David H. Armistead
General Counsel & Secretary

July 1, 2015

By Electronic Transmission

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, D.C. 20554

***RE: Connect America Fund*, WC Docket No. 10-90; *Universal Service Contribution Methodology*, WC Docket No. 06-122**

Dear Ms. Dortch:

On June 29, 2015, Andrew Rein, Interim Chief Financial Officer and Vice President, Strategic Planning and Development; Trey Judy, Director of Regulatory; and the undersigned, General Counsel and Secretary, all of Hargray Communications Group, Inc. ("Hargray"), met with Carol Mattey, Steven Rosenberg, Suzanne Yelen and Alexander Minard of the Wireline Competition Bureau and then held a separate meeting with Rebekah Goodheart, Legal Advisor to Commissioner Mignon Clyburn, and Amy Bender, Legal Advisor to Commissioner Michael O'Rielly, to discuss issues pending in the above-cited proceedings relating to the reform of the FCC's system for providing support to high-cost, rate-of-return local exchange carriers.

In the course of that discussion, the Hargray representatives noted their support for a forward-looking cost model option for rate of return carriers, discussed problematic results that were generated by the version of the forward-looking cost model initially released by the FCC, and offered a number of potential changes to improve the cost model (as presented in the chart set forth in Attachment A). They also discussed the need for a transition plan that included a 5% glide path.

The Hargray representatives also discussed several concerns regarding potential rules that would limit support to a carrier of last resort in the event unsubsidized competition exists in a portion of the carrier's study area. These concerns include erroneous National Broadband Map data regarding unsubsidized competition and the fact that any methodology to reduce support based on unsubsidized competition must recognize that the highest cost areas for a carrier of last resort, which require the most support, will be in areas where unsubsidized competition does not exist. The Hargray representatives provided the deck (Attachment B) to the meeting participants as a guide for the discussion.

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If you have any questions, please contact the undersigned.

Respectfully submitted,

/s/ David Armistead
David Armistead

cc: Carol Mattey
Alexander Minard
Steven Rosenberg
Suzanne Yelen
Rebekah Goodheart
Amy Bender

Attachment A
Model Change Considerations

[begins on next page]

Hargray Model Change Considerations

CHANGES IN DATA SOURCES		
Current Model	**Proposed Change**	**Rationale for Change**
The model does not have geo-coding for 2 million locations and assumes that these locations are along local roads	Solicit additional geo-coding data from companies. For remaining locations without geo-coding information, utilize industry studies on the appropriate average drop length.	The current data source is missing 30% of the locations. Companies who have carrier of last resort obligations generally have very good records, and their data is relatively easy to audit for accuracy. Locations for which this information is not readily available likely to have much longer than average drop lengths.
Uses 2011 Census information	Use Census estimate for population/housing units at the end of the model period (e.g., 2026 if the model is adopted in 2015). At a minimum, the model should use the most recent census data available (2014) and include a factor for projected growth.	A lot of investment is driven by housing growth, economic expansion, road moves, and similar factors. Using old information to model a theoretical network for 2011 is not reflective of current market conditions or how companies approach investment decisions. Companies design networks for the present and future, but never for five years in the past, and areas with growing populations and economies have to invest more to serve those on the periphery of their service territories.
Uses self-reported filings (477 reports) to determine where service available from an unsubsidized competitors	Start with self-reported data of actual locations served (instead of theoretical locations that could be served); to the extent a carrier believes that data is incorrect, it can challenge that data and the competitor should have the burden of proof to establish, through plant records, customer records, etc., that it actually does provide service to the applicable area.	Time Warner Cable ("TWC") has currently reported that it serves 97-98% of Hargray's two study areas. That assertion is false. For example, in the Bluffton Telephone study area, our detailed records indicate TWC cannot possibly substantiate a competitive coverage of more than 25% of that study area.

