

DO NOT FILE COPY ORIGINAL

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of
Improving Communications Services for Native Nations

CG Docket No. 11-41

MAILED

MAR - 8 2011

FCC Mail Room

NOTICE OF INQUIRY

Adopted: March 3, 2011

Released: March 4, 2011

Comment Date: (45 days after publication in the Federal Register)

Reply Comment Date: (90 days after publication in the Federal Register)

By the Commission: Chairman Genachowski and Commissioners Copps, McDowell, Clyburn, and Baker issuing separate statements.

TABLE OF CONTENTS

Table with 2 columns: Heading and Paragraph #. Includes sections I through H with sub-sections and page numbers.

1. Background.....	46
2. Discussion.....	50
I. Satellite-Based Services.....	56
1. Background.....	56
2. Discussion.....	61
J. Disability Matters in Native Nations.....	67
1. Background.....	67
2. Discussion.....	72
K. Consultation and Coordination with Native Nations.....	73
1. Background.....	73
2. Discussion.....	75
L. General Comments on Issues Unique to Native Nations.....	77
IV. PROCEDURAL MATTERS.....	78
A. <i>Ex Parte</i> Presentations.....	78
B. Comment Filing Procedures.....	80
V. ORDERING CLAUSE.....	85

I. INTRODUCTION

1. A deep digital divide persists between the Native Nations of the United States and the rest of the country. While most Americans enjoy the communications services of the Internet age, Americans living on Tribal lands – the lands of federally recognized American Indian Tribes and Alaska Native Villages¹ – and Hawaiian Home Lands,² usually lack broadband access and many lack even basic telephone service. The Federal Communications Commission (FCC or Commission) has previously observed that "[b]y virtually any measure, communities on Tribal lands have historically had less access to telecommunications services than any other segment of the population."³ According to the most recent

¹ For the purposes of this Notice of Inquiry, the term "Native Nations" refers to federally recognized American Indian Tribes and Alaska Native Villages. The term "Tribe[s]" or "Federally recognized Tribe[s]" means any American Indian Tribe or Alaska Native Village, Nation, Band, Pueblo, or Community which is acknowledged by the federal government to have a government-to-government relationship with the United States and is eligible for the programs and services established by the United States for Indians. *See The Federally Recognized Indian Tribe List Act of 1994*, Pub. L. 103-454, 108 Stat. 4791 (1994) (the Secretary of the Interior is required to publish in the Federal Register an annual list of all Indian Tribes which the Secretary recognizes to be eligible for the special programs and services provided by the United States to Indians because of their status as Indians).

² We recognize the importance of including Native Hawaiian Home Lands in our Notice of Inquiry. *See Hawaiian Homes Commission Act, 1920*, Act July 9, 1921, 42 Stat. 108, *et seq.*, as amended (Hawaiian Homes Commission Act). While we do not have the same government-to-government relationship with Hawaiian Home Lands as we do with Tribal lands, discussed *infra*, and while any actions we take on this Notice of Inquiry are guided by that distinction, we nevertheless believe that our inquiry may be better informed by the inclusion of Hawaiian Home Lands. Hawaiian Home Lands are lands held in trust for the homesteading of Native Hawaiians, but not necessarily exclusively so. Unlike federal Indian reservations, non-Native entities may obtain leaseholds and entry onto Native Hawaiian Home Lands for the purposes of economic development. *See Hawaiian Homes Commission Act* at §§ 204-210, 220, 220.5, 227.

³ *Extending Wireless Telecommunications Services to Tribal Lands*, WT Docket No. 99-266, Report and Order and Further Notice of Rule Making, 15 FCC Rcd 11794, 11798 (2000); *see also Connecting America: The National* (continued...)

comprehensive data, only 67.9 percent of households on Tribal lands have basic telephone service,⁴ compared to the national average of approximately 98 percent.⁵ Moreover, while there is no solid data on broadband deployment on Tribal lands, availability is estimated at less than ten percent.⁶ The lack of robust communications services presents serious impediments to Native Nations' efforts to preserve their cultures and build their internal structures for self-governance, economic opportunity, health, education, public safety, and welfare – in short, to secure a brighter future for their people.

2. Native Nations face unique problems in acquiring communications services, particularly broadband high-speed Internet service. Substantial barriers to telecommunications deployment are prevalent throughout Tribal lands. Those barriers include rural, remote, rugged terrain and areas that are not connected to a road system that increase the cost of installing infrastructure, limited financial resources to pay for telecommunications services that deter investment by commercial providers, a shortage of technically trained Native Nation members to plan and implement improvements, and difficulty in obtaining rights-of-way to deploy infrastructure across some Tribal lands.⁷ It is thus not surprising that critical infrastructures rarely have come to Tribal lands without significant federal involvement, investment, and regulatory oversight.⁸ The lack of communications services leads to a departure of bright and energetic youth wishing to contribute to their communities, and makes it difficult to attract talented managers with valuable business development experience. Nevertheless, where Native Nations and their community members do have access to broadband, studies indicate that their rates of Internet use are on par with, if not higher than, national averages.⁹ Native Nations uniquely know their members and communities. Tribal- or Native-centric business models, which engage this knowledge, either through the Native Nations self-provisioning services or working with others to actively engage their core community institutions and members in deployment and adoption planning, have a greater chance of achieving successful and sustainable services on their Tribal lands.¹⁰

3. As we move forward into the 21st century and innovations in technology provide new modes of communication, such as broadband, the Commission is committed to ensuring that all Americans have access to emerging services and technologies. Native Nations are at the forefront of our efforts. We issue this Notice of Inquiry (*NOI*) to seek government-to-government consultation and

(...continued from previous page)

Broadband Plan, prepared by the staff of the Federal Communications Commission, March 2010 (*National Broadband Plan*) at 152, Box 8-4

⁴ See *Telephone Subscribership on American Indian Reservations and Off-Reservation Trust Lands*, Federal Communications Commission (May 2003) (based on data from the 2000 Decennial Census) (*2003 Telephone Subscribership on American Indian Reservations Report*).

⁵ See January 2006 GAO Report, *Telecommunications, Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands*, available at <http://www.gao.gov/new.items/d06189.pdf>. (last visited Jan. 17, 2011) (*January 2006 GAO Report*).

⁶ *National Broadband Plan* at 152, Box 8-4 and citations therein.

⁷ *January 2006 GAO Report* at 5.

⁸ Native Public Media, The National Congress of American Indians, New America Foundation Open Technologies Initiative, and Southern California Tribal Chairman's Association (Joint Native Filers), Ex Parte Comments, GN Docket Nos. 09-47, 09-51, 09-137, Dec. 24, 2009, at 2 (Joint Native Filers Ex Parte Comments).

⁹ *Id.* See also Traci L. Morris Ph.D., Native Public Media and Sascha D. Meinrath, New America Foundation, *NEW MEDIA, TECHNOLOGY AND INDIAN USE IN INDIAN COUNTRY* (Nov. 19, 2009) (*NPM/NAF New Media Study*).

¹⁰ See *infra* Section III.C., Native Nations Business Models for Deployment.

coordination with federally recognized Tribes and the input of inter-Tribal government associations, Native representative organizations, and the public on modifications to our rules and policies to provide greater economic, market entry, and adoption opportunities and incentives for Native Nations.¹¹ This *NOI* is being adopted contemporaneously with two other items: the Media Bureau's *Second Report and Order* continues our efforts to enable Native Nations and their entities to build and operate broadcast radio stations serving the needs and interests of Native communities;¹² and the Wireless Telecommunications Bureau's *Notice of Proposed Rulemaking* proposes to amend our rules to spur the provision of vital wireless communications services to Native communities.¹³

II. BACKGROUND

4. The Commission has long sought to fulfill its statutory purpose to make available to all citizens of the United States access to telecommunications and information services.¹⁴ There are 4.1 million American Indians and Alaska Natives in the United States and more than 565 federally recognized Tribes, each with their own unique political and governance structures.¹⁵ It is well-established that federally recognized Tribes have inherent sovereignty and self-determination, and exercise jurisdictional powers over their members and territory with the obligations to "maintain peace and good order, improve their condition, establish school systems, and aid their people..." within their jurisdictions.¹⁶ In 2000, the Commission formally recognized this sovereignty in its Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes.¹⁷ The Commission

¹¹ This *NOI* will provide Tribal leaders, Native Nations, organizations, and other entities with the opportunity to inform the Commission on a number of issues and further develop and expand on recommendations and comments expressed in the National Broadband Plan. See, e.g., *National Broadband Plan* at 152-55, 184-85.

¹² See *Promoting Rural Radio Service and Streamlining Procedures*, MB Docket No. 09-52, Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, FCC 11-28 (rel. Mar. 3, 2011) (*Rural Radio Tribal Priority Order*).

¹³ See *Improving Communications Services for Native Nations by Promoting Greater Utilization of Spectrum Over Tribal Lands*, WTB Docket No. 11-40, Notice of Proposed Rulemaking, FCC 11-29 (rel. Mar. 3, 2011) (*Wireless Spectrum Tribal Lands NPRM*).

¹⁴ Communications Act of 1934, as amended, 47 U.S.C. § 151, *et. seq.* (the Act); see also Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (1996 Act). The Act mandates that the Commission base its "policies for the preservation and advancement of universal service on [among other principles, that] consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to 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 the rates charged for similar services in urban areas." 47 U.S.C. § 254(b)(3). In addition, Section 1 of the Act directs the Commission to "regulate interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, nation-wide . . . wire and radio service with adequate facilities at reasonable charges . . ." The Commission's goal of providing telecommunications services to Tribal lands is also statutorily grounded in other provisions of Act, including Sections 214(e)(3) and (e)(6) and Section 254(i). See also Section 706 of the 1996 Act, codified at 47 U.S.C. § 1302.

¹⁵ Native Public Media and The National Congress of American Indians, Joint Comments, GN Docket Nos. 09-47, 09-51, 09-137, Nov. 9, 2009, at 2 (NPM/NCAI Joint Comments).

¹⁶ *Policies to Promote Rural Radio Service and to Streamline Allotments and Assignment Procedures*, MB Docket No. 09-52, First Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 1583, 1585 (2010) (*Rural Radio Order*) (citations omitted).

