

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

In the Matter of

Connect America Fund	) WC Docket No. 10-90
ETC Annual Reports & Certifications	) WC Docket No. 14-58
Developing a Unified Intercarrier Compensation Regime	) CC Docket No. 01-92

**Comments – Order on Further Notice of Public Rulemaking,  
adopted March 23, 2016.**

Sacred Wind Communications, Inc. (“SWC”) is a Class C corporation incorporated in the State of New Mexico and operates as a Rural Local Exchange Carrier (“RLEC”) principally on Navajo lands in New Mexico. SWC is the only nontribally owned RLEC in the country wholly dedicated to serving a tribal community, having developed a basic local and broadband infrastructure over a vast unserved tribal area of the West. SWC has a unique relationship with the Navajo Nation, with its Navajo customers, and has won national and local recognition for its approach to serving residents in a challenging geographic area. SWC believes it has a unique perspective as it attempts to address several issues of importance in the discussion of the costs of expanding and preserving broadband service to extremely rural, Tribal areas.

SWC’s rural area

SWC’s service territory is over 3,200 square miles of the 27,000 square mile Navajo Reservation and near-reservation lands. Within SWC’s service territory are located approximately 6,500 Navajo households whose majority had no access to any home-based telephone service prior to 2007. With the exception of a few households located on the fringes of the towns adjacent to tribal lands, broadband was nonexistent in its territory at the time of SWC’s start-up. A number of Navajo government buildings were equally deprived of basic and broadband services and only those local schools near enough to a major roadway had access to copper-fed T-1 level data service. One school in particular, a Bureau of Indian Education-managed dormitory school in which Navajo children were housed during the school week due to their school bus’s inaccessibility to their far flung homes, had no telephone service for their children and no Internet service of any type. Neither had the children’s parents access even to the most basic telephone services in their homes, thus parents and children were incommunicado except on weekends. Mobile telephony was generally available in and around communities along paved state highways and Interstate 40, which cut through Navajo lands in northwest New Mexico, but was between inadequate and absent in much of Navajo lands distant from the highways. The Navajo people still refer to mobile phone service as “*bil nijoobali*“, which means “the device with which you spin around” (looking for a signal). Another term used

for mobile phone is “ná áá’ jáah” (“parceled in small amounts”), referring to prepaid phones or Lifeline phones with minutes of use limits. Mobile telephone service coverage has much improved since 2007 as well, largely due to one regional carrier with much more of a tribal focus than the larger national carriers. A disproportionate number of Navajo households are at or below the national poverty level and over 80 percent of SWC’s customers qualify for the Tribal Lifeline Program. The Navajo population at large is among the highest at risk in the nation for school dropout, teen pregnancy, infant mortality, teen suicide, heart disease and diabetes.

#### Broadband expansion in SWC territory

At the time of SWC’s acquisition of Qwest Corporation’s system on Navajo lands in late 2006, only 42 residential and business customers, less than 2 percent of SWC acquired customer base, living along the municipal boundaries of Gallup and Farmington, NM, had access to DSL services at download rates between 256 Kbps and 512 Kbps. Of those 2,200 acquired customers, all have access today to broadband at speeds of 4 Mbps download, or higher, and some customers have access to 10/1Mbps. All of the more than 1,000 new customers brought onto SWC’s network since 2007 have similar access. Having built a middle and last mile fixed wireless network interfaced with the older copper landlines that it acquired in 2006, and recently reinforced in areas with fiber optic middle mile, SWC has achieved its initial objectives of offering basic and advanced telecommunications services to nearly 90 percent of the tribal homes in its service territory that have electric service.<sup>1</sup> The expansion of SWC’s network was achieved by way of a \$55 Million low interest loan from the USDA-Rural Utilities Service and, of course, with the support from the FCC’s universal service programs. SWC has just received approval for a second USDA-RUS loan to expand and improve its broadband infrastructure over the next three years with which SWC intends to increase broadband availability of no less than 10 Mbps download to 90 percent or more of its customer base.

