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

In the Matter of	)	
	)	
International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act	)	GN Docket No. 09-47
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act.	)	GN Docket No. 09-137
	)	[DA 09-2194]

NBP PUBLIC NOTICE #12 – "COST ESTIMATES FOR CONNECTING ANCHOR INSTITUTIONS TO FIBER"

INITIAL COMMENTS OF THE SOUTH CAROLINA TELEPHONE COALITION

The South Carolina Telephone Coalition ("SCTC"),[1] by its attorneys, hereby submits its comments to the Federal Communications Commission's *Public Notice Seeking Comment on Cost Estimates for Connecting Anchor Institutions to Fiber*.[2] For ease of reference, the specific questions to which the SCTC is providing comments are reproduced below, and the questions are numbered as they appear in the *Public Notice*.

[1] The South Carolina Telephone Coalition is a group of twenty-one rural incumbent local exchange carriers ("ILECs") collectively providing telecommunications services throughout the state of South Carolina. Each of the Coalition member companies is a rural telephone company as defined in 47 U.S.C. § 153(37). A list of the Coalition member companies is reflected in Attachment 1.

[2] *Comment Sought on Connecting Anchor Institutions to Fiber*, NBP Public Notice #12, GN Docket Nos. 09-47, 09-51, and 09-137, DA 09-2194 (rel. October 8, 2009).

1. Are there other categories of buildings that should be considered anchor institutions?

The SCTC believes the definition of anchor institutions is sufficient.

2. How well do the four categories of population density (dense urban, urban, suburban and rural) segment anchor institutions? Is there need to further divide, for example, the rural grouping (<1,000 persons per square mile) to treat more remote areas differently?

It is difficult to determine how accurately these categories capture the nature of the areas, because much of the available U.S. Census data is based on county or place as opposed to zip code. However, it does not appear that the population density categories would be adequate to sufficiently distinguish among urban, suburban and rural areas of South Carolina, and other states may have similar issues. The population densities appear to be too dense on the high end, and lacking in sufficient categories on the less-dense end of the spectrum to accurately portray major sections of the country. For example, using the "rural" category of <1,000 persons per square mile, it appears that only those zip codes in the most densely-populated portions of the state would be considered anything other than rural. Overall, the 2000 U.S. Census shows that South Carolina had 133.2 persons per square mile. The most densely-populated city, Greenville, falls in the middle of the "suburban" designation, with a population density of 2,148.0, and both the City of Charleston and the Capital City of Columbia would be considered "rural," with population densities of 996.5 and 928.6 persons per square mile, respectively.

3. How accurate is the assumption that 80% of anchor institutions lack fiber? Does it vary across the different population-density groups? Does it vary by type of anchor institution?

The assumption that 80% of anchor institutions in South Carolina lack fiber facilities is not correct. Additionally, the assumption that fiber connectivity rates are uniform across-the-board for anchor institutions is inaccurate. In South Carolina, the percentage of anchor institutions with fiber connectively is much higher than the 20% assumed in the study, and the

percentage varies across the different types of anchor institutions. K-12 public schools, hospitals, and community colleges in South Carolina have extremely high fiber connectivity rates. The rural telephone companies in South Carolina began deploying fiber in 1984. Today, 95% of all schools in South Carolina (1,184 sites out of a total 1,248 sites) have fiber to the school. This fiber is used for data, Internet, and sometimes voice applications necessary between the District office and the individual schools. In addition to the schools, there is a District Office serving each of the 85 School Districts in the state, and 96% of these 85 District Office have fiber access with a minimum of 10 Mbps to the Internet.[3] The rate of fiber connectivity to hospitals and community colleges in South Carolina is also very high, with over 98% of hospitals and community colleges having fiber entrance facilities today in South Carolina.

While public libraries do not have the same level of fiber access that public schools, hospitals and community colleges do, it is still much higher than the 20% rate assumed in the Gates Foundation Cost Model. 40% of the State of South Carolina Library hubs have fiber access to the Internet. This 40% has a minimum of 10 Meg to the Internet. Fiber is available to the remaining library sites (over 40% of public libraries in South Carolina have fiber located within a few thousand feet of their premises), but funds and/or applications have not required additional bandwidth. Many libraries do not need fiber broadband service (i.e., exceeding 10 Mbps) to support today's library applications, and find the 1.5 Mbps T-1 level of broadband service to be sufficient for their purposes. If needed, expanded capacity can also be gained by bonding 2 or 3 T-1's to aggregate service to a 4.5 Mbps level that will meet most current application needs into the foreseeable future without the need for a fiber connection.

[3] For more information on technology in South Carolina schools, please see the "South Carolina K-12 Technology Initiative 2008 Progress Report," which can be found at: http://www.sck12techinit.org/documents/K-122008AnnualReport070909_006.pdf.

4. To what extent are the cost estimates for bringing fiber to individual buildings accurate?

a. Are the average loop lengths a reasonable representation of the distance to currently available fiber access points for each density group?

No. As stated above, over 98% of hospitals and community colleges have fiber entrance facilities today in South Carolina, and 95% of all schools already have a fiber connection. The average loop lengths needed to reach available fiber access points in South Carolina would be much lower on average than the loop lengths presented in the cost study.

b. Are the costs for aerial and trenched deployment representative?

The SCTC has no specific comment on this item.

c. Is the ratio of trenched to aerial deployment in the high-end cost estimate reasonable for urban and suburban areas?