¹⁷ Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes, 16 FCC Rcd (continued...)

reaffirmed the unique legal relationship that exists between the federal government and Tribal governments, as reflected in the Constitution of the United States, treaties, federal statutes, Executive orders, and numerous court decisions.¹⁸

5. The federal government has a trust relationship with federally recognized Tribes,¹⁹ and this historic trust relationship requires the federal government to adhere to certain fiduciary standards in its dealings with Tribes.²⁰ In this regard, the federal government has a longstanding policy of promoting Tribal self-sufficiency and economic development, as embodied in various federal statutes.²¹ As an independent agency of the federal government, we recognize our own general trust relationship with, and responsibility to, federally recognized Tribes.²² The Commission also recognizes "the rights of Indian Tribal governments to set their own communications priorities and goals for the welfare of their membership."²³ We believe any inquiry into potential solutions to communications deployment challenges on Tribal lands will benefit from the inclusion of Hawaiian Home Lands, as, much like Tribal lands, these lands have a trust status for Native Hawaiians, both as homesteads and for non-Native economic development activities that benefit the Native Hawaiian community.²⁴ Thus, any approach to deploying communications services, removing barriers to entry, and increasing broadband availability and adoption must recognize Tribal sovereignty, autonomy, and independence, the unique status and needs of Native Nations and Native communities, the importance of consultation with Native Nation government

(...continued from previous page)

4078, 4080 (2000) (*Tribal Policy Statement*).

¹⁸ *Id.*

¹⁹ See, e.g., *Seminole Nation v. United States*, 316 U.S. 286, 296 (1942) (citing *Cherokee Nation v. State of Georgia*, 30 U.S. 1 (1831); *United States v. Kagama*, 118 U.S. 375 (1886); *Choctaw Nation v. United States*, 119 U.S. 1 (1886); *United States v. Pelican*, 232 U.S. 442 (1914); *United States v. Creek Nation*, 295 U.S. 103 (1935); *Tulee v. State of Washington*, 315 U.S. 681 (1942).

²⁰ See, e.g., *United States v. Mitchell*, 463 U.S. 206 (1983).

²¹ See, e.g., *The Indian Financing Act of 1974*, 25 U.S.C. § 1451(1974); *The Indian Self-Determination and Education Assistance Act of 1975*, 25 U.S.C. § 450 (1975); *The Indian Civil Rights Act of 1968*, 25 U.S.C. § 1301 (1968). See also *White Mountain Apache Tribe v. Bracker*, 448 U.S. 136, 142 (1980); *New Mexico v. Mescalero Apache Tribe*, 462 U.S. 324, 334 (1983).

²² *Tribal Policy Statement*, 16 FCC Rcd at 4080-81.

²³ *Id.*

²⁴ *Policy Briefing Memo of the Broadband Priorities of Native Communities on Trust Lands*, Native Hawaiian Policy Center & Council for Native Hawaiian Advancement, June 2010, at pages 7-9: ("In 1920, relying in part on the precedent of the General Allotment Act, which provided individual lands for American Indians under Federal protections, Congress enacted the Hawaiian Homes Commission Act to rehabilitate the Native Hawaiian people by setting aside for Native Hawaiian settlement and agriculture use 200,000 acres of the 'ceded' lands, i.e. the former Crown and public lands of the Kingdom of Hawaii. The legislative history of the Act makes clear that Congress considered Native Hawaiians to be Hawaii's indigenous peoples, and sought to extend towards Native Hawaiians, federal policies similar to that of American Indians and Alaska Natives ... As a condition of Statehood in 1959, the State of Hawaii agreed to take over the administration of the Hawaiian Homes Commission Act. In 1960, the Department of Hawaiian Homelands (DHHL) was created to administer the Hawaiian Home Lands trust. The United States maintains its trust responsibility through Section 4 of the Hawaii Admissions Act, which requires United States consent to certain amendments made to the Hawaiian Homes Commission Act.") (citing from *Mauka to Makai, The River of Justice Must Flow Freely*, U.S. Departments of Justice and the Interior, Draft Report, October 2000, and citing House Committee on Territories, Rehabilitation and Colonization of Hawaiians... (citation abridged), H.R. Doc. No. 839, 66th Cong., 2d Sess. at 4 (1920)).

and community leaders, and the critical role of Native anchor institutions.

III. TOPICS AND QUESTIONS

A. Native Nations Priority

1. Background

6. In the *Rural Radio Order*, the Commission established a Tribal Priority in allocating and assigning broadcast radio channels.²⁵ Specifically, the Commission adopted a Tribal Priority under Section 307(b) of the Communications Act, which governs the allocation of radio licenses to “provide a fair, efficient, and equitable distribution of radio service” to states and communities.²⁶ The record in the proceeding reflected that several Tribal groups had expressed concern about their ability to establish radio service to their own people, communities, and Tribal lands.²⁷ Recognizing that only 41 radio stations were licensed to federally-recognized Tribes or affiliated groups, representing less than one-third of one percent of the more than 14,000 radio stations in the United States, the Commission concluded that the establishment of a Tribal priority would “advance our Section 307(b) goals and serve the public interest by enabling Indian [T]ribal governments to provide radio service tailored to the needs and interests of their local communities that they are uniquely capable of providing.”²⁸ The Commission also stated its belief in the importance of “a robust and meaningful opportunity for Tribes to pursue commercial licensing opportunities and to determine, over time, how commercial stations can best serve [T]ribal needs.”²⁹

7. The Commission found that a Tribal Priority advanced the Commission’s longstanding commitment “to work with Indian Tribes on a government-to-government basis ... to ensure, through its regulations and policy initiatives, and consistent with Section 1 of the Communications Act of 1934, that Indian Tribes have adequate access to communications services.”³⁰ Because of their status as sovereign nations responsible for, among other things, “maintaining and sustaining their sacred histories, languages, and traditions,” Tribes have a vital role to play in serving the needs and interests of their local communities.³¹ Emphasizing the historic federal trust relationship between itself and the Tribes, and the ability of the Commission to create the Tribal Priority based on the constitutional classification³² of Tribes as governmental entities,³³ the Commission limited eligibility for the Tribal Priority to Tribes and entities

²⁵ See *Rural Radio Order*, 25 FCC Rcd at 1587.

²⁶ See 47 U.S.C. § 307(b).

²⁷ See *Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, MB Docket No. 09-52, Notice of Proposed Rulemaking, 24 FCC Rcd 5239, 5248 n.30 (2009) (*Rural Radio NPRM*) (citing comments from Native Public Media).

²⁸ *Rural Radio Order*, 25 FCC Rcd at 1588.

²⁹ *Id.* at 1591.

³⁰ *Id.* at 1588 (citing *Tribal Policy Statement*, 16 FCC Rcd at 4079).

³¹ *Id.* at 1587-88 (citations omitted).

³² See U.S. CONST. art. I, § 8, cl. 3. See also U.S. CONST. art. II, § 2, cl. 2.

³³ *Rural Radio Order*, 25 FCC Rcd at 1590 (“...the priority established herein for the benefit of federally recognized Tribes is not constitutionally suspect because it is based on ‘the unique legal status of Indian tribes under Federal law.’” (citing *Morton v. Mancari*, 417 U.S. 535, 551-52 (1974))). The Commission further found that “[a]s the D.C. Circuit explained in 2003, the Supreme Court’s decisions leave no doubt that federal government action directed at Indian tribes, ‘although relating to Indians as such, is not based on impermissible racial classifications.’” *Id.* (citing *American Federation of Government Employees, and AFL-CIO v. U.S.*, 330 F.3d 513, 523 (D.C. Cir. 2003), cert.

(continued...)

majority-owned by Tribes and proposing to serve Tribal lands.³⁴

2. Discussion

8. We seek comment on whether a Native Nations priority, analogous to the one adopted in the *Rural Radio Order*, should be adopted to make it easier for Native Nations to provide other communications services, such as wireless, wireline, or satellite services, to their communities. Are there other Commission rules that, either directly or indirectly, impose barriers to entry for Native Nations seeking to provide communications services to their communities? If so, would it be in the public interest to provide federally recognized Tribes with a priority in those contexts in an effort to lower barriers to entry and facilitate the entry of Native Nation-owned and/or controlled providers? We ask commenters to cite specific Commission rules, identify how those rules present barriers to entry, and describe the impact of those barriers to entry on Native Nation governments, service providers, and Native communities. We also ask commenters to specifically identify and describe the public interest benefits – whether economic, social, or other – that would result from additional Native Nation priorities. Can such a priority, or similar mechanism, be applied to Hawaiian Home Lands? Finally, we seek comment on how such Native Nations priorities should be structured and any specific requirements and/or obligations that should be imposed on the beneficiaries of such priorities.

B. Native Nations Broadband Fund

1. Background

9. Recognizing that Tribal lands face unique challenges and significant obstacles to the deployment of broadband infrastructure, the National Broadband Plan states that Native Nations need substantially greater financial support than is presently available through existing federal programs to accelerate broadband deployment on Tribal lands.³⁵ As a result, the Plan recommends that Congress consider establishing a Native Nations Broadband Fund to support sustainable broadband deployment and adoption on Tribal lands.³⁶ The Plan notes that grants from a new Native Nations Broadband Fund could be used for a variety of purposes, including bringing high-capacity connectivity to governmental headquarters or other anchor institutions, deployment planning, infrastructure build out, feasibility studies, technical assistance, business plan development and implementation, digital literacy, and outreach.³⁷ In addition, the National Broadband Plan recommends that a portion of the Native Nations Broadband Fund provide small, targeted grants on an expedited basis for Internet access and adoption

(...continued from previous page)

denied, 540 U.S. 1088 (2003). In *American Federation of Government Employees*, the Court held that “[its] decisions ‘leave no doubt that federal legislation with respect to Indian tribes, although relating to Indians as such, is not based on impermissible racial classifications.’” *Id.* (quoting *United States v. Antelope*, 430 U.S. 641, 645 (1977)) (“federal regulation of Indian affairs is not based upon impermissible classifications. Rather, such regulation is rooted in the unique status of Indians as ‘a separate people’ with their own political institutions.”))

³⁴ *Rural Radio Order*, 25 FCC Rcd at 1596. Majority ownership or control in this context is defined as more than 51 percent Tribal ownership or control. See 47 C.F.R. § 73.7000. Among other requirements, the *Rural Radio Order* stated that at least 50 percent of the principal community contour of the proposed radio facilities must cover Tribal lands (with the proviso that those lands need not all be the same Tribe’s lands) and imposed additional obligations on recipients of the Tribal Priority. *Rural Radio Order*, 25 FCC Rcd at 1596-97.

³⁵ *National Broadband Plan* at 152.

³⁶ *Id.* at Recommendation 8.18.