SWC offers schools and other critical community facilities such as tribal Chapter Houses (local government buildings) and senior centers download speeds of 10 Mbps to 400 Mbps, though tribal budgetary limits commonly impinge on broadband growth to tribal facilities.

Thanks to the FCC’s policies and programs supporting universal service and to the USDA-RUS’s telecommunications and broadband loan and grant programs, SWC has been able to bridge the telecommunications and broadband divide in one of the hardest to serve areas and to extend an equal opportunity of access and information to one of the lowest income communities of our Nation. The FCC’s Universal Service Fund/Connect America Fund (“USF/CAF”) programs have been used successfully, efficiently, and conscientiously by Sacred Wind to achieve the FCC’s goals on Navajo Lands. It is our hope that the FCC will continue its rural assistance programs to support Sacred Wind’s mission in areas where few dare tread, and that it will not be detracted from its own universal service mission by a few bad actors. With this in mind, SWC submits the following comments.

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<sup>1</sup> SWC has used Global Positioning Satellite devices to identify over 1,200 occupied homes in its service territory not connected to the electric power grid.

Comments regarding permitted expenses

SWC agrees with the FCC on its use of emphasizing the terms “used and useful,” “prudent expenditure,” and “necessary for the provision of...”<sup>2</sup> in evaluating whether certain expenditures should be included in the calculation of a carrier’s interstate revenue requirement and for high cost loop support. SWC further agrees with nearly all of the FCC’s proposed list of expenses excluded from recovery in paragraph 340 of its Order and FNPR except for: 1) membership dues in organizations, if such membership includes telecommunications trade organizations, and 2) meals, if that includes employees’ reasonable meal expenses while travelling on company business. In SWC’s experience, its participation in state, regional and national telecommunications organizations, and attendance at some of those organizations’ conferences, have been useful in learning of new technologies, software applications, and management or technical skills that contribute to the provision of quality services to our customers. Active participation in trade associations can be shown to be of direct benefit to its members and customers, whereas the other expenses listed – which can be categorized mostly as either personal or highly discretionary expenses – should not be borne by USF contributors. Also, meal expenses for employees on travel includes, for Sacred Wind, the company’s reimbursement of reasonable meal expenses<sup>3</sup> incurred by the company’s Outside Plant Technicians and other employees when they must spend the evening away from home in the service of our customers. SWC does not believe that the expense categories listed in paragraph 340 are overly broad except for the food and membership fees as explained above. A subset of those expenses should be created, allowing for cost recovery.

Similarly, SWC agrees with the FCC’s list of additional expenses to be prohibited for recovery except for two broadly covered expense categories: Off-road vehicles and dining facilities. Subsets of those two categories should be created to allow for All Terrain Vehicles (“ATV”), Snowcats, and the like, as a reasonable expense to restore or maintain telecommunications equipment that not always is located within “access [to] inhabited portions of the study area ...”<sup>4</sup>. Sacred Wind owns telecommunications towers many miles from what would be considered inhabited portions of our study area due to the strategic vantage point atop mountains and are reachable at certain times of year only by the company’s ATVs or by a rented Snowcat. SWC additionally asks the FCC to allow for recovery of a company’s reasonably sized and outfitted dining area if such term can describe the “breakrooms” that Sacred Wind provides for our employees in our buildings. A breakroom is simply a designated refreshment area to where a SWC employee can leave his/her work station during a break and partake of a brownbag lunch. Two of SWC’s four office or Outside Plant buildings are several miles away from the nearest town, leaving SWC little option but to provide our employees a safe place to eat food from home. The company’s breakrooms can hardly be considered dining rooms,

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<sup>2</sup> Connect America Fund, WC Docket 10-90; ETC Annual Reports, WC Docket 14-58; Developing an Unified Intercarrier Compensation Regime, CC Docket 01-92. Report and Order, Order, and Order on Reconsideration, and Further Notice of Proposed Rulemaking. Released March 30, 2016, FCC 16-33. (“FNPR”). at paragraph 339.