CHANGES IN MODEL ASSUMPTIONS		
Current Model	**Proposed Change**	**Rationale for Change**
Plant mix – currently estimated using statewide averages	Use updated, more granular data based on company surveys to develop average costs at the Zip-5 level.	Company-reported data is the most accurate data to model the proper plant mix in an area. Companies have no incentive under the rate of return or model structures to select an inefficient construction method. Hence, if aerial plant is the most efficient, that is the plant they will install. Zoning rules, gradient, hurricanes/tornadoes, foliage (limbs and roots) can cause companies to install more buried and underground plant. The assumed plant mix employed by the current model approach applies materially erroneous assumptions to many study areas.
Cost per foot – buried and "underground" plant is averaged based on broad assumptions (Part 1)	While the model can start with average costs, it should account for cost "adders" caused by construction in more expensive, but not unusual areas (e.g. neighborhoods with paved driveways or more rural areas with RR crossings and environmental sensitivities).	"Adders" would include missile bores under driveways, waterway crossings, railroad crossings, environmentally sensitive areas (specimen trees, species protection zones), bridge crossings, and marsh areas.
Cost per foot – buried and "underground" plant is averaged based on broad assumptions (Part 2)	Model should start with an average cost per foot with the adders discussed above, but the model also should be able to take into account plant that is required to be buried in uniquely challenging conditions, which result in an additional adder to the average cost per foot calculation.	"Uniquely challenging conditions" might include plant buried under rivers, lakes, and sounds, areas where there are other utility facilities competing for limited space, areas with road construction where companies have to move and re-bury plant, and areas where plant has to be buried at 48 inches instead of the normal 30-36 inches.
Cost of materials and equipment determined by average costs of price-cap companies	Cost of materials and equipment should be determined by average costs of rate of return companies.	It is a fact that smaller operators pay more for fiber and equipment based on smaller scale (purchasing power). Companies have no incentive to pay more for materials and equipment, but are nevertheless forced to do so because of their lack of buying power.

<table>
<tr>
<td>Model uses regional cost indexing for labor and other items susceptible to a different cost of living</td>
<td>Make cost indexing more specific, at least at the Zip-3 level.</td>
<td>Cost of living can vary significantly over a single state and even within a single county. This impacts labor rates, fuel costs, and more generally, contractor rates when they have to house their employees on a temporary basis.</td>
</tr>
<tr>
<td>The model currently excludes support where a competitor claims that it can provide service regardless of whether it acts as a residential carrier of last resort.</td>
<td>Burden for removal of support should be coverage for residential and business customers sufficient to take on the burden of carrier of last resort at rates and quality of service reasonably comparable to the incumbent. The requirement should be that a competitor serves 70% of the geographic area of a study area.

If these conditions are met, support should decline by a factor that accounts for fact that highest level of costs will be in those lightly served, high cost areas where unsubsidized competition does not exist. As a starting point for the factor, we used the assumption from the FCC's model that the last 15% of locations to be served account for ~50% of the costs. The support required for those areas would be slightly higher than the 50% cost figure because end user revenue would be less in those areas. We propose the following sliding scale for determining reduction in support:

<table>
<tr><th>Competion</th><th>Factor</th><th>Support</th><th>Support Calculation</th></tr>
<tr><td>100%</td><td>N/A</td><td>0%</td><td></td></tr>
<tr><td>95%</td><td>4.0</td><td>20%</td><td>4 x (100%-95%)=20%</td></tr>
<tr><td>90%</td><td>3.5</td><td>38%</td><td>20% + 3.5 x (95%-90%)=38%</td></tr>
<tr><td>85%</td><td>3.0</td><td>53%</td><td>38% + 3 x (90%-85%)=53%</td></tr>
<tr><td>80%</td><td>2.5</td><td>65%</td><td>53% + 2.5 x (85%-80%)=65%</td></tr>
<tr><td>75%</td><td>2.0</td><td>75%</td><td>65% + 2 x (80%-75%)=75%</td></tr>
<tr><td>70%</td><td>1.5</td><td>83%</td><td>75% + 1.5 x (75%-70%)=83%</td></tr>
</table>
</td>
<td>Unsubsidized competitors cherry-pick. The most expensive network investments serve the outlying areas where there are fewer, and often lower-credit, customers that buy fewer services. Simply eliminating support based on a percentage of coverage by a competitor and ignoring the relative costs of carriers of last resort that are the only providers serving the highest cost areas significantly threatens the ability of the companies of last resort to serve the highest cost areas. Companies of last resort require lower-cost areas (including those with competition) to subsidize high-cost areas. Our definition therefore carves out cherry-picking competitors while keeping the principle in place for those areas where there truly is material, study-area-wide unsubsidized competition. And to the extent support is reduced in situations where there is material unsubsidized competition, support does not drop in a linear fashion in recognition of the fact that the unserved locations and geographies are almost certainly the highest cost locations.</td>
</tr>
</table>

The model assumes broadband take rate of 80% of locations and voice take rate of 100% of those taking broadband.	Use averages of voice penetration for residential and business and update these each year to determine the average revenue the carrier receives from the customer as an offset to the support calculation.	Residential voice take rates are approximately 60% currently, with annual declines of two to three percentage points. Although commercial voice penetration rates are higher, those rates are also declining. Interestingly, those companies who have made the very broadband investments sought by the FCC make it easier for commercial entities to make use of voice in the cloud, which erodes penetration of traditional voice services. This will have the effect of having more locations to qualify for support and also push more locations over the per-location cost threshold for support eligibility.
The model provides for equal recovery of cost of capital despite the fact the full investment is made in year 1 and depreciated over 25 years.	Adjust the cost of money calculation to reflect higher capital investment before the network has been depreciated.	The current structure produces a negative rate of return over the life of the plan. For example, Hargray's projected investment of over $83M will yield negative cash flow of $8M including all end user revenues.
The model calculates the cost of building the entire network. Then, it assumes that the carrier has special access or non-regulated services using the network and deducts some unknown (to us) level of costs for providing those services before it calculates support for end user broadband.	Make public what those reductions are and ensure they comply with existing FCC rules (64/36/69). The FCC has already addressed this issue in this section of its rules. Companies should self-report revenues received from special access or other non-regulated operations and FCC should use its existing part 69 rules to determine an appropriate margin for those services.	We agree with the principle that companies should lose a certain amount of support if it is leveraging its network for other sources of revenue. However, the best way to know how much they are able to leverage that network is to have companies report on the revenue they receive from these sources. And then, once that is known, just use the existing rules to determine margin on that revenue.
Model assumes the existence of conduit and poles as well as sharing of trenching costs	Use plant mix data reported by companies (see above) to determine level of shared infrastructure. In addition, joint trenching should never be assumed to be available.	In service areas that are predominantly buried, there is rarely conduit or other shared infrastructure available. Joint trenching is used, but mostly for new, planned community developments and not in higher cost areas. In addition, joint trenching should not be an assumption because this model implicitly assumes fiber builds will be overbuilds where existing utility infrastructure is already in place. It is unlikely that another entity will be trenching at the time and place a carrier needs to deploy fiber in an overbuild situation.