³⁷ *Id.*

programs.³⁸ The Plan also recommends that the National Telecommunications and Information Administration (NTIA) administer the Native Nations Broadband Fund, in consultation with the Commission and the Bureau of Indian Affairs (BIA), and that all federal agencies seeking to upgrade connectivity on Tribal lands coordinate such upgrades with Native Nations and the Native Nation Broadband Fund grant-making process.³⁹

2. Discussion

10. We seek input and comment on a number of issues associated with establishment of a Native Nations Broadband Fund.⁴⁰ First, we seek comment on the need for a Native Nations Broadband Fund. We ask commenters to specifically articulate whether they believe such a fund is necessary and, if so, to explain why it is necessary and provide supporting data. We also seek comment on the requirements for a Native Nations Broadband Fund. For example, are the purposes for which such a fund would be used as recommended in the National Broadband Plan comprehensive enough or overly broad? Are there additional components that commenters believe should be included? We ask commenters to be as specific as possible in analyzing the components recommended in the Plan and in recommending changes and/or additional components that would be critical to the establishment of a Native Nations Broadband Fund.

11. We also seek comment on other issues associated with a Native Nations Broadband Fund. For example, in light of the Tribes' experience with Recovery Act funding⁴¹ through the Broadband Initiatives Program (BIP)⁴² and the Broadband Technology Opportunities Program (BTOP),⁴³ are there lessons learned that could inform the establishment of a Native Nations Broadband Fund, both in terms of administration and purposes? What level of funding is necessary to fulfill the purposes identified in the National Broadband Plan and how should it be allocated and administered? To what extent should the Native Nations Broadband Fund provide support for new market entry development and deployment? Should this fund be prioritized to presently unserved Tribal lands? Are there administrative issues that, if addressed at the establishment phase, would make implementation of a Native Nations Broadband Fund more efficient, cost-effective, and accessible to potential beneficiaries on Tribal lands? What entity or entities should administer such a fund? Finally, given current fiscal constraints on the federal government, are there alternative ways to accomplish the goals set forth in the National Broadband Plan without such a fund?

C. Native Nations Business Models for Deployment

1. Background

12. Native Nations are intimately acquainted with their members' needs and have valuable

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ We acknowledge that, although there is no express statutory authority to create a Native Nations Broadband Fund, the Commission may be able to create or otherwise provide support within its current statutory authority.

⁴¹ American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(k)(2)(D), 123 Stat. 115, 516 (2009) (Recovery Act).

⁴² BIP is administered by the Rural Utilities Service (RUS) of the United States Department of Agriculture. See <http://broadbandusa.sc.egov.usda.gov/BIPportal/index.htm>. (last visited Jan. 24, 2011).

⁴³ BTOP is administered by the National Telecommunications and Information Administration (NTIA) of the United States Department of Commerce. See <http://www2.ntia.doc.gov>. (last visited Jan. 24, 2011).

insight into how to meet them. While critical infrastructures have rarely come to Tribal lands without significant federal involvement, investment, and oversight, Native Nations have taken different approaches to economic development.⁴⁴ “Tribal-centric” business models – those that actively engage the Native Nation, its core community institutions, and members in deployment and adoption planning – have a greater chance of establishing sustainable services on Tribal lands.⁴⁵ Utilizing this approach, a number of Native Nations have successfully established service providers that have deployed critical communications infrastructure on their lands. In the telecommunications context, for example, eight Tribally-owned and operated local exchange carriers and one wireless provider have sought and received eligible telecommunications carriers (ETC) status on their Tribal lands.⁴⁶ These Native Nation-owned ETCs, which comprise the National Tribal Telecommunications Association, with the help of universal service funds and other federal funds, have been able to develop successful business models, deploy telecommunications networks, and provide services at levels previously unseen to their communities. In the media context, KUYI (88.1 FM), also known as Hopi Radio, has been providing news, entertainment, and language and cultural preservation to the Hopi community for over 10 years. Among KUYI’s goals are “communicat[ing] Native issues and programs in order to improve an understanding and appreciation of indigenous cultures” and “creat[ing] and maintain[ing] a local outlet and production capability for statewide and national public radio programming with particular emphasis on Hopi perspectives and interests.”⁴⁷

13. In the National Broadband Plan docket, the National Congress of American Indians and Native Public Media jointly submitted a 2009 study of Native communities conducted by Native Public Media and the New America Foundation, whose purpose was to understand Native use of broadband technologies in building sustained, healthy, engaged, and independent Native communities.⁴⁸ The three-

⁴⁴ See, e.g., Cornell, Stephen and Joseph P. Kalt, “Two Approaches to the Development of Native Nations: One Works, the Other Doesn’t,” in *REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT*, University of Arizona Press (2008).

⁴⁵ See generally National Tribal Telecommunications Association, Comments, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 05-337, July 12, 2010 (NTTA Comments). See also Joint Native Filers Comments at 4.

⁴⁶ The eight Tribally-owned local exchange carriers with ETC designations are: Hopi Telecommunications, Inc. (Hopi Tribe); San Carlos Telecommunications and Utilities, Inc. (San Carlos Apache Tribe); Mescalero Apache Telecommunications, Inc. (Mescalero Apache Tribe); Gila River Telecommunications, Inc. (Gila River Indian Community); Saddleback Communications (Salt River Pima Maricopa Indian Tribe); Fort Mojave Telecommunications, Inc. (Fort Mojave Indian Tribe); Tohono O’odham Utility Authority (Tohono O’odham Nation); and Cheyenne River Sioux Tribe Telephone Authority (Cheyenne River Sioux Tribe). The Commission performed the majority of these ETC designations. Mescalero Apache Telecommunications, Inc. received its ETC designation from the New Mexico Public Regulatory Commission. Standing Rock Telecommunications, Inc. (Standing Rock Sioux Tribe) is the Tribally-owned wireless company, and received its ETC designation from the Commission. Some issues related to Standing Rock’s ETC designation remain under review at the Commission. See, e.g., *Comment Sought on Whether Standing Rock Telecommunications, Inc. Should Be Designated An ETC in Partial Rural Wire Centers So It Can Serve the Entire Standing Rock Sioux Reservation*, WC Docket No. 09-197, Public Notice, DA 10-1602 (rel. Aug. 24, 2010); *Comment Sought on Standing Rock Telecommunications, Inc.’s Petition for Reconsideration of the Standing Rock ETC Designation and Redefinition Order*, WC Docket No. 09-197, Public Notice, DA 10-1988 (rel. Oct. 15, 2010).

⁴⁷ See <http://www.kuyi.net/about-kuyi> (last visited Jan. 24, 2011). KUYI Hopi Radio is run by a small station staff and many volunteers, and serves the Hopi Reservation, Flagstaff, Tuba City, Winslow, and the I-40 corridor in Arizona. In June 2010, KUYI went live online. See www.kuyi.net/listen-live (last visited Jan. 24, 2011).

⁴⁸ See generally *NPM/NAF New Media Study*.

part *NPM/NAF New Media Study* included: (1) a survey of members of 120 Tribes in 28 states concerning their access to broadband on Tribal lands; (2) six case studies related to new media in Indian Country, four of which focused on broadband deployment projects; and (3) a number of recommendations for fostering broadband deployment and use in Indian Country.⁴⁹ The qualitative case study analysis contained in the second part of the *NPM/NAF New Media Study* contains information critical to our exploration of successful business and deployment models on Tribal lands, including such factors as design and management, use of technology, financing information, the array of end-user services, and community impact.⁵⁰

2. Discussion

14. We seek comment and additional information on the basic tools that Native Nations need in order to effectively build sustainable business and deployment models to address the significant communications infrastructure needs (including the road system), market challenges, and demand aggregation requirements specific to Tribal lands. For example, the providers of telecommunications and broadcast services that are owned and operated by Native Nations themselves took concrete steps to prepare for the daunting task of providing communications services to their communities. We seek comment on, for instance, what specific steps those providers took in developing a business case for the provision of service; engaging Native Nation leaders in that process and receiving their affirmative approval; securing the capital, financing, equipment, and other infrastructure components necessary to implement their business plans; and implementing the business plan and deploying services. Were there any Commission rules that served as barriers to entry or otherwise provided obstacles or significant challenges to the provision of service by Native Nations to their own communities?

15. We also seek comment on the extent to which deployment on their lands is hampered by conditions that are present both on and outside of the Native Nation's own lands. For example, is distance from other infrastructure a factor that is prevalent on Tribal lands and presents a barrier to deployment? Do business models for deployment suffer because costs on Tribal lands are higher, and expected revenue lower? Are there factors that present challenges to deployment specific to Hawaiian Home Lands? We seek comment on how these factors operate, either in combination or separately, to exacerbate the challenge to deploying communications services on Tribal lands and Hawaiian Home Lands.

16. We ask commenters to be as specific as possible in outlining the process of developing a business case for the deployment of service and in identifying Commission rules or policies that either facilitated or impeded that process. Are there common successful demand aggregation techniques that Native Nations have employed? Are there best practices that Native Nations seeking to become service providers on their own lands should undertake? Are there anchor institutions that are particularly important to communications services deployment planning on Tribal lands? Is there a "Tribal-centric" approach to developing the business case model that is essential to the eventual success of that model, and what characterizes such an approach? We also seek comment on what unique challenges and issues Native Nations without significant land holdings may face in the development of needed infrastructure and provision of communications services.

⁴⁹ *Id.*

⁵⁰ *Id.*

D. Native Nations Adoption and Utilization

1. Background

17. Communities on Tribal lands historically have experienced far less access to telecommunications services than any other segment of the population, and this situation has been particularly acute in the broadband context. The telephone penetration rate on Tribal lands is 67.9 percent,⁵¹ while the broadband availability rate is less than 10 percent.⁵² The exact rate of broadband adoption or subscribership, however, is unknown, in part because there has not been a comprehensive federal survey to date that has focused on collecting subscribership information on Tribal lands.⁵³ However, limited research has revealed that, where Native Nations have access to broadband, their members' rates of Internet use are the same as, if not greater than, the national average.⁵⁴ These findings suggest that, if infrastructure build-out is achieved, consumers and members of Native Nations will strive to adopt and utilize the Internet.