<sup>3</sup> SWC has a meal expense policy with specific dollar limits that all employees must follow.

<sup>4</sup> FNPR paragraph 342.

and certainly are not cafeterias. They are “used and useful,” in terms of providing a safe and comfortable place for employees, in the provision of quality service to our customers.

Comments regarding Tribal support

1. Is there a need for a separate mechanism for calculating operating expense support incurred on Tribal lands?

Yes, rate-of-return (“RoR”) carriers serving Tribal lands, particularly those whose predominant customer base resides on Tribal lands, need to be treated separately from RoR providers who serve metropolitan or other non-tribal rural areas. There are several major differences and expenses that RoR providers on Tribal lands experience that other providers do not. Even beyond the low density characteristics of all rural areas, Tribal lands pose carriers a greater challenge in serving their Tribal membership than found anywhere else in our Nation. Access to Tribal and other federally managed lands for the installation and even replacement of telecommunications facilities is often experienced as a time consuming and expensive quagmire. The necessity of engaging closely with a Tribal government and the community, reinforced by FCC mandate, adds costs to a Tribally-serving provider that few other rural providers encounter. Related to the latter, this engagement necessitates a corporate culture that is distinct and multi-layered, influenced by a Tribal government that demands recognition as sovereign<sup>5</sup>, customers and employees who seek acceptance as different but equal, and a past history of neglect that colors everything a Tribally-serving company does. Poor road conditions, including the paucity of paved or graveled roads, in entire sectors of Tribal lands, cause greater wear and tear on vehicles and add greater per-subscriber labor costs than in most areas of the country. The lack of electric power to many tribal homes<sup>6</sup> effectively decreases the housing density for the telecommunications provider, exacerbating distances travelled for the provider’s technicians and the per-subscriber costs of equipment. SWC also must operate customer payment offices for the large majority of its customers who do not have bank accounts. Though logistically a departure from mailed billing payments and a technological step in reverse from online payments, customers’ visits to SWC’s offices follow a behavior well known on Navajo Lands. SWC’s Navajo customers drive many miles to meet our employees and pay in cash. The low income orientation of SWC’s customer base is also a factor in the higher delinquency of payment rates we encounter (estimated at a payment loss of \$40,000 per year), which the company attempts to avoid by special handling of many accounts, though contributing to higher labor costs than average of retaining customers.

2. Should Tribal-specific support only be provided to those rate-of-return carriers that are serving Tribal lands that report broadband deployment lower than the weighted average, based on Form 477 data?

No, Tribal-specific support by way of an additive to HCLS support and to CAF BLS support should be offered to all RoR carriers that serve Tribal areas where the cost of

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<sup>5</sup> Only one expression of this on Navajo Lands is the Navajo government’s observance of its Navajo Preference in Employment Act that adds to a provider’s Corporate expenses.

<sup>6</sup> See Footnote 1.

providing services exceeds the national average for RoR carriers. Those higher costs common to RoR carriers serving Tribal lands are ongoing – both capital and operating -- and do not disappear when a targeted number of voice or broadband customers are served. Despite the FCC’s CAF I and CAF II programs oriented to infrastructure development, SWC believes that the FCC’s new CAF BLS program should be more oriented to the costs of preserving service, not capital costs. RoR carriers have available to them USDA-RUS loan and grant programs not accessible to the larger price cap carriers. The finite federal universal service support should be used to meet RoR carrier’s revenue requirements. If any support is used as an incentive to build new infrastructure, it should be channeled as increased operating cost support to companies that take the risk to use their own capital, to borrow money, or even seek grant money, to meet the FCC’s broadband targets. The use of CAF BLS support on infrastructure itself should be used to maintain and upgrade components of a carrier’s infrastructure in order to ensure that customers continue to receive broadband speeds and voice services at the levels sought by the FCC.

