting Native lands from a cap on federal support.”); Comments of Native Public Media and the National Congress of American Indians at 8, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) (“Comments of NCAI”) (“Whatever route the Commission takes to reign in the costs of the USF program, it must continue to exclude providers of services to Indian Country from such as cap, consistent with prior FCC precedent.” (citation omitted)).

Commission should continue the existing Tribal Lands policy as it seeks to repurpose the universal service fund to support broadband in addition to voice service through the proposed CAF.

Legislators have likewise recognized the need to maintain the existing, successful Tribal Lands policy. The recently introduced Universal Service Reform Act of 2010 would amend Section 254(e) of the Communications Act of 1934 (47 U.S.C. 254(e)) to preserve existing Tribal Lands support:

(i) IN GENERAL--Notwithstanding any other provision of this paragraph, the Commission shall not reduce high-cost support for tribal lands under section 54.400(e) of title 47, Code of Federal Regulations, unless the Commission makes an affirmative finding that such reductions are in the public interest.

(ii) REQUIREMENTS FOR FINDING--In making a finding under clause (i), the Commission shall consider whether residents of such tribal lands have access to the services the Commission determines to be universal services in accordance with subsection (c), including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas, consistent with subsection (b)(3).¹³

The Commission has been unflagging in its commitment and attention to the special challenges of serving tribal lands. In the face of precedent, unanimous support, and legislative endorsement, the Commission must continue the path it has forged, and place CETCs serving tribal lands on the same transition path to replacement USF mechanisms as ILECs.

¹³ Universal Service Reform Act of 2010, H.R. 5828, 111th Cong. § 103 (2010).

II. The Commission Should Not Address New Funding Proposals as Part of Interim USF Reform.

Several commenters advocated for the creation of a Universal Service Enhanced Tribal Lands Broadband Program,¹⁴ Tribal Broadband Fund,¹⁵ or Tribal Lands Middle Mile USF Support mechanism,¹⁶ with at least one commenter including an outline of a Tribal Broadband Fund proposal.¹⁷ GCI does not believe that now is the appropriate time for the Commission to consider such a fund, particularly since this proceeding is intended to address the reform of legacy high-cost support mechanisms in advance of implementing USF reforms to support broadband, rather than the implementation of a final CAF or Mobility Fund support model to support broadband.¹⁸ In addition, support for middle mile is already available through existing USF,¹⁹ Telecommunications and Information Administration (“NTIA”), and Department of Agriculture Rural Utilities Service (“RUS”) funding mechanisms.²⁰ The Commission should consider Tribal Lands and/or Middle Mile proposals, if at all, only as part of broader USF reform, including the proposed CAF. In the interim, the Commission should keep the transition

¹⁴ Comments of NCAI at 5-6.

¹⁵ *See, e.g.*, Comments of NTTA at 29, Comments of Cheyenne River Sioux Tribe Telephone Authority at 10, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010).

¹⁶ Comments of ATA at 13-14.

¹⁷ Comments of Sandwich Isles Communications, Inc. and Mescalero Apache Telecom, Inc., WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010).

¹⁸ *See Connect America Fund; A National Broadband Plan for Our Future; High-Cost Universal Service Support*, Notice of Inquiry and Notice of Proposed Rulemaking, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 ¶ 2 (2010) (“NOI”) (“[T]he accompanying NPRM seeks comment on specific common-sense reforms to cap growth and cut inefficient funding in the legacy high-cost support mechanisms and to shift the savings toward broadband communications.”).

¹⁹ *See e.g.*, 47 U.S.C. § 254(e).

²⁰ Currently other sources of funding, particularly NTIA and RUS broadband grants and loans, are also independently supporting broadband, and middle-mile infrastructure in particular, further adding to the complexity of middle-mile funding.

to the CAF as simple as possible, and, as discussed *supra*, retain and extend the current – and proven – Tribal Lands policy.