CHANGES IN MODEL DESIGN		
Current Model	**Proposed Change**	**Rationale for Change**
The model assumes a FTTH network with the stated goal of providing 10 Mbps.	The model should assume a DSL network using DSLAMs, shortened loops, and bonded modems. Alternatively, the model should calculate operating expenses based on a hybrid network evolving toward fiber and away from copper as economics dictate.	This change would reduce a company's modeled cost and thus reduce support. However, we believe there is no compelling reason to build the model based on a theoretical FTTH overbuild if 10/1 Mbps could be achieved over an upgraded copper network. We and other companies have done this because it is the most economically efficient approach. While the FTTH network configuration may "future-proof" the network, that is not a stated goal of the FCC, nor should it be. 25x3 Mbps can be provided at 8,000 feet and 10x1 Mbps at 12,000 feet on a bonded modem. We are able to provide 50 Mbps on our copper network to a majority of our customers and expect to provide 100 Mbps across copper within the next 12-24 months. Before adding DSLAMs to our network to improve the bandwidth capabilities of our copper plant, we did a study on the cost of adding DSLAMs vs. the cost of FTTH with a goal of enabling 100 Mbps speeds. The cost for FTTH was 3.5x that of DSLAMs and 2x what the current model says our FTTH costs should be in a greenfield scenario. We wisely chose DSLAMs based on our correct prediction that 100 Mbps would be adequate to meet customer needs. There is no need to construct a FTTH network when a cheaper and speedier network design can deliver much more than the desired service standard. Such a decision has major consequences under the current model. Repairs/maintenance expense is higher on a copper network (e.g., more electricity and more elements can fail), but that higher cost was justified by the savings of immense capital achieved by prudently investing companies. The model encourages big capex and discourages a more economically efficient capex and opex mix. As a result, the FTTH-based model is wasteful and unfairly directs support to build networks that are not required to meet broadband demands, while removing funding to support investments others made to make better use of their copper networks. Finally, our experience highlights the fundamental flaws in this model.

		Notwithstanding our already robust core network and fiber footprint, our actual experience in our actual area indicated that the cost to build fiber to our homes was 2x the model's estimate for a greenfield network in the same areas.
Operating costs for companies are determined by dividing costs reported by rate of return companies on their high cost loop filings by their overall gross investment. The ratio of operating cost divided by gross plant is then applied to the theoretical new network investment to determine total operating costs. That total cost amount is then divided by the number of locations to get an average cost per location. The model then uses the same average operating cost for each location.	Operating costs per location for the model should be determined by dividing total reported operating expenses by total loops. Projected total operating expenses should then be calculated by multiplying this ratio by total locations. To adjust for regional cost differences, the opex/loop ratio should be calculated on a Zip-3 basis. Total company opex would be calculated on a company by company basis using projected 2026 locations adjusted for <100% penetration (ex. projected locations x 70%).	Functions like provisioning, customer service, operations expenses are not related to investment at all. Even plant specific maintenance expense is not directly linked to investment cost. Lastly, use of gross plant in developing these factors inflates them since the gross plant includes assets that have already been depreciated. In many cases retirements have not been recorded because of record issues and the fact that retirements have no impact on the rate base on which companies are allowed to earn. Using total loops on the HCLS filing will capture the number of customers currently being served and adjust the cost per customer if the carrier is not serving all customers. Since the model projects expenses and revenue from serving all customers, it is appropriate to use total locations to generate appropriate operating costs for companies under the model.

No adjustment for population growth	Add in a population growth factor to account for the cost of designing the network of tomorrow instead of the one for yesterday.	We noted this earlier in determining the number of locations served (2026 instead of 2011), which does not do justice to the cost of growth. Constructing a network to serve a growing community is more expensive than for a static one. There is the cost of piece meal construction as well as the uneven and unpredictable nature of growth. For example, prior to the recession, Hargray constructed much of the network needed to serve a new community in an area without competition. This construction was done in conjunction with other utilities to minimize cost and be ready to meet anticipated demand. The anticipated growth never materialized.
No adjustment for investments with useful lives of more than 10 years	Adjust model to ensure recovery occurs over 10 years for assets that have longer useful lives.	Fiber investments have useful lives of 20-years so the depreciation expense does not get fully recognized in a 10-year window. Further, these are major investments that require a lot of capital which comes at a cost. So, while GAAP says these are assets that depreciate over 20 years (and they are in reality), from a financial standpoint, one has to get a better return than 20-year straight line to justify the investment.
No adjustment for weather conditions	Add adjustments to both capital and expense projections for weather conditions. We would suggest defining "challenging weather conditions" by isolating areas that receive more rainfall and/or lightning storms than the nationwide average and applying a 5-10% adder to the average cost.	Rain slows outside plant construction and increases expense given it is so unpredictable and disruptive to such activities. Lightning storms increase repairs/maintenance costs as well as materials costs. Hurricanes and tornadoes increase the cost to deploy and insure outside plant, and snow and ice add to maintenance expenses for aerial plant. Weather affects many network elements, and using simple, blended averages of operating and capital expenses unfairly disadvantages those in more challenging weather conditions.