For example, all of SWC’s fixed wireless antenna equipment, and the electronics within its 48 digital loop carrier cabinets, have a shorter useful life than copper or fiber cable or the telecommunications towers that support them. Much of SWC’s electronic and microwave equipment is declared “manufacturer discontinued” (“MD”) after 5-7 years after manufacture. This means that (especially concerning for a carrier of last resort), if a key component of its network fails and has been MD’d, the manufacturer no longer provides service on that equipment and often does not store replacement parts. For this reason, SWC must keep key replacement parts in inventory and must always plan for upgrades to its equipment.

The other costs of maintaining and operating the network over a vast, unpaved terrain remain the same whether broadband speeds are at 10/1 Mbps or 4/1 Mbps.

3. Would the offer of additional voluntary Tribal-specific support encourage more robust ETC engagement by carriers with Tribal governments on whose lands they provide service?

Yes, if the additional voluntary Tribal-specific support were understood to be the incentive and minimum Tribal engagement performance and reporting requirements were imposed to show evidence of its use for the intended purpose. In order for the FCC to better understand the costs of responsible or effective Tribal engagement, SWC submits the expenses it incurred in 2015 in engaging Navajo leaders. SWC meets on a regular basis with a variety of Navajo officials and office managers, including Chapter leaders, Tribal Council Delegates, the Office of the President/Vice President, the Navajo Land Department, Navajo Resources Committee, Navajo Nation Telecommunications Regulatory Commission, and our own Navajo Community Advisory Council. SWC’s employees concluded eighty-five separate meetings with Tribal government officials during 2015. This is, at a minimum, a 500 hour commitment in travel time and meetings, at a cost of an additional \$40,000 in our budget. (According to a recent survey Sacred Wind’s Corporate Expense for 2014, which includes External Relations Expense, is 91% higher than similar size

companies.<sup>7</sup> Achieving the level of trust that we have with the Navajo communities we serve is something to which we are committed. However, it is an ongoing venture which is costly to the Company in time, employee resources, and vehicle expenses. For example, a roundtrip from SWC's operations headquarters in Yatahey, NM to a Chapter in SWC's northern exchange is 290 miles. From Albuquerque, New Mexico (where SWC's administrative office is located) to Window Rock, Arizona (the seat of the Navajo government) is 380 miles roundtrip, or, approximately, a six hour drive.

In order to distribute information on Lifeline recertification or network improvements, meetings with the Chapter community coordinator of all 22 Chapters in SWC's service territory, and sometimes a public presentation at a regular meeting of Chapter membership, are scheduled over a two to three month period. SWC also has formed a Navajo Community Advisory Council, comprised of five officials of different Chapters, to provide them with network, service, pricing and government policy information and utilize them as a sounding board for our company's planning. Anywhere near such level of engagement might be daunting for a provider less dependent on Tribal customer revenues or less experienced in dealing with Tribal entities beyond providing services to their customer base. We have estimated that employee time and costs for informational materials for these meetings have run at least \$10,000 annually. The FCC should consider an incentive for providers serving Tribal areas to increase their engagement with tribes by either increasing their HCLS support by \$50,000 annually or by increasing the cap by 10 percent on their Corporate and Plant Non-Specific operating costs.

4. Should carriers that serve Tribal lands, in whole or in part, not be subject to the measures to limit operating expenses and the overall budget control mechanism concurrently adopted in the Report and Order?

Carriers that serve Tribal lands can still be subject to operating expense limits and overall budget control mechanisms similar to those adopted in the Report and Order, but those expense control mechanisms should account for the higher costs of operating on sparsely populated, hard to reach, low income Tribal areas. A Tribal Factor, increasing the amount of total operating expense support for tribally serving RoR carriers, should be part of the FCC's final Order. SWC believes that a Tribal Factor of 10%-50% should be extended to RoR carriers, depending on the percentage of the carrier's customer base residing on Tribal lands. If, for example, a carrier's Tribal customers living on Tribal lands represent 10%-24% of the carrier's total customer base, a Tribal factor of 10% might apply. For carriers having 25% up to 50% of its customer base living on Tribal lands, a Tribal factor of 25% might apply. For carriers whose customer base exceeds 50%, a Tribal factor of 50% might apply. This Tribal factor additive would be intended to cover the higher investment costs and operating expenses incurred on tribal lands.