18. The National Broadband Plan cited a number of barriers to broadband adoption and utilization for all consumers, including cost, digital literacy, relevance, and accessibility.⁵⁵ The Plan recommended a series of guiding principles for broadband adoption and utilization, including: focusing on barriers to adoption; focusing on broadband in the home; promoting connectivity across an entire community; promoting broadband utilization; planning for changes in technology; measuring and adjusting adoption plans; and forming partnerships across stakeholder groups.⁵⁶ The Plan also made a number of recommendations to address the cost, digital literacy, relevance, and accessibility barriers to broadband adoption and utilization.⁵⁷

2. Discussion

19. We seek comment on the challenges faced by Native Nations in achieving broadband adoption and utilization. For example, do the barriers identified in the National Broadband Plan represent a comprehensive assessment of the barriers to adoption and utilization that exist on Tribal lands and Hawaiian Home Lands? Alternatively, are there different and/or additional barriers that are unique to Tribal lands and Hawaiian Home Lands? What role do, or should, anchor institutions such as schools, libraries, health care facilities, and Native Nation offices, play in the deployment and subsequent adoption and utilization of broadband on Tribal lands? Are the universal service schools and libraries program, or E-rate, community use rules being used on Tribal lands and, if so, how have the rules made a positive impact on adoption and utilization?⁵⁸ What impact has telemedicine had on Tribal lands, or what impact could it have if widely available in Native communities? What other types of anchor institutions on

⁵¹ See *2003 Telephone Subscribership on American Indian Reservations Report*.

⁵² See *National Broadband Plan* at 152, Box 8-4 and citations therein.

⁵³ Joint Native Filers Ex Parte Comments at 2.

⁵⁴ See generally *NPM/NAF New Media Study*.

⁵⁵ *National Broadband Plan* at 168-69.

⁵⁶ *Id.* at 171.

⁵⁷ *Id.* at 171-82

⁵⁸ See *Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Sixth Report and Order, 25 FCC Rcd 18762, 18774, at para. 22 (2010) (allowing schools to open their facilities, when classes are not in session, to the general public to utilize services and facilities supported by the E-rate program).

Tribal lands play an important role in adoption and utilization by the members of Native Nations? We seek comment on adoption models that have worked on Tribal lands, as well as models that have failed to achieve widespread adoption and utilization of broadband. Are there, for example, Tribal-centric models that have succeeded? If so, we seek comment on how those models work and the levels of adoption and utilization that they have achieved on Tribal lands. We also seek comment on whether there is any data available regarding broadband adoption and utilization within particular Native Nations and, if so, we ask commenters to identify the source(s) of that data.

20. We also seek comment on the appropriate role of government in spurring sustainable broadband adoption on Tribal lands and Hawaiian Home Lands. For example, how can the federal government work most effectively with Native Nations to facilitate broadband adoption and utilization planning? What should be the role of public-private partnerships involving federal and Native Nations and non-profit community and private industry partners in supporting widespread broadband adoption and utilization on Tribal lands? Are there specific Commission rules that either help or impede broadband adoption and utilization on Tribal lands?

E. Defining Tribal Lands

1. Background

21. The Commission's rules currently reference several different definitions of Tribal lands.⁵⁹ For example, in determining eligibility for the universal service enhanced Lifeline and Link Up programs, Tribal lands are encompassed within the definition of "reservation," which in turn is defined as "any federally recognized Indian tribe's reservation, pueblo, or colony, including former reservations in Oklahoma, Alaska Native regions established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688), and Indian allotments."⁶⁰ In establishing priorities for radio licenses, Tribal lands are defined to include "American Indian Reservations and Trust Lands, Tribal Jurisdiction Statistical Areas, Tribal Designated Statistical Areas, Hawaiian [Home Lands], and Alaska Native Village Statistical Areas, as well as the communities situated on such lands."⁶¹

2. Discussion

22. We seek comment on whether the Commission should consider adopting a single definition of Tribal lands for all communications-related regulation and, if so, precisely what that

⁵⁹ See, e.g., *Extending Wireless Telecommunications Services to Tribal Lands*, WT Docket No. 99-266, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 11794 (2000); *Federal-State Joint Board on Universal Service: Promoting Deployment and Subscriberhip in Unserved and Underserved Areas, Including Tribal and Insular Areas*; *Smith Bagley, Inc., Cheyenne River Sioux Tribe Telephone Authority, Western Wireless Corporation, Wyoming Cellco Partnership d/b/a/ Bell Atlantic Mobile, Inc., Petitions for Designation as an Eligible Telecommunications Carrier and for Related Waivers to Provide Universal Service*, CC Docket No. 96-45, Twelfth Report and Order, Memorandum Opinion and Order, and Further Notice of Proposed Rulemaking, 15 FCC Rcd 12208 (2000) (*Twelfth Report and Order*), recon. by *Promoting Deployment and Subscriberhip in Unserved and Underserved Areas, Including Tribal and Insular Areas*, CC Docket No. 96-45, Memorandum Opinion and Order, Order, and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10958 (2003) (*Tribal Recon. Order*); *Rural Radio Order*, 25 FCC Rcd 1583.

⁶⁰ 47 C.F.R. § 54.400(e). The Commission uses the same definition of Tribal lands for purposes of the Tribal Lands Bidding Credit. See *Extending Wireless Telecommunications Services to Tribal Lands*, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd at 11796 n.1.

⁶¹ See *Rural Radio Order*, 25 FCC Rcd at 1587, n.15. See also *Rural Radio Tribal Priority Order*, FCC 11-28.

definition should encompass.⁶² For example, should the definition broadly encompass American Indian Reservations and Trust Lands, Tribal Jurisdiction Statistical Areas, Tribal Designated Statistical Areas, Hawaiian Home Lands, and Alaska Native Village Statistical Areas, as is the case in the media context today? Alternatively, should the definition be more narrowly tailored to reservations, as defined in the universal service context? Should the Commission include a provision in the definition of Tribal lands that would encompass Tribes without significant land holdings? If so, we ask commenters to detail what such a provision would entail. We also seek comment on the broader question of how the Commission's policies designed to bring communications services to Native Nations could be designed to benefit members who do not live on Tribal lands.

F. Eligible Telecommunications Carrier Designations on Tribal Lands

1. Background

23. The Act seeks to ensure that low-income consumers and those in rural, insular, and high-cost areas have access to services that are reasonably comparable to those enjoyed by urban consumers at reasonably comparable rates.⁶³ A telecommunications carrier must be designated as an eligible telecommunications carrier (ETC) and must offer services throughout its entire service area in order to receive universal service support through the high-cost and low-income programs.⁶⁴ Although state commissions have primary responsibility for designating ETCs,⁶⁵ that responsibility shifts to the Commission for carriers "providing telephone exchange service and exchange access that is not subject to the jurisdiction of a State commission."⁶⁶

24. In 2000, the Commission established a two-step framework for designating ETCs on Tribal lands.⁶⁷ The process involves the Commission first determining whether a state commission or the Commission itself has jurisdiction to designate an ETC on a specific Tribal land.⁶⁸ In this particularized inquiry, the Commission determines whether the carrier is subject to the jurisdiction of a state commission or whether it is subject to a Native Nation's authority given the nature of the Native Nation's governmental interests involved. In the second step of the process, when the Commission has jurisdiction

⁶² We note that, for some purposes, we may be constrained by statute as to the definition of Tribal lands that we may adopt. For example, the National Historic Preservation Act defines "Tribal lands" as "(A) all lands within the exterior boundaries of any Indian reservation; and (B) all dependent Indian communities." 16 U.S.C. § 470w(14); see also 36 C.F.R. § 800.16(x) (regulations of the Advisory Council on Historic Preservation).

⁶³ 47 U.S.C. § 254(b)(3).

⁶⁴ 47 U.S.C. § 254(e) (stating that only an ETC is "eligible to receive specific Federal universal service support"). The low-income program is more widely known as Lifeline and Link Up. Service providers seeking universal service support through the schools and libraries program (otherwise known as E-rate) and the rural health care program need not be designated as ETCs. See 47 C.F.R. §§ 54.501, 54.516 (the E-rate program); §§ 54.603, 54.621 (the rural health care program).

⁶⁵ 47 U.S.C. § 214(e)(2); see *Twelfth Report and Order*, 15 FCC Rcd at 12255, para. 93.

⁶⁶ 47 U.S.C. § 214(e)(6); see, e.g., *Virginia Cellular, LLC Petition for Designation as an Eligible Telecommunications Carrier for the Commonwealth of Virginia*, CC Docket No. 96-45, Memorandum Opinion and Order, 19 FCC Rcd 1563 (2004) (*Virginia Cellular Order*); *Highland Cellular, Inc. Petition for Designation as an Eligible Telecommunications Carrier for the Commonwealth of Virginia*, CC Docket No. 96-45, Memorandum Opinion and Order, 19 FCC Rcd 6422 (2004) (*Highland Cellular Order*).

⁶⁷ See generally *Twelfth Report and Order*, 15 FCC Rcd 12208.

⁶⁸ *Id.* at 12265-69, paras. 115-27; *Tribal Recon. Order*, 18 FCC Rcd at 10964 n.28.

to designate the carrier as an ETC,⁶⁹ it proceeds to consider the merits of the carrier's petition for designation.⁷⁰ To date, the Commission has designated as ETCs several telecommunications carriers owned and operated by Native Nations.⁷¹

25. The National Broadband Plan recommended that "Tribal governments should play an integral role in the process for designating carriers who may receive [universal service] support to serve Tribal lands."⁷² For example, the Plan recommended that the ETC designation process should require consultation with the Native Nation after a carrier files a petition to serve a particular Tribal land area and also should require the carrier to file a plan with both the Commission (or the state, in those cases in which the carrier is seeking ETC designation from the state) and the Native Nation on proposed plans to serve the area.⁷³

26. The universal service low-income program is comprised primarily of two components – Lifeline and Link Up.⁷⁴ Lifeline reimburses ETCs for discounting eligible low-income consumers' monthly bills for basic, local telephone service.⁷⁵ Link Up reimburses ETCs for discounting connection charges incurred when an eligible low-income consumer commences service for the first time or at a new address.⁷⁶ The Commission's rules provide for enhanced, or additional, Lifeline and Link Up support for ETCs serving eligible low-income consumers living on Tribal lands. That is, Tier 4 of Lifeline support provides up to an additional \$25 per month discount on telephone service for eligible residents of Tribal lands,⁷⁷ while Link Up provides up to an additional \$70 reduction in connection charges for eligible residents of Tribal lands.⁷⁸ A number of carriers have sought and received ETC designation for the purpose of participating in the Lifeline program only.⁷⁹ We note that today the Commission adopted a

⁶⁹ *Twelfth Report and Order*, 15 FCC Rcd at 12266–12267, paras. 120–22.

⁷⁰ *Id.* at 12265, para. 115.