The ratio does not appear to be representative of South Carolina.

d. To what extent will aerial plant be available in urban and suburban areas? To what extent will it be possible to add fiber to existing utility conduits or make use of dark fiber, thereby reducing trenching costs, in urban and suburban areas?

As noted above, according to the break-outs used in the study, it appears that much of South Carolina would be considered rural. Thus, the study appears to be skewed in this respect, at least as it relates to South Carolina, with very few areas of South Carolina being classified as urban and suburban. Aerial plant infrastructure is available in many areas, but SCTC member companies' experience has been that it is not the first choice of local regulators in what we would consider urban and suburban areas of South Carolina. They want fiber buried. As for adding fiber to existing utility conduits, providing duct banks in urban areas is so costly and disruptive that owner/providers hold these assets for future needs as a key component of their long-term business planning strategies, and conduit and pole space is scarce in urban areas.

e. Is it reasonable to assume all-aerial installation in rural areas? Is the assumption about requiring 30% new poles accurate? Is the $2-4 per foot cost reflective of the cost of these new poles?

All-aerial construction is not possible in many rural areas due to local governing municipal and county ordinances, State Department of Transportation regulations, and pre-existing right-of-way owners (for example, railroad company rights-of-way).

f. Is the termination cost per building accurate? Is it reflective of both equipment of sufficient capacity and of the labor required to install it?

The SCTC has no specific comment on this item.

5. What incremental inside-wiring, or campus-wiring, costs should be added to these estimates? For what type of institutions in what geographies?

None. 99% of all South Carolina community colleges and hospitals have in-house or on-campus wiring in South Carolina today. Local libraries can use secure wireless LAN access methods very inexpensively to access fiber networks within their buildings.

6. To what extent will right-of-way issues lead to incremental costs not reflected in these estimates? How will right-of-way issues impact the timeline of build-out to these institutions?

There will be extensive costs added to construction in certain regions due to Department of Transportation, railway, and electric utility right-of-way permitting. Franchise fees imposed by municipal, county, State Department of Transportation and other franchising bodies will greatly increase the costs for these projects in most areas. It has been the experience of SCTC member companies that right-of-way issues frequently increase both the cost and projected completion dates of construction projects.

7. Should operating expenses be a consideration when calculating cost for connecting anchor institutions to fiber? What operating expenses would be associated with running these networks, and how would those vary by type of institution and geography?

Operating expenses are a critical consideration when calculating the overall cost of connecting anchor institutions to fiber. Without long term operational funds, the infrastructure will fall into disrepair in short order, and its useful life will be greatly diminished. Some of the items that should be taken into consideration are: city, county, and state road moves; fees to locate and mark cable; database installation and upkeep; emergency and normal repair costs; and the cost of on-site or regionally-stored maintenance equipment or, alternatively, the cost of maintenance contracts. These recurring costs can average from 8% to 13% of the capital cost annually.

8. To what extent will providing fiber to these institutions improve the build-out economics in currently un- or under-served areas?

Fiber networks are only one part of the overall development infrastructure needed to improve the build-out economics in un-served and under-served areas. Without balanced and supporting infrastructure (i.e., roads, water, sewer, electric power), the value of a fiber optic network as an economic stimulus tool for un-served or under-served areas is extremely limited. The study must include the supporting needs of development to insure the expansion of economic growth in these areas.

9. To what extent will providing fiber to these institutions directly assist last-mile build-outs in currently un- or under-served areas? For example, will bringing fiber to local schools generally provide shorter loop lengths to surrounding homes, or is the location of the communications plant relative to the school and community the primary driver? How will that vary by population density?

As discussed above, the rate of fiber connectivity to anchor institutions in South Carolina is much higher than the levels assumed in the Gates Foundation Cost Model. Fiber network

depth and breadth is a driver for most rural telephone companies in South Carolina, but deployment is based on overall economic community and business drivers rather than the needs of one particular subset of users. Historically, the installation of fiber in anchor institutions has justified the extension of fiber into surrounding areas where demand already exists. The existence of fiber alone does not cause market demand. Local demographics and overall commercial activity drive market demand and the economic viability of broadband networks. Building a high-speed broadband network in a very low density rural area with little economic activity, little explicit demand, or few anchor institutions is equivalent to building a highway to nowhere.

Respectfully Submitted,

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Attachment 1

South Carolina Telephone Coalition Member Companies

Bluffton Telephone Company, Inc.

Chesnee Telephone Company

Chester Telephone Company, d/b/a TruVista Communications

Farmers Telephone Cooperative, Inc.

Ft. Mill Telephone Company, d/b/a Comporium Communications

Hargray Telephone Company, Inc.

Home Telephone Company, Inc.

Horry Telephone Cooperative, Inc.

Lancaster Telephone Company, d/b/a Comporium Communications

Lockhart Telephone Company, d/b/a TruVista Communications

McClellanville Telephone Company

Norway Telephone Company

Palmetto Rural Telephone Cooperative, Inc.

Piedmont Rural Telephone Cooperative, Inc.

PBT Telecom

Ridgeway Telephone Company, d/b/a TruVista Communications

Rock Hill Telephone Company, d/b/a Comporium Communications

Sandhill Telephone Cooperative, Inc.

St. Stephen Telephone Company

West Carolina Rural Telephone Cooperative, Inc.

Williston Telephone Company