In SWC's case, with nearly 96% of its customers residing on Tribal lands, all of our operating expenses reflect a higher cost of doing business on Tribal lands. For

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<sup>7</sup> 2015 TELERGEE BENCHMARKING STUDY, A STUDY FOR THE RURAL TELESOM INDUSTRY, Based on 2014 data from 197 companies, Published by TELERGEE Alliance. ("*Telergree survey*")

example, the hiring, training, and coaching of employees, thanks to a limited available labor pool and stringent compliance requirements under the Navajo Preference in Employment Act, increase Human Resource-related expenses beyond those experienced off Tribal lands. A vehicle or gasoline expense budget mechanism for SWC's territory must be 50 percent higher than one for an average rural carrier, and customer service expenses, including recruitment of bilingual<sup>8</sup> applicants, drive times to solicit Lifeline recertification or address information for rural address applications, should be 50 percent higher than in other rural carriers' territories. Rights of way, including labor costs and land use fees, should be no less than 50 percent above the national rural average. (Sacred Wind's Customer Service Expense for 2014 is 47% higher than similar size companies that participated in the Telergee survey.)

SWC has three Outside Plant Technician offices to cover 3,200 square miles of service territory and to service our 3,500 access lines. Our Outside Plant Technician trips on Tribal land to install or repair service amounted to 224,182 miles in 2015; Engineering employees' travels on the reservation - 20,598 miles; and our IT team repairing radio antenna, digital loop carrier cabinets, etc. - 40,485 miles. Warehouse deliveries and administration completed thousands more miles.

In 2015, SWC spent \$40,838.36 in truck maintenance, \$104,329.95 in gas expense, and \$177,585.87 in vehicle purchases. (Sacred Wind's Plant Expense in 2014 is 84% higher than similar size companies that participated in the Telergee survey.) Rough terrain, washboard dirt roads, mountain climbs through snow to reach our towers, long distances on Tribal lands, and 361,819 total miles covered in 2015 placed a great deal of wear and tear on our ageing trucks. Seventy percent of the roads on Navajo lands are unpaved; this leads to added maintenance and a shortened useful life for these vehicles. Off road vehicles are necessary to reach the top of mesas or mountains where our towers are placed. In winter, these mountain roads are impassable without rented Snowcats.

SWC has three employees dedicated to Tribally oriented service, that includes managing through Right of Way ("ROW") applications processes, working with Tribal government on procedures and policies, and operating within the cultural norms of our community (described as community relations), promoting the Tribal Lifeline program and customer sign-ups. Our ROW, permitting fees, environmental and archaeological surveys, and corresponding employees' labor costs were \$173,400 in 2015 and predicted to be \$853,661 in 2016 due mainly to a fiber project planned for this year through 2018.

As stated earlier, SWC operates mainly on Tribal lands and nearly 96 percent of our customers are members of the Navajo Nation. The Navajo Nation is a sovereign nation, authorized by the U.S. Federal Government to govern themselves and their dealings with companies carrying out business within the Tribe's territory. In August 2011, the Navajo Nation Telecommunications Regulatory Commission ("NNTRC")

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<sup>8</sup> Bilingual in this context refers to the ability to communicate well in the Navajo and English languages.