⁷¹ *See, e.g., Federal-State Joint Board on Universal Service, Hopi Telecommunications, Inc. Petition for Designation as an Eligible Telecommunications Carrier for the Hopi Reservation in Arizona*, CC Docket No. 96-45, Order, 22 FCC Rcd 1866 (2007).

⁷² *National Broadband Plan* at 146, Recommendation 8.5.

⁷³ *Id.*

⁷⁴ Eligible low-income consumers are also eligible for Toll Limitation Service support, which reimburses ETCs for providing toll blocking and toll control at no cost to the customer. *See* 47 C.F.R. § 54.401(a)(3).

⁷⁵ *See* 47 C.F.R. § 54.401.

⁷⁶ *See* 47 C.F.R. § 54.411.

⁷⁷ *See* 47 C.F.R. § 54.403(a)(4). Tier One is available to all eligible Lifeline subscribers and is equal to the incumbent ETC's subscriber line charge (currently capped at \$6.50 per month). *Id.* at § 54.403(a)(1). Tier Two is an additional \$1.75 per month, available if the ETC agrees to pass through the full amount of the discount to the consumer. *Id.* at § 54.403(a)(2). Tier Three is up to an additional \$1.75 per month, based on whether the state or carrier has contributed additional support. *Id.* at § 54.403(a)(3). That is, the maximum federal Lifeline discount available to eligible low-income consumers not residing on Tribal lands is \$10 per month, while the maximum federal discount available to eligible low-income consumers residing on Tribal lands is \$35 per month.

⁷⁸ *See* 47 C.F.R. § 54.411(a)(3). All eligible low-income consumers are eligible to receive a Link Up discount amounting to one-half of the customary telephone connection charge, up to a maximum of \$30. The maximum federal Link Up discount available to eligible low-income consumers residing on Tribal lands, therefore, is \$100.

Notice of Proposed Rulemaking in which we seek comment on a number of proposals to reform and modernize the Lifeline and Link Up programs.⁸⁰

27. A major objective of high-cost universal service support historically has been to help ensure that consumers have access to telecommunications services in areas where the cost of providing such services would otherwise be prohibitively high.⁸¹ Currently, the Commission's rules provide federal high-cost support to non-rural and rural carriers under different support mechanisms.⁸² While rural carriers receive support based on their embedded costs, support to non-rural carriers is based on the forward-looking economic cost of constructing and operating the network, as determined by the Commission's cost model.⁸³ Last month, the Commission adopted the *Connect America Fund Notice of Proposed Rulemaking*, in which we sought comment on issues affecting Native Nations.⁸⁴

2. Discussion

28. We seek comment on a number of issues related to ETC designation on Tribal lands. First, we seek comment on how specific an ETC designation including Tribal lands should be. For

(...continued from previous page)

⁷⁹ See, e.g., *Federal-State Joint Board on Universal Service, TracFone Wireless, Inc., Petitions for Designation as an Eligible Telecommunications Carrier in the State of New York, the State of Florida, the Commonwealth of Virginia, the State of Connecticut, the Commonwealth of Massachusetts, the State of Alabama, the State of North Carolina, and the State of Tennessee; Petitions for Designation as an Eligible Telecommunications Carrier for the Limited Purpose of Offering Lifeline Service to Qualified Households in the State of Delaware, New Hampshire, the Commonwealth of Pennsylvania, and the District of Columbia*, CC Docket No. 96-45, Order, 23 FCC Rcd 6206 (*TracFone ETC Designation Order*); *Virgin Mobile USA, L.P. Petition for Forbearance from 47 U.S.C. § 214(e)(1)(A)*; *Petitions for Designation as an Eligible Telecommunications Carrier in the State of New York and the Commonwealth of Virginia; Petitions for Limited Designation as an Eligible Telecommunications Carrier in the State of North Carolina and the State of Tennessee*, CC Docket No. 96-45, Order, 24 FCC Rcd 3381 (2009) (*Virgin Mobile Order*).

⁸⁰ *Lifeline and Link Up Reform and Modernization; Federal-State Joint Board on Universal Service; Lifeline and Link Up*, WC Docket Nos. 11-42, 03-109, CC Docket No. 96-45, Notice of Proposed Rulemaking, FCC 11-32 (rel. Mar. 3, 2011).

⁸¹ See, e.g., *High-Cost Universal Service Support, Federal-State Joint Board on Universal Service, Joint Petition of the Wyoming Public Service Commission and the Wyoming Office of Consumer Advocate for Supplemental Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Local Exchange Carrier*, WC Docket No. 05-337, CC Docket No. 96-45, Order on Remand and Memorandum Opinion and Order, 25 FCC Rcd 4072, (2010) (*Qwest II Remand Order and MO&O*); *Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45, 97-160, Fifth Report and Order, 13 FCC Rcd 21325-26, para. 5 (1998) (*Fifth Report and Order*).

⁸² The term "non-rural carriers" refers to incumbent local exchange carriers that do not meet the statutory definition of a rural telephone company. See 47 U.S.C. § 153(37). Under section 153(37), rural telephone companies are defined as incumbent carriers that either serve study areas with fewer than 100,000 access lines or meet one of three alternative criteria. *Id.*

⁸³ See *Qwest II Remand Order and MO&O*, 25 FCC Rcd at 4075, para. 7. See also *Fifth Report and Order*, 13 FCC Rcd at 21324, para. 2.

⁸⁴ See *Connect America Fund, A National Broadband Plan for Our Future, Establishing Just and Reasonable Rates for Local Exchange Carriers, High-Cost Universal Service Support, Developing a Unified Intercarrier Compensation Regime, Federal-State Joint Board on Universal Service, Lifeline and Link Up*, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket Nos. 07-135, 05-337, CC Docket Nos. 01-92, 96-45, WC Docket No. 03-109, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, FCC 11-13 (rel. Feb. 9, 2011).

carriers seeking ETC designation for the sole purpose of participating in the low-income program, for example, should the ETC designation make clear that a carrier is authorized to provide Lifeline and/or Link Up on Tribal lands? If so, should the ETC designation specifically identify the Tribal land(s) included in the designation? In cases in which the ETC designation is silent with respect to the inclusion of Tribal lands, should there be a presumption that a carrier is not authorized to receive universal service support for serving low-income consumers living on those lands?

29. For carriers seeking ETC designation for the purpose of participating in both the high-cost and the low-income programs, we seek comment on whether the ETC designation process should be the same or different than the process for carriers seeking only to participate in the low-income program. That is, does the fact that the current high-cost program provides support to carriers based either on their individual costs or costs generated from the Commission's model, rather than support for individual discounts to consumers, weigh in favor of more specific ETC designations on Tribal lands? We also seek comment on whether any such requirements, whether for ETC designations for the purpose of participating in the high-cost and low-income programs, or alternatively for the purpose of participating in the low-income program alone, should apply to ETC designations conducted by both the Commission and the states.

30. Second, we seek comment on whether additional requirements should be imposed on carriers seeking ETC designation on Tribal lands. For example, is it sufficient for carriers seeking designation, either from the Commission or the state, to file a proposed plan to serve with the Native Nation government upon filing an ETC petition, as recommended in the National Broadband Plan? Should carriers also be required to engage with the Native Nation in advance of any such filing?⁸⁵ What should be included in any plan to serve filed by the carriers with the Native Nation, the Commission, and/or the state? We ask commenters to be as specific as possible in providing details about a proposed process.

31. Third, we seek comment on the nature of consultation with Native Nation governments that should be included in the ETC designation process. The National Broadband Plan recommends that they have an "integral role" in the ETC designation process. What should be the nature of that role? We seek comment on the specific elements of the designation that should be included in the consultation with Native Nations. For example, what aspects of the jurisdictional analysis, service offering and advertising of supported services, public interest analysis, designated service area, and regulatory oversight requirements should be included in this consultation process?⁸⁶

32. Fourth, with respect to ETC designations for the sole purpose of participating in the low-income program, we seek comment on whether varying amounts of Lifeline support could be available on Tribal lands. That is, as detailed above, Tier Four Lifeline support provides up to an additional \$25 per month to reduce the cost of telephone service for eligible low-income consumers living on Tribal lands. We seek comment on whether there are situations in which Tier Four support should not be available on Tribal lands. For example, are there carriers that should not be permitted to collect Tier Four support if they serve eligible low-income consumers on Tribal lands? Should ETC designations be specific with regard to which tiers of Lifeline support are available, and should there be a requirement that such designations specifically state whether the carrier will be permitted to collect Tier Four support?

⁸⁵ See NTTA Comments at 24.

⁸⁶ See Section K of this NOI for a further discussion of the consultation process.

G. Public Safety and Homeland Security

1. Background

33. Our commitment to ensure that residents of Tribal lands have access to modern telecommunications services and share in the benefit of the broadband revolution extends to the area of public safety and emergency communications. For example, in our ongoing public safety proceedings relating to such issues as public safety broadband interoperability and Next Generation 911 service, we have recognized the importance of ensuring that Native communities are included in and benefit from these initiatives.⁸⁷ Nevertheless, we have not previously examined the full range of public safety communications issues from the Native Nation perspective. Accordingly, in this *NOI*, we initiate a comprehensive examination of how public safety and emergency communications are provided to residents of Tribal lands and solicit comment on how the Commission can assist, to ensure that Native communities have access to ubiquitous, effective, and high-quality emergency communications services. We recognize that, as with other communications services, effective and efficient deployment of public safety and emergency communications should be “Tribal-centric” to the fullest extent possible in order to address the specific circumstances of each Native Nation. In addition, deploying public safety and emergency communications to serve Tribal lands raises complex issues because of the need for coordination and interoperability with a number of federal, state, local, and Tribal government agencies.