No adjustment for salinity in the environment	Add adjustments to opex and maintenance capital for salinity in coastal environments	Salt in the atmosphere, soil and water increases corrosion of metallic conductors as well as customer premise, field, and CO electronics. It materially increases both operating expense and capital related to maintaining existing plant. Also, salt degrades metal wires placed with fiber optic cable that are designed to enable the identification of the location of buried cable. It degrades within a year or two to the point that it cannot be used for its intended purpose. Therefore, we have to use metal casings on our fiber cables, which make them more susceptible to lightening damage.
The model supports a network backbone capacity based on customer actually taking 5 Mbps, not 10 Mbps.	Model network capacity design should be based on the broadband service level designed to be delivered to the customer.	If we set up a support mechanism for a less robust network, then that is what we will get. We can debate what it is reasonable for USF to support, but we should design and cost out the network we want built. It would be counter-productive to make the investments to deploy a network only to have to rebuild it from its core halfway through the plan period.

Attachment B
FCC Discussion Deck

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HARGRAY

FCC Discussion

June 29, 2015

PROPRIETARY & CONFIDENTIAL

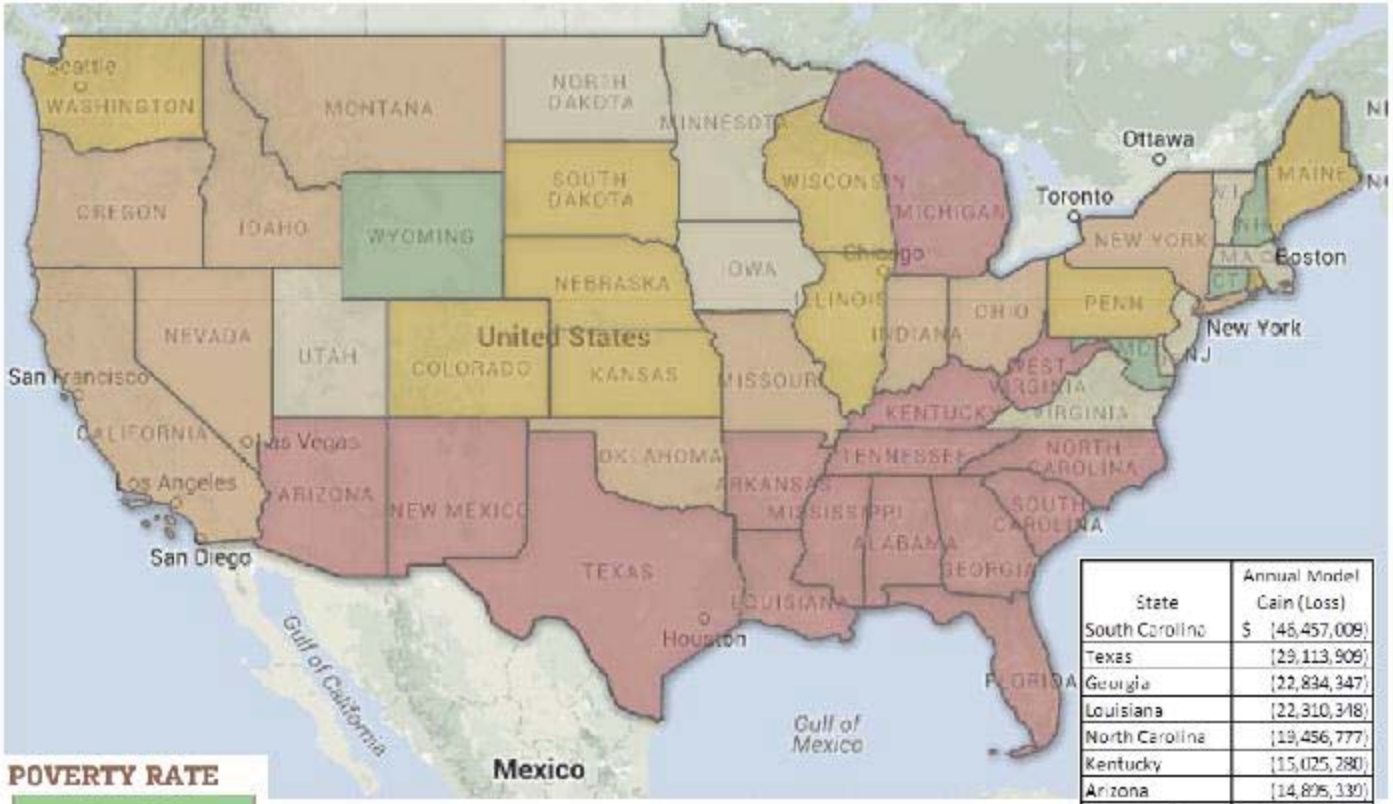
Overview

- Hargray is the incumbent local exchange carrier in two study areas covering portions of Beaufort and Jasper Counties in South Carolina which include Bluffton, Hardeeville, and Hilton Head Island
- We have been actively engaged in the USF reform proceeding, primarily through our trade associations (we are members of ITTA and NTCA)
- We support the FCC's goals of re-directing support to broadband, expanding broadband availability to 95% of locations, and providing an optional path to a forward-looking cost model for future support
- We have significant concerns with the proposals that are being considered and the process through which they have been developed
  - We have specific proposals to address those concerns that we believe can help put this effort on a path to a solution that both the FCC and industry can embrace
- We have three goals for our meeting today