issued a Notice of Proposed Rulemaking in which it created a regulatory process for telecommunications providers that operate on Navajo lands. In 2015, the NNTRC directed these telecommunications providers to complete an application for a Certificate of Convenience and Necessity (“CCN”), agreeing to subject themselves to the NNTRC’s regulation. Even acknowledging the Navajo Nation’s right to establish this CCN regulation, this additional layer of legal and regulatory processes and obligations come with associated costs and time demands for our Company. The NNTRC more recently distributed a new set of tower siting regulations involving a sizable annual fee for each tower, requiring a couple rounds of comments from SWC and legal assistance. This duplicative regulatory compliance of state and Tribal commissions is an added expense to our company, estimated at \$120,000 annually. (Sacred Wind’s Corporate Expense for 2014, which includes External Relations Expense, is 91% higher than similar size companies that participated in the Telergee survey.)

Nearly 40 percent of SWC’s customer base subscribes to our broadband service and this number grows every Quarter. Even though 10/1 Mbps broadband service is available in various sectors of Sacred Wind’s territory, only 5% of our customer base purchases the 10/1 Mbps broadband speed. This is due more to our customers’ income than to service availability. Because we serve poorer communities, most subscribers purchase the lower broadband speeds along with basic voice service. This translates to lesser revenue per customer and slower growth of the company’s broadband customer base. It also requires more personal handling of bill payments by bilingual Customer Service Representatives. Sacred Wind hires higher-paid Navajo bilingual customer-interfacing employees whenever possible to help with many of our subscribers who do not speak English.

An estimated 14% of our customer base are senior citizens, Navajo Elders, who, as a group, live almost entirely under the federal poverty guidelines. Additionally, many of these Elders do not speak or read English and do not understand the majority culture’s concept of business, forms, checking accounts, credit cards, or the federal government’s need to recertify a household for Lifeline service, etc. Many do not read or write Navajo (as Navajo has not been, traditionally, a written language). In fact, we have had several of our Elder Navajo customers not know how to sign their name, so they sign applications with an “X”. When you combine these circumstances with a historically imprinted distrust of the majority culture, it takes much more time to explain our services, complete an application with them, and explain a federal program like Lifeline. This considerable amount of time to properly serve our customers is accepted, but costly.

Additionally, while Navajo Elders recognize the importance of a telephone, they do not initially show much interest in broadband, nor do they quite trust the intrusion of what they deem “outside influences” into their homes. With Sacred Wind’s guidance, they see their grandchildren on the Internet, learn how to communicate with distant family members via e-mail, and are interested in viewing websites regarding their own culture. SWC’s meetings with Elders at the various Chapter senior centers are

helping to familiarize them with the computer and the Internet. Over time, their comfort level will rise. The issue that remains is cost. In a home where an Elder's income may only be around \$7,000 or \$8,000 a year, the ability to purchase a computer would be impossible, viewed as a luxury, and the monthly cost of broadband would be challenging for many. This further makes the argument for a separate Tribal Lifeline subsidy for broadband, recognizing the smaller revenue contribution made by low income, and especially elderly, Tribal customers. It also calls for Tribes to include in their local government budgets adequate amounts for broadband service to be made available in the Tribal community centers and senior centers for the Elderly.

For a small, rural telecommunications company serving Tribal lands, these costs are necessary, expected, and onerous. They are part of doing business on Navajo lands. Quite simply, there are many levels of rurality which drive costs upward and Tribal lands in the western United States must certainly occupy the highest level imaginable.

5. Is there a need for a separate mechanism for calculating capital expenditure support for broadband expansion and preservation on Tribal lands (a Tribal Broadband Factor)?

Most definitely, yes. As described above, the costs of developing telecommunications infrastructures on tribal lands, and then maintaining them, are considerably higher than in any other areas of the Nation. After having incurred the labor and materials costs involved in a right of way permitting process, including archaeological and environmental reviews ("A&E"), required by the tribal government, the Bureau of Indian Affairs, the Bureau of Land Management, the U.S. Forest Service, and, in the "checkerboard" areas of the Eastern Navajo Agency, permits, at times, from several of them on one project, SWC then faces the added capital costs of installing fiber or copper cable or building tower infrastructure and extending electric power to topographically challenging sites. At two separate tower sites, SWC had to hire a bulldozer to pull a cement truck up the dirt road to the top of the mountain to pour the foundation for the towers. The price per yard of concrete under those conditions is two to three times more costly than elsewhere. (Sacred Wind's Plant Investment for 2014 is 94% higher than similar size companies that participated in the Telergee survey.)