34. Native Nations face unique challenges in obtaining effective, or in some cases, even minimal delivery of public safety and emergency communications services. One contributing factor to these challenges appears to be the lack of a coordinated approach to Native public safety communications at any level of government. Instead, the current provision of public safety communications on Tribal lands involves a complicated array of government agencies with overlapping responsibility for different public safety communications functions that also may vary depending on the particular Native Nation in question. For example, law enforcement-related communications for many Native Nations are provided by the United States Department of Interior (DOI) – either through BIA or under the auspices of the Assistant Secretary for Indian Affairs.⁸⁸ For these purposes, BIA operates a land mobile radio system covering a substantial portion of Tribal lands, which are largely the same areas where BIA provides Native law enforcement services. Other Native Nations, however, provision their own law enforcement radio systems under licenses issued by the Commission, or are covered by state or local law enforcement

⁸⁷ For example, in our May 2010 order granting waivers for early deployment of 700 MHz public safety broadband networks, we required waiver recipients to be capable of supporting roaming by future regional, state, Tribal, and local public safety broadband systems. *Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks*, PS Docket 06-229, Order, 25 FCC Rcd 5145, 5160, para. 45 (2010). More recently, we noted the possibility of tribal broadband networks participating in a network-of-networks architecture in the 700 MHz public safety broadband spectrum, and sought comment on how to foster interconnectivity and interoperability among such networks. *See generally Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, WT Docket No. 06-150, PS Docket No. 06-229, Third Report and Order and Fourth Notice of Proposed Rulemaking, 26 FCC Rcd 733, 741-745, paras. 18-42 (2011) (*Public Safety Broadband Interoperability Order/FNPRM*). Similarly, in our recent Notice of Inquiry on Next Generation 911 services, we sought comment on the proper role of Tribal governments as well as other federal, state, and local governments in developing NG911 elements and facilitating the transition to NG911. *Framework for Next Generation 911 Deployment*, PS Docket No. 10-255, Notice of Inquiry, 25 FCC Rcd 17869, 17881, para. 30 (2010).

⁸⁸ Communications systems are administered through the BIA Office of the Chief Information Officer. *See* <http://www.bia.gov/WhoWeAre/AS-IA/OCIO/index.htm> (last visited Feb. 9, 2011).

systems.⁸⁹ Moreover, even in those areas where BIA provides land mobile service to Native Nations, it typically does not assume responsibility for their 911 services. Finally, in the recently enacted Tribal Law and Order Act of 2010, the Office of Justice Services in the Department of Justice was tasked with responsibility for “the development and provision of dispatch and emergency and E-911 services” in Indian country.⁹⁰

35. Fire and emergency medical response communications on Tribal lands involve a different set of agencies and systems that are separate from law enforcement. With respect to fire response, the National Interagency Fire Center (NIFC) coordinates federal wildfire-fighting efforts on Tribal as well as non-Tribal forest lands.⁹¹ However, this coordinated federal fire-fighting program does not cover response to residential fires on Tribal lands. Yet another federal agency, the United States Department of Health and Human Services, through its Indian Health Service (IHS), handles medical response on Tribal lands, including ambulance services.⁹²

36. One of the greatest challenges for public safety radio systems throughout the United States is interoperability. In the context of public safety radio systems, interoperability refers to the ability of public safety personnel from different agencies to use their radio systems to communicate and coordinate with one another in response to a common emergency. Interoperability may occur among responders within a common jurisdiction (for example, communication between police and fire radio systems), or it may occur when responders from different jurisdictions or geographic areas converge to respond to a major emergency or disaster.⁹³ Interoperability can be achieved through use of technically compatible radio equipment using the same air interface on common radio frequency bands. Systems that do not have technically compatible radios may also achieve a level of interoperability through the use of “bridges,” “gateways,” or similar network connections. In addition to the technical design component, achieving interoperability requires adequate funding, advance coordination and planning among public safety agencies, and frequent training of personnel in the use of interoperable systems.

2. Discussion

37. Because of the diverse and overlapping ways in which public safety and emergency communications are provisioned on Tribal lands, we seek to understand more about the current status of

⁸⁹ The Commission has granted approximately 475 licenses to Tribes for public safety activities (Universal Licensing System database accessed January 13, 2011).

⁹⁰ Tribal Law and Order Act of 2010, P.L. 111–211, § 211(b)(2), *codified at* 28 U.S.C.A § 2802(c)(10).

⁹¹ The NIFC is a joint operation with the Department of Interior, including the National Park Service, the Bureau of Land Management, the Bureau of Indian Affairs, and other agencies of the Department of Interior having firefighting responsibilities for public lands.

⁹² IHS provides primary health care for Indians and Alaska natives throughout the United States. *See* 42 C.F.R. § 136.

⁹³ Part 90 of the Commission’s rules defines interoperability as “an essential communication link within public safety and public service wireless communications systems which permits units from two or more different entities to interact with one another and to exchange information according to a prescribed method in order to achieve predictable results.” 47 C.F.R. § 90.7. However, in the 700 MHz public safety broadband proceeding, we have recently proposed to redefine interoperability more broadly as the ability of public safety agencies to talk to one another via radio communications systems – to exchange voice and/or data with one another on demand, in real time, when needed and when authorized. *Public Safety Broadband Interoperability Order/FNPRM*, 26 FCC Rcd at 740, para 16. For purposes of this *NOI*, we encourage commenters to consider both the existing and the proposed definition of interoperability in their comments on Native Nations interoperability issues.

these services. We seek information on the degree to which Native Nations receive adequate public safety communications services, and whether the provision of these services falls under the jurisdiction of federal agencies, state or local authorities, or Native Nation authorities. We also seek to examine how public safety communications infrastructure and equipment are funded, acquired, and maintained, to ensure that our actions and assistance do not impede and help where possible, to improve the range and quality of services. What obstacles or challenges do individual Native Nations face to full deployment of public safety and emergency communications, whether jurisdictional, financial, geographic, cultural, or otherwise? We seek information about all areas of emergency response, including law enforcement, fire fighting, and medical response services. We also seek details regarding challenges encountered with respect to coverage, interference, availability of spectrum, and funding.

38. *Status of current and planned public safety and emergency communications on Tribal lands.* We seek comment on a series of questions regarding the status of public safety and emergency communications on Tribal lands. For example, what entities are currently involved in provisioning public safety and emergency communications to the residents of particular Tribal lands? To what extent are Native Nation governments authorized and able to self-provision in this regard? Are public safety communications services provided on a regional or more localized level? How do residents of specific Tribal lands communicate with police, fire, emergency medical, and other emergency response agencies? While there appear to be several agencies involved in providing overall emergency response, are there situations where requests for police, fire, emergency medical, ambulance, and other services are directed to and dispatched from one central location? What benefits and/or challenges arise from these circumstances and what, if anything, can the Commission do to improve emergency communications? To what extent are Native Nation public safety and emergency communications IP-based?

39. *Use of spectrum.* We seek comment on the use of spectrum in providing public safety and emergency services on Tribal lands. For example, what frequency bands (including both FCC-licensed bands and bands allocated for federal use) are used to provide Native Nation public safety and emergency services? To what degree do systems that provide service on Tribal lands operate on different bands? Are there particular bands that provide more effective communications based on terrain, building penetration, or other factors or that align more effectively with the propagation characteristics desired by specific users? Have the public safety agencies of Native Nations encountered interference challenges from other radio systems or within their own operations? Would broader access to public safety spectrum assist Native Nations in providing modern communications to support emergency response services? What needs for public safety broadband communications have been identified for Native Nations? To what extent, if any, are those needs currently being met?

40. Further, do particular Native Nation governmental agencies make more effective use of spectrum than others and, if so, how? Is there a lack of spectrum availability and, if so, what challenges are presented? Would Native Nation participation in the 700 MHz and 800 MHz regional public safety planning process,⁹⁴ as well as broader access to other public safety frequencies, provide meaningful assistance? If so, what processes and procedures would be necessary to assure fairness among competing spectrum users?

41. *Interoperability.* We seek comment on the extent to which public safety communications systems serving Tribal lands are interoperable, both with other systems operating within the same Native Nation area and with other Native or non-Native systems operating in neighboring areas. What level of

⁹⁴ See <http://www.fcc.gov/pshs/public-safety-spectrum/700-MHz/regional-planning.html>; <http://publicsafety.fcc.gov/pshs/public-safety-spectrum/800-MHz/regional-planning.htm> for information on Public Safety Regional Planning Committees.

interoperability exists among Native Nation governmental agencies providing emergency response? Do mutual aid relationships exist with neighboring state, local, or separate Native Nation jurisdictions? To the extent that such relationships exist, does the existing communications infrastructure support their effective implementation? Is interoperability affected by variation in the performance capabilities of neighboring systems? If interoperability is not effectively supported, how, if at all, do the various agencies communicate during an incident? Does the lack of interoperability hinder response to emergencies on Tribal lands or affecting Native Nations? Are there particular governance structures or coordination models that could improve interoperability? How should federal and state agencies with responsibility for interoperability coordinate with Native Nation governments, and how should such coordination efforts be structured to ensure that Native Nation sovereignty and self-determination are respected? Are there particular interoperability challenges in Tribal lands located in international border areas?

42. *911 and E911 service.* We seek comment on the availability and quality of 911 service on Tribal lands. The Commission is aware of the fact that many public safety answering points (PSAPs) serving Tribal lands are not yet capable of receiving Enhanced 911 (E911) service. For example, in the State of New Mexico, all PSAPs are capable of receiving Phase II E911 service except the PSAPs serving the Navajo Nation and the Jicarilla Apache Nation. What are the challenges in receiving and dispatching response to 911 calls on Tribal lands? Are there any trends – such as consolidating public safety answering points (PSAPs) or implementing particular technologies – that have proven or should prove effective to improve emergency response? What is the impact on 911 location capability on the fact that residences on many Tribal lands lack traditional street addresses? What steps have been or should be taken to enable addressing of Native Nation residences for 911 location purposes? What is the extent of wireless E911 capability on Tribal lands? Do wireless calls to 911 provide Phase I caller identification information?⁹⁵ What is the extent of Phase II caller location?⁹⁶ To what degree do existing state 911 funding mechanisms, including collection of fees from wireline and wireless telephone subscribers, support, or fail to support provision of 911 on Tribal lands?

43. *Emergency alerting and communications restoration.* We seek information regarding emergency alerting and communications restoration on Tribal lands. Do Native Nations have the ability to transmit emergency alerts and information to residents of their lands? Do Native Nations or other providers use the Emergency Alerting System (EAS)?⁹⁷ Specifically, what is the level of Native Nation access to the EAS, and should it be expanded? Have Native Nations' needs been taken into account in the planning for new alerting platforms, such as Commercial Mobile Alerting Service (CMAS) or the Integrated Public Alert and Warning System (IPAWS) being developed by Federal Emergency Management Agency (FEMA)? To what extent do Native Nations coordinate with communications service providers, state, local, and federal government agencies in cases of disaster response? Do

⁹⁵ Section 20.18(d)(1) of the Commission's rules requires licensees to provide the telephone number of the originator of a 911 call and the location of the cell site or base station receiving a 911 call for any mobile handset accessing their systems to the designated Public Safety Answering Point (PSAP) through the use of Automatic Number Identification (ANI) or Pseudo-ANI. 47 C.F.R. § 20.18(d)(1)

⁹⁶ Section 20.18(e) of the Commission's rules requires licensees to provide to the designated PSAP the location of all 911 calls by longitude and latitude in conformance with accuracy requirements listed in Section 20.18(h). 47 C.F.R. § 20.18(e).