III. Satellite Is an Insufficient Solution for Broadband in Alaska.

Several commenters claimed that satellite service is the ideal method of providing broadband services to the current unserved population in the United States.²¹ While such claims may be true in the lower 48, satellite is an inadequate solution for Alaska. GCI continues to believe that the Alaska universal broadband challenge is to replace satellite middle-mile transport with technologically and economically viable terrestrial middle-mile delivery throughout the state.²²

Satellite middle-mile transport – which is what exists today for rural Alaska – is very expensive, has limited throughput capacity, and simply cannot economically keep up with bandwidth demand. Moreover, even if affordable satellite middle-mile capacity emerged, many Internet applications are latency sensitive, and the only way to eliminate inherent satellite latency is to switch to terrestrial middle-mile service.²³ Satellite-based broadband service in Alaska

²¹ See e.g. Comments of ViaSat, Inc. and WildBlue Communications, Inc. at 2, 5, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) (“We note at the outset that satellite broadband can meet the 4Mbps/1Mbps standard of service set as an objective for the entire unserved population . . . The next generation of broadband satellites . . . will be able to provide this level (or better) service to all of the Commission’s estimated number of unserved households in America.” “[S]atellite broadband is the quickest and most efficient way to cover all unserved households . . .”); Comments of Hughes Network Systems, LLC at 7, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010) (“Satellite broadband is the fastest, most efficient, and most cost-effective means of increasing adoption and bringing broadband to rural, unserved areas.”).

²² Given Alaska’s challenging geography, there likely will continue to be a small percentage of users who would need to depend on broadband satellite services, but if this number is limited by the existence of new terrestrial broadband delivery, satellite providers likely would be able to meet those needs without facing significant capacity challenges.

²³ See also, Comments of ATA at 12 (“Satellite has been the method of delivery in most of the isolated communities and it has issues with speed, capacity, latency and costs of transmission.”).

faces further technological hurdles. For instance, due to Alaska's extreme latitude, satellite receivers must be aimed at a very low angle, which creates line-of-sight connection problems. Providing direct to home satellite service is even less efficient than using satellite merely for backhaul. It is thus not well-suited for widespread, intensely used broadband services for the mass market.

There is simply not enough satellite capacity to provide even adequate backhaul to support actual speeds of 4 Mbps download and 1 Mbps upload. Providing satellite backhaul for the entire satellite-served footprint of Alaska at these speeds at peak appears currently impossible to accomplish. There will therefore continue to be a dire need for expanded terrestrial capacity in Alaska.

It is not feasible to augment satellite capacity in Alaska to keep up with existing, much less forecasted, demand. GCI has previously calculated that in order to provide broadband services via satellite, it would need 10 transponders to serve just rural Alaska. GCI is not aware of any satellites that reach that far north and which have that much capacity. Furthermore, it does not improve capacity availability for satellite providers to adjust their transponders based on time zones and/or peak usage patterns to serve Alaska. In addition, existing satellites need to be replaced approximately every 15 years, at a cost of hundreds of millions of dollars per satellite.

Alaska's Cordova School District's comments in the National Broadband Plan proceeding exemplify Alaskan users' frustration at the limitations and implications of satellite-based services in the state:

Satellite connectivity gives Cordova a basic level of access, but it suffers from serious limits in regard to bandwidth and transmission lag times. Limits that are becoming increasingly apparent as content available on the Internet changes requiring real time feed back with data input and interpretation. As communications technology improves and common Internet applications

demand ever-increasing bandwidth and speed, students and teachers in Cordova are being left behind.²⁴

IV. The NBP Model Does Not Reflect Alaska's Unique Geography and Demographics.

The NBP Model made many engineering assumptions based on predictions of the types of last mile networks present, which were combined with unproven assumptions with respect to the existence of interoffice fiber networks. These flaws caused the NBP Model to wildly underestimate the broadband support that Alaska will require. The NBP Model's assumptions need substantial review and revision before being applied to Alaska if the Commission uses a modeling approach at all.

Alaskan commenters agree that the NBP Model does not reflect the realities of broadband service in Alaska. The RCA stated that “[n]o national model has ever been developed that predicts accurately the cost of service through rural Alaska,”²⁵ and that “we are concerned that any broadband model developed to address conditions in the Contiguous States will fail to consider accurately Alaskan costs and network characteristics.”²⁶ ACS similarly stated that, “Alaska [] fails to provide a reasonable environment for applying cost proxy models.”²⁷

The Commission's recently released Section 706 Report confirms GCI's and others' concerns. The 706 report verifies that all 10 of the counties/census areas that GCI identified as unserved are indeed unserved, and identifies an additional 12 unserved counties or county

²⁴ Comments of Cordova School District at 3, GN Docket Nos. 09-47, 09-51, 09-137; CC Docket No. 02-6; WC Docket No. 05-195 (filed Nov. 20, 2009).

²⁵ Comments of RCA at 3.

²⁶ *Id.* at 4-5.

²⁷ Comments of ACS at 5.

equivalent areas.²⁸ If anything, GCI was too conservative in its estimates of the unserved population in Alaska, and the NBP Model may be even more flawed with respect to Alaska than GCI and others had initially believed.