The land lease or easement fee assessed by the Tribe, based in great part on the Tribe's consideration of the cultural value, not prevailing market value, of its land, has traditionally been orders of magnitude higher than lease or easement fees on non-Tribal lands. The easement fees have always been calculated after the surveying work has been completed, resulting in companies spending tens of thousands of dollars on surveys and A&Es only to discover a prohibitively expensive easement fee that ends the project. Recently, the Navajo Nation has proposed a new set of tower siting regulations<sup>9</sup> that provides much more structure in the process, including a fee schedule for land leases. The fees proposed, however, are more than twice that assessed currently and even apply to a wood or steel monopole that may serve no more than 20 homes. SWC has also been holding discussions with two other Tribes in New Mexico for an easement for fiber optic

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<sup>9</sup> See Navajo Nation Telecommunications Facilities Siting Regulations, NNTRC, March 4, 2016.

cable onto and across their lands. That cable is primarily intended to unite 300 isolated Navajo homes with SWC's larger exchange 50 miles west of them, and is intended to be made accessible to the other two Tribes. One of those Tribes requires an annual easement fee totaling over \$2.6 Million over 15 years and nearly another \$1.0 Million in in-kind facilities. Such costs, if calculated as a cost of building the infrastructure, would cause SWC to exceed a per-subscriber limit on capital spending or, if calculated as an annual operating expense, would increase SWC's system-wide annual cost per loop by over \$50.00.

As stated earlier, SWC's costs to buy and maintain utility trucks are probably higher than in most other rural areas of the country due to the harsh terrain and distances between homes along neglected dirt roads. The per subscriber cost of middle mile and last mile cable are higher than in many other areas due to low housing density and rights of way requirements; the costs per subscriber of a middle mile (licensed radio backhaul) and a last mile (unlicensed distribution radio antenna and subscriber CPE) fixed wireless network are higher than a copper cable or fiber to the home network built in an incorporated rural village, though perfectly suitable for conquering the digital divide on Navajo lands. The costs to install, operate and maintain 48 digital loop carrier cabinets, providing voice and broadband services to over 3,000 customers, is likely ten times those of a rural carrier with a housing density ten times that of SWC's service territory. The costs to upgrade middle mile fixed wireless hardware, which includes replacement of licensed microwave access points, unlicensed distribution access points and base stations, and digital cabinet electronics every 5-8 years, exceed the maintenance costs of landline facilities, a tradeoff for the enormous savings of laying hundreds of miles of distribution and last mile cable over 3,200 square miles of Tribal desert and lava rock lands.

SWC concludes that a Tribal Broadband Factor for the development and preservation of a broadband system will be vital for companies possessing the obligation and desire to serve Tribal lands. For ease of administration, the Tribal Factor should be set according to a scale dependent on the percentage of Tribal customers living on Tribal lands calculated against the total customer base of a RoR provider.

We hope we have adequately described the marked differences in efforts and costs that tribally serving carriers experience in serving our customers, as compared to the experiences of other carriers serving nontribal lands. The rationale behind the federal government's Universal Service policies and programs has always been amplified in Tribal areas and the need for the continuation of those programs on Tribal lands still remains strong. SWC believes that we have been prudent and forthright in our use of federal support as we have built out and operate a remarkably successful network for our hard-to-reach customers. SWC appreciates the work that the FCC has devoted to USF reform and congratulates the FCC for this comprehensive plan. We urge the FCC to further develop from its plan mechanisms that will provide higher cost companies such as SWC the ability to continue to expand and improve our services.

[electronically signed]

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