⁹⁷ Section 11.11 of the Commission's rules provides the President, or heads of state and local government, with the capability to provide immediate communications and information to the general public at the national, state, or local area levels during periods of national emergency. The rules apply to AM, FM, and TV broadcast stations, cable systems, and other participating entities. 47 C.F.R. § 11.11.

providers participate in the Commission's Disaster Information Reporting System (DIRS)?⁹⁸

44. *Emergency preparedness and response.* We seek comment on the status of emergency preparedness and response on Tribal lands. For example, what is the level of emergency preparedness and planning with respect to Tribal lands? Do any disaster planning or emergency communications plans exist? Has any program been established for rapid provision of deployable equipment (e.g., deployable cell sites, mobile equipment caches) to Tribal lands in the event of a major disaster or emergency affecting Native Nations, particularly those in remote areas? Are there ways in which the Commission could assist in this area?

45. *Funding.* We recognize that the Native Nations public safety and emergency communications objectives discussed here rely on adequate funding. How are public safety communications in Native Nations currently funded? What are the potential funding sources for capital projects and operational maintenance for Native Nation public safety communications?⁹⁹ Are these funding sources adequately tailored to Native Nation needs, and if not, what gaps or deficiencies exist? Are there models available that present reliable estimates as to how much funding would be required to achieve quality, ubiquitous emergency communications for Native Nations?¹⁰⁰ Are Native Nations able to participate in federal programs that fund public safety communications and, specifically, interoperability (for example, through Public Safety Interoperable Communications (PSIC) or other federal grant programs)? If not, what have been the obstacles to such participation?

H. Cultural Preservation and Section 106 of the National Historic Preservation Act

1. Background

46. The Commission must consider the effects of construction of communications facilities by or for the use of the Commission's licensees under federal environmental statutes, including the National Environmental Policy Act (NEPA),¹⁰¹ the Endangered Species Act (ESA),¹⁰² and the National Historic Preservation Act (NHPA).¹⁰³ The Commission complies with these statutes by, among other things, requiring licensees and applicants to complete a review process under our environmental rules

⁹⁸ See <http://www.fcc.gov/pshs/services/cip/dirs/dirs.html>. DIRS is a voluntary, web-based system that communications companies, including wireless, wireline, broadcast, and cable providers, can use to report communications infrastructure status and situational awareness information during times of crisis.

⁹⁹ For example, the Tribal Law and Order Act of 2010 expanded the ability of Tribes to obtain grant funding under the Community Oriented Policing Services (COPS) program, including funding "to develop new technologies, including interoperable communications technologies." P.L. 111-211, § 243, *codified at* 42 U.S.C.A. § 3796dd(b)(8). The Tribal Homeland Security Grant Program was authorized in the Implementing Recommendations of 9/11 Commission Act of 2007, which states that funds may be used for "ensuring operability and achieving interoperability of emergency communications." P.L. 110-53, *codified at* 6 U.S.C.A. §606, §609(a)(5).

¹⁰⁰ For example, we are aware of the significant work that BIA has undertaken to quantify the costs associated with provision of basic broadband services and NG911 to Tribal lands and seek to have those estimates entered in the record of this proceeding.

¹⁰¹ 42 U.S.C. § 4321 *et seq.*

¹⁰² 16 U.S.C. § 1531 *et seq.*

¹⁰³ 16 U.S.C. § 470 *et seq.*; see *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process*, WT Docket No. 03-128, Report and Order, 20 FCC Rcd 1073, 1082-84, paras. 24-28 (2004) (*NPA Report and Order*), *aff'd sub nom. CTIA – The Wireless Association v. FCC*, 466 F.3d 105 (D.C. Cir. 2006) (explaining that treatment of tower construction as a "federal undertaking" under the NHPA reflects a permissible interpretation of the Commission's statutory authority over licensing and antenna structure registration).

prior to constructing such facilities.¹⁰⁴ These construction projects include communications towers used for commercial mobile radio, broadcast, public safety, and other licensed services. While all of these environmental statutes include provisions for Native Nation consultation and involvement, Native Nations and Native Hawaiian Organizations (NHOs) are most deeply and frequently involved in our review process under Section 106 of the NHPA.¹⁰⁵ A significant concern of Native Nations is the potential effect of tower sitings on their traditional cultural properties or “sacred sites.” The NHPA specifically protects historic properties of traditional religious and cultural importance to Native Nations and NHOs and requires federal agencies to consult with Native Nations and NHOs that attach religious and cultural importance to such properties.¹⁰⁶

47. Our process for involving Native Nations and NHOs in Section 106 review includes three major components. First, the Nationwide Programmatic Agreement (NPA) signed by the Commission, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers in 2004 outline specific procedures that our licensees and applicants must follow to notify Native Nations and NHOs of the proposed construction of communications facilities and invite their participation in review.¹⁰⁷ In particular, the NPA requires licensees and applicants to identify Native Nations and NHOs that may attach religious and cultural significance to historic properties that may be affected by a proposed undertaking within their ancestral, aboriginal, or ceded lands and to notify these Native Nations and NHOs early in the Section 106 process.¹⁰⁸ The NPA procedures do not constitute or substitute for government-to-government consultation with federally recognized Native Nations but, with the Native Nation’s consent, are intended to streamline the process and eliminate the need for government-to-government consultation, where possible.¹⁰⁹

48. Second, to assist our licensees and applicants in complying with the NPA, we created the Tower Construction Notification System (TCNS).¹¹⁰ This secure electronic system allows Native Nations and NHOs to specify geographic preferences for notification, as well as other informational and procedural preferences; automatically notifies Native Nations and NHOs when a proposed construction is entered into the TCNS within their area of preference; and provides a means for Native Nations and NHOs to respond electronically to notifications.

49. Third, the Commission has entered into a Best Practices agreement with the United South and Eastern Tribes (USET) that provides additional guidelines for communications between our licensees and applicants and USET’s member Native Nations.¹¹¹ Paragraph IV.J of the NPA states that the

¹⁰⁴ 47 C.F.R. §§ 1.1301-1.1319.

¹⁰⁵ 16 U.S.C. § 470f.

¹⁰⁶ See 16 U.S.C. § 470a(d)(6)(A), (B).

¹⁰⁷ 47 C.F.R. Part 1, App. C, Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process, § IV.

¹⁰⁸ *Id.*, §§ IV.B, IV.C. The NPA does not apply on Tribal lands unless a Native Nation has signed the NPA. *Id.*, § I.D.

¹⁰⁹ *Id.*, § IV.G; see *NPA Report and Order*, 20 FCC Rcd at 1108-10. paras. 96-100.

¹¹⁰ See http://wireless.fcc.gov/outreach/index.htm?job=tower_notification.

¹¹¹ Voluntary Best Practices for Expediting the Process of Communications Tower and Antenna Siting Review pursuant to Section 106 of the National Historic Preservation Act (adopted Oct. 25, 2004). USET is a non-profit inter-Tribal government organization comprised of 25 federally recognized Native Nations from Maine to Florida to Texas.

Commission will use its best efforts to develop similar agreements with other Native Nations and NHOs.¹¹²

2. Discussion

50. We seek comment on the effectiveness of our processes for involving Native Nations and NHOs in Section 106 review and on how those processes can be improved. For example, the NPA requires that licensees and applicants work with Native Nations and NHOs to identify historic properties of religious and cultural significance to them within the Area of Potential Effects (APE).¹¹³ In order to facilitate this identification, our applicants use the TCNS to provide certain basic information about their proposed constructions. The TCNS permits Native Nations and NHOs to request additional information either for all proposed projects or on a case-by-case basis. Has this process been successful in getting Native Nations and NHOs the information they need in a manner that is efficient both for Native Nations and NHOs and for our licensees and applicants? Does the process of identifying, evaluating, and assessing effects on historic properties with cultural and religious significance to Native Nations and NHOs, including historic properties that are cultural landscapes, generally proceed in a collaborative manner? Are there actions we could take to facilitate further collaboration? Are there changes that would make the TCNS system more useful either to Native Nations and NHOs or to applicants?

51. We note also that some reviews involve constructed communications facilities that were not submitted for Section 106 review at the time of construction, and we seek comment on the processes for involving Native Nations and NHOs in these reviews. In addition, we invite comment on the effectiveness of the NPA's provisions for handling confidential and sensitive information, and on the success of parties' efforts to resolve any issues regarding such information.¹¹⁴

52. We also seek comment on the experiences of the USET Tribes, licensees, and applicants under the USET Best Practices. Have these Best Practices been successful? What provisions have been most valuable, and where have they fallen short? Building on this experience, we seek comment on how we might best pursue similar agreements with groups of Native Nations or NHOs in other regions of the country. Over the years, our staff has regularly interacted with Native Nation historic preservation and cultural resource personnel both at meetings of the National Association of Tribal Historic Preservation Officers and at regional gatherings, and we have been approached by Native Nations in different regions about entering into Memoranda of Understanding or consultation protocol agreements. We seek comment both on how to initiate and structure consultations regarding such agreements and on what provisions might be most valuable. For example, would it be helpful to establish guidelines regarding what information might appropriately be expected for particular types of projects? Are there classes of construction that are unlikely to affect historic properties of traditional religious and cultural significance to Native Nations or NHOs, and for which expedited review might benefit Native Nations and NHOs as well as licensees and applicants?¹¹⁵ Are there other voluntary measures that might improve the efficiency

¹¹² NPA, § IV.J.

¹¹³ *Id.*, § VI.D.1.b. This requirement is an exception to the general rule that applicants need identify only historic properties that have been listed on the National Register of Historic Places or determined to be eligible for listing in certain public sources. *Id.*, § VI.D.1.a. The requirement recognizes that for both religious and preservation reasons, Native Nations and NHOs often prefer that their historic properties not be publicly identified.

¹¹⁴ See NPA, § IV.I.

¹¹⁵ For example, some Native Nations and NHOs may be unlikely to have an interest in those collocations that are required to complete Section 106 review under the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas, 47 C.F.R. Part 1, App. B.

of Native Nation or NHO review? Could Native Nations agree on cooperative practices that might reduce duplication in their reviews? We further invite comment on whether our consultation with USET should be reopened to address these questions.