  - The model – illustrate why the ACAM model (v1.3) released by the Bureau is completely unworkable in its current form and share some actionable changes to begin to address its deficiencies
  - Unsubsidized competition – explain how nuances in the approach to unsubsidized competition can have dramatic and unintended results
  - FCC-sponsored workshop – share an idea regarding how the FCC might alter/supplement its current approach for reaching a resolution with respect to rate of return reform, including the efforts to build consensus within the industry around a plan that is consistent with the FCC's objectives

The Model

- The Bureau model as released would lead to catastrophic and indefensible results
- Our state, South Carolina, loses *$46M annually*, and our company would lose nearly all of its support
  - There is no rational basis for this result, and there are many flaws in the model that we have identified as contributing to this outcome; we will be discussing about 20 of these flaws today with the Bureau
- There is a regional bias that cannot be defended
  - South Carolina, Alabama, Tennessee, North Carolina, Georgia, Kentucky, and Louisiana lose *$138 million annually*
  - Minnesota, North Dakota, Iowa, Nebraska, and South Dakota alone see support increase almost *$250 million annually*
- States with the highest poverty rates are hardest hit
  - Those states in the US with the highest poverty rates lose ~*$158M annually*, ~$1.6B over the proposed ten-year term of the model
- We have identified approximately 100 “bridge to nowhere” examples where massive amounts of support would go to companies without any obvious acceptable rationale; simply because that is what the model spits out
  - 15% of companies would have their support triple under the model, and ~70% of companies would have their support decrease or increase by 50% or more

The Model (cont.)



POVERTY RATE

- Below 11%
- 11-13%
- 13-15%
- 15-17%
- Above 17%

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State	Annual Model Gain (Loss)
South Carolina	$ (46,457,009)
Texas	(29,113,909)
Georgia	(22,834,347)
Louisiana	(22,310,348)
North Carolina	(19,456,777)
Kentucky	(15,025,280)
Arizona	(14,806,330)
New Mexico	(13,546,579)
Tennessee	(8,607,929)
Alabama	(5,003,407)
Florida	(4,362,158)
West Virginia	323,522
Mississippi	4,813,051
Michigan	16,449,196
Arkansas	22,655,484
Net Total	$ (158,371,830)

HARGRAY

The Model (cont.)