**Unserved Areas
By County or County Equivalent**

County or County Equivalent Areas ⁴	Population ⁴	Households ⁵	Average Per Capita Income (1999) ⁴	Median Household Income (1999) ⁴	Median Household Income (2008) ⁴	Percent Living in Poverty (2008) ⁵	Household Density ⁶	Population Density ⁶	Percent Rural Housing ⁷
Alaska									
Aleutians East Borough	2,810	546	\$18,421	\$47,875	\$52,786	15.3	0.40	7.81	100.00
Aleutians West Census Area	4,529	1,056	\$24,037	\$61,406	\$62,849	9	1.03	24.01	72.56
Bethel Census Area	17,236	4,546	\$12,603	\$35,701	\$41,755	21.5	0.42	11.19	68.75
Bristol Bay Borough	953	373	\$22,210	\$52,167	\$67,214	7.8	1.89	73.82	100.00
Denali Borough	1,848	769	\$26,251	\$53,654	\$70,720	5.4	0.14	6.03	100.00
Dillingham Census Area	4,933	1,514	\$16,021	\$43,079	\$50,827	19.6	0.26	8.11	100.00
Haines Borough	2,271	935	\$22,090	\$40,772	\$48,299	10.4	0.97	39.90	100.00
Kenai Peninsula Borough	53,409	19,790	\$20,949	\$46,397	\$54,206	10.3	3.34	123.58	86.34
Kodiak Island Borough	13,049	4,156	\$22,195	\$54,636	\$61,525	8	1.99	63.35	27.93
Lake and Peninsula Borough	1,488	479	\$15,361	\$36,442	\$43,687	17.2	0.06	2.01	100.00
Nome Census Area	9,261	2,705	\$15,476	\$41,250	\$46,892	20.9	0.40	11.76	69.11
North Slope Borough	6,615	1,895	\$20,540	\$63,173	\$72,499	11.4	0.07	2.13	40.50
Northwest Arctic Borough	7,502	1,851	\$15,286	\$45,976	\$57,721	16.5	0.21	5.15	60.75
Prince of Wales-Outer Ketchikan Census Area	5,533	2,044	\$18,395	\$40,636	\$44,491	15.2	0.75	27.58	100.00
Sitka City and Borough	8,889	3,301	\$23,622	\$51,901	\$61,436	7.8	3.09	114.86	20.22
Skagway-Hoonah-Angoon Census Area	3,436	1,369	\$19,974	\$40,879	NA	NA	0.44	17.34	100.00
Southeast Fairbanks Census Area	6,753	2,265	\$16,679	\$38,776	\$59,124	13.3	0.27	9.13	100.00
Valdez-Cordova Census Area	9,362	3,567	\$23,046	\$48,734	\$58,946	8.5	0.27	10.39	100.00
Wade Hampton Census Area	7,717	1,768	\$8,717	\$30,184	\$33,033	29.2	0.45	10.28	100.00
Wrangell-Petersburg Census Area	5,910	2,303	\$23,494	\$46,434	\$54,274	9.8	1.01	39.47	64.52
Yakutat City and Borough	657	216	\$22,579	\$46,786	\$54,401	13.3	0.09	2.83	100.00
Yukon-Koyukuk Census Area	5,701	2,006	\$13,720	\$28,666	\$33,900	24.9	0.04	1.37	100.00

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V. The Commission Should Move Forward With Contribution Reform.

Finally, GCI echoes the numerous commenters who urged the Commission to move forward with USF contribution reform. As GCI has commented in the past, the Commission should address concerns about the increasing level of its contribution factor by adopting a

²⁸ Comments of General Communication, Inc. at 31, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337 (filed July 12, 2010).

²⁹ Section 706 Report at 27.

numbers-based contribution method. Such a system would help ensure that the USF remains stable for years, would better reflect the way that service is provided today, and would be easier to administer and for consumers to understand.

CONCLUSION

As it considers how best to transition to the CAF, the Commission must continue to recognize the uniqueness of Alaska. Alaskan commenters in particular agree that the Commission should continue existing CETC Tribal Lands policies mirroring those for ILECs, and that the NBP Model does not accurately reflect the state of broadband service in Alaska. The Commission should also recognize that satellite middle-mile transport will not meet the Alaska universal broadband challenge, and that continued high-cost support will be critical to ensuring technologically and economically viable terrestrial middle-mile delivery.

Respectfully submitted,

/s/

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