53. In addition to improvements to the process, we also seek comment on how we can educate parties better to use our existing process. The Commission staff regularly provides training on the Section 106 process to participants representing all interests, including presentations at meetings of State and Tribal Historic Preservation Officers. Most of these training opportunities have taken the form of general overviews of our rules and our electronic systems. We invite comment on appropriate venues and formats to provide additional education to Native Nations and NHOs and on what topics would most benefit them. We also welcome suggestions as to any training that we should provide to our applicants and their consultants regarding their interactions with Native Nations and NHOs through our Section 106 process.

54. In this regard, we also seek comment on whether Native Nations and NHOs may be able better to leverage our existing processes outside of the TCNS to improve the quality and efficiency of their participation in Section 106 review. For example, Tribal adoption of the NPA might benefit Native Nations by applying the NPA's processes and presumptions to communications projects on Tribal land.¹¹⁶ We seek comment on the benefits and disadvantages of Native Nation adoption of the NPA and on what measures may be appropriate to encourage Native Nations to consider this option. In addition, the Commission has developed an electronic E106 System that, on a voluntary basis, enables online delivery of Section 106 forms and communications among parties to the Section 106 review.¹¹⁷ Although Native Nations and NHOs may access the E106 System to review documentation for proposed undertakings where they are participating in the review, few Native Nations and NHOs have availed themselves of this option. We invite comments as to whether this opportunity is valuable to Native Nations and NHOs and suggestions as to how we might improve their ability to use the E106 System.

55. Finally, we seek comment on the considerations that should govern our handling of requests from other Federal agencies for access to the TCNS. These requests have involved both communications projects and projects that are unrelated to communications, and have ranged from requests for information contained in the TCNS database to requests to use the TCNS as part of the agency's own Section 106 process. In September 2009, following an outreach program to Native Nations and NHOs, we granted the Department of Agriculture's Rural Utilities Service (RUS) and the Department of Commerce's NTIA limited access to the TCNS so that their headquarters staff could enter information on broadband and telecommunications grant awards under the Recovery Act, but we did not grant them access to the geographic-preferences database. While we see benefits to making the improved accuracy and efficiency of the TCNS available to other Federal agencies with Section 106 responsibilities, we are also committed to protecting the security of Native Nations' and NHOs' proprietary information and to ensuring that Native Nations and NHOs are comfortable with any expanded use of the TCNS. We therefore request comment on what factors we should consider and what processes we should follow in deciding whether to grant requests for access to the TCNS to other federal agencies.¹¹⁸ Should these

¹¹⁶ See NPA, § I.D (providing for individual Native Nations to adopt the provisions of the NPA). For example, the NPA establishes presumptive Areas of Potential Effects for visual effects depending on the height of the tower, and it establishes procedures for submitting a standard Submission Packet to the State or Tribal Historic Preservation Officer. *Id.*, §§ VI.B.4, VII.A.

¹¹⁷ See http://wireless.fcc.gov/outreach/index.htm?job=tower_notification.

¹¹⁸ We note that any grant of such requests will also be subject to technical, budgetary, and resource constraints, as well as the ability of the requesting agency to bear any associated costs.

factors and processes vary depending on the nature of the request – for example, whether the agency requests access to the Native Nations’ and NHOs’ geographic preference information and whether non-Federal entities will have access to the system? What outreach should the requesting agency undertake before obtaining access?

I. Satellite-Based Services

1. Background

56. Satellite technology provides telecommunications service throughout the country, and can be particularly important for serving remote, unserved, and underserved communities nationwide, including those on Tribal lands. Because satellites orbit far above the Earth, their footprint or service area covers nearly every part of the United States, providing instant, ubiquitous, and reliable coverage.¹¹⁹ To aid comment in this proceeding, we provide an overview of (a) commercial satellite data, voice, video, and audio services; (b) current satellite service business models; and (c) the Commission’s regulatory role in satellite service.

57. Commercial Fixed-Satellite Services (FSS) services became widely available in the 1970s in the “C-band” frequencies (4/6 GHz).¹²⁰ This first generation of satellite services was focused primarily on large, fixed applications, such as delivery of video content to cable distribution points (“cable head ends”) and direct-to-home one-way video services using large 3-meter diameter dish antennas to communicate with satellites in geostationary satellite orbit (GSO).¹²¹ In the late 1970s, commercial satellites began to utilize the higher “Ku-band” frequencies (12/14 GHz).¹²² Because frequency is inversely related to wavelength,¹²³ the use of higher frequencies makes smaller “dish” subscriber antennas possible, while still providing data rates comparable to those of bigger antennas at lower frequencies.¹²⁴ Smaller antennas led to a variety of new consumer services including one-way satellite television and two-way very small aperture terminal (VSAT) networks with antenna sizes of about 0.7 to 1.5 meters. Smaller dish size has also fostered innovative two-way services involving

¹¹⁹ Satellite infrastructure also imposes some limitations. Satellites require long construction lead times and involve considerable costs.

¹²⁰ *Establishment of Domestic Communication-Satellite Facilities by Nongovernmental Entities*, Docket No. 16495, Report and Order, 22 FCC 2d 86 (1970). Commercial satellite services are generally provided at frequencies above one gigahertz (GHz).

¹²¹ The geostationary satellite orbit is a circular orbit along the plane of the Earth’s equator at an altitude of 35,786 kilometers, at which a spacecraft can be maintained at a constant longitudinal position relative to the Earth. Thus, the satellite appears fixed in the sky above the Earth. This allows GSO satellites to be linked permanently to locations on Earth, and has led to GSO satellites being used for the majority of satellite video, audio, voice, and data services. All other orbits are classified as non-geostationary satellite orbits (NGSO). Because NGSO satellites do not remain at a constant position relative to the Earth, NGSO systems generally require a constellation of multiple satellites in order to provide nationwide or global coverage.

¹²² See *Satellite Business Systems*, Memorandum Opinion, Order, Authorization and Certification, 62 FCC 2d 997, 1084, para. 252 (1977).

¹²³ The wavelength, λ , of a radio signal is the speed of light (300,000 km/s), C , divided by frequency, f (or, $\lambda = C/f$).

¹²⁴ Satellite services often use directional, high-gain parabolic dish antennas to provide the necessary signal strength between the satellite and the end user. Parabolic dish antennas must be several wavelengths in diameter in order to focus radiofrequency energy effectively. Thus, the shorter the wavelength, the smaller the dish diameter may be without loss of efficacy.

transportable fixed dishes¹²⁵ as well as mobile applications on vehicles, aircraft, and vessels.¹²⁶ In the last decade, commercial satellite operations at higher frequencies in the “Ka-band” (18/29 GHz)¹²⁷ have allowed dish size to be reduced to smaller than one meter.¹²⁸

58. In the late 1980s, the Commission authorized the first commercial Mobile-Satellite Service (MSS) satellite systems.¹²⁹ MSS satellites operate with earth stations that are authorized to transmit and receive while moving. In the 1990s, the Commission adopted rules for additional MSS systems.¹³⁰ MSS is provided at frequencies lower than those used for FSS.¹³¹ Some MSS networks use

¹²⁵ Some of these FSS earth stations are no larger than a suitcase and are used to provide high-speed services including Internet services. See, e.g., AVL Technologies, Application to Modify Blanket Earth Station License to Add 50 Each of 0.75, 0.96 and 1.0 meter Ku-Band Antennas, Order and Authorization, 19 FCC Rcd. 22,086 (2004) (0.75, 0.96 and 1.0 meter transportable temporary-fixed earth station antennas); SWE-DISH Satellite Communications, Inc., Application for Authority to Operate a Single Temporary-Fixed Earth Station in the Ku-Band Fixed-Satellite Service, Order and Authorization, 19 FCC Rcd. 16,314 (2004) (0.90 x 0.66 meter transportable temporary-fixed).

¹²⁶ The Commission has adopted technical rules to facilitate the use of earth stations fixed to mobile platforms communicating with GSO FSS satellites. See, e.g., *Procedures to Govern the Use of Satellite Earth Stations on Board Vessels in the 5925-6425 MHz/3700-4200 MHz Bands and 14.0-14.5 GHz/11.7-12.2 GHz Bands*, IB Docket No. 02-10, Report and Order, 20 FCC Rcd 674 (2005); *Amendment of Parts 2 and 25 of the Commission's Rules to Allocate Spectrum and Adopt Service Rules and Procedures to Govern the Use of Vehicle-Mounted Earth Stations in Certain Frequency Bands Allocated to the Fixed-Satellite Service*, IB Docket No. 07-101, Report and Order, 24 FCC Rcd 10414 (2009). The Commission has also granted waivers or authorizations allowing mobile earth stations aboard aircraft to communicate with GSO FSS satellites. See, e.g., *ViaSat, Inc. Application for Blanket Authority for Operation of 1,000 Technically Identical Ku-Band Aircraft Earth Stations in the United States and Over Territorial Waters*, Order and Authorization, 22 FCC Rcd 19964 (Int'l Bur. and OET 2007).

¹²⁷ *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172, Report and Order, 15 FCC Rcd 13430 (2000). The Commission has also allocated spectrum above 30 GHz for use for commercial satellite services, in the “V-band.” *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands*, IB Docket No. 97-95, Second Report and Order, 18 FCC Rcd 25428 (2003). To date, there are no commercial satellite operations in this band.

¹²⁸ See e.g., http://www.wildblue.com/aboutWildblue/how_it_works_demo.jsp; and <http://www.starband.com/how-satellite-Internet-works/> (24” tall x 36” wide dish).

¹²⁹ *Amendment of Parts 2, 22, and 25 of the Commission's Rules to Allocate Spectrum for and to Establish Other Rules and Policies Pertaining to the Mobile Satellite Service for the Provision of Various Common Carrier Services*, Gen. Docket No. 84-234, Second Report and Order, 2 FCC Rcd 485 (1987).

¹³⁰ See *Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to Non-Voice, Non-Geostationary Mobile-Satellite Service*, CC Docket No. 92-76, Report and Order, 8 FCC Rcd 8450 (1993); *Amendment of the Commission's Rules to Establish Rules and Policies Pertain to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands*, CC Docket No. 92-166, Report and Order, 9 FCC Rcd 5936 (1994); *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2GHz for use by the Mobile Satellite Service*, ET Docket No. 95-18, First Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 7388 (1997); *Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, IB Docket No. 99-81, Report and Order, 15 FCC Rcd 16127 (2000).

¹³¹ Little Low Earth Orbit (Little LEO) MSS operates in the VHF band at 137-138 MHz/148-150.05 MHz/399.9-400.05 MHz/400.15-401 MHz; L-band MSS operates in the 1525-1559/1626.5-1660.5 MHz frequency bands; Big

(continued...)