- We have ideas that would lead to a better model and also a transition plan that would give the FCC additional time
  - Today we will present the Bureau with a number of model changes that we believe will help address some of the anomalous results, but the model is extremely complex and will continue to be a work in progress
- Our transition plan provides time to work through the kinks, avoids dramatic and unjustifiable swings in support, and ensures that no carrier gets an increase in support unless that support increases broadband availability
  - Only companies that have less than 95% broadband availability in their study area would be entitled to increased support over what they receive today (Hargray's support would not be eligible to increase)
  - 5% per year governor on reductions in support
    - Avoids catastrophic flash cut losses of support that would place existing broadband infrastructure, as well as communities and companies, at risk
    - Ensures maximum number of companies will opt into the model from the current structure
    - Allows time to modify and adjust the model to address its current deficiencies
- We receive favorable responses from companies when we share these proposals, but have been unable to gain traction in the association consensus-building efforts
- Whether through our proposal or some other that is not yet on the table, we believe there needs to be a solid transition plan to models that avoids the unsupportable results on the previous slide

Unsubsidized competition

- We are very concerned about what proposals related to unsubsidized competition would do to rural broadband availability and rural communities and companies
- There are two aspects of this issue that are the most complex and have the highest risk of producing bad results
- The first is identifying where “unsubsidized competition” exists
  - The competitors’ broadband map data is inaccurate, and we have clear examples of that within our own study areas
  - The burden of proof must be on the competitor to ensure that support is not inappropriately reduced and/or the FCC and rate of return companies do not have to endure a massive and time consuming challenge process
    - For example, we suggest that the FCC use self-reporting from competitors (477s) to initially identify potential unsubsidized competition, allow the applicable rate of return carrier to file a challenge contesting any portion of such self-reporting, then place burden of proof on competitor to substantiate actual service to such locations through the production of customer and plant records
- The second issue is once unsubsidized competition is established, how should that determination impact support
  - To justify a reduction in support, competition must exist in high percentage of study area because competitors will cherry-pick the most desirable areas, leaving the carrier of last resort with the burden to serve the highest cost, lowest profit areas (something those carriers must have adequate support in order to do)
  - The threshold should be 70% of the study area served by unsubsidized competitors
  - If that 70% standard is met, the reduction in support should recognize that the non-competitive area left to the rate of return carrier will be the highest cost, least profitable area—i.e., the reduction absolutely cannot be linear; we have a specific proposal that applies a factor that recognizes this cost discrepancy

Unsubsidized competition (cont.)

- The proposed construct below is consistent with model results that reflect that ~50% of a company's cost is associated with the most expensive 15% of the service area

Competition	Factor	% of Support Retained	Support Calculation
100%	N/A	0%	
95%	4.0	20%	4 x (100%-95%)=20%
90%	3.5	38%	20% + 3.5 x (95%-90%)=38%
85%	3.0	53%	38% + 3 x (90%-85%)=53%
80%	2.5	65%	53% + 2.5 x (85%-80%)=65%
75%	2.0	75%	65% + 2 x (80%-75%)=75%
70%	1.5	83%	75% + 1.5 x (75%-70%)=83%

Conclusions

- The current form of the ACAM model proposed by the Bureau would result in very harmful results that are indefensible
  - There are some fairly straightforward tweaks that can begin to address its deficiencies
- The concept of using unsubsidized competition as a method of determining support levels is sound; however the details surrounding how that concept is applied are vital to avoid dramatic and unintended consequences
- An FCC-sponsored workshop which engages a cross-section of rate of return companies can better help progress this matter on a timely basis to meet the FCC's objectives