Attachment 2

Summary of Model Results

CostQuest Broadband Assessment Tool – Model Scenarios

This document provides a description of the parameters and results of four different model scenarios, including Scenario #3, which is the Coalition's solution for the distribution of Connect America Fund ("CAF") support. These scenarios provide insight into parameter values required to balance the goals of making robust broadband service available to the highest possible number of high-cost service locations while holding the total size of the High Cost Fund to $4.5B.

Key elements affecting the model scenario outputs are as follows:

- All model scenarios assessed the costs for telecommunications companies to deploy wireline broadband service that is capable of delivering actual speeds of 4 Mbps download and 768 Kbps upload.
- For all model scenarios, areas already served by a cable company offering broadband were not considered eligible for CAF support. Therefore, the results of all scenarios are highly influenced by available data regarding cable-provided broadband coverage. For scenarios 1, 2, and 3 below, an NTIA/Warren Media Blend was the model input for cable coverage.[1]
- Cost estimates presume that supported networks would need to offer capacity sufficient to enable broadband service to all service locations in areas qualifying for CAF support, while it was assumed that 90 percent would be active customers.
- In scenarios where the CAF is purposely constrained, CAF support was limited by use of an Alternative Technology Cost Threshold, whereby a threshold for CAF support would apply on a per Census Block basis and that threshold, if exceeded, would result in exclusion of the Census Block from the calculation of high-cost support available to a wire center (rather than serve merely as a cap on the amount of CAF support allocated to the Block). Locations excluded from CAF support pursuant to this threshold would be served by an alternative broadband technology (i.e., satellite).
- An $80 per service location benchmark was used on all scenarios. Only Census Blocks where average monthly costs exceed $80 per service location would be eligible for CAF support.

[1] "NTIA/Warren Media Blend" is a combination of cable coverage data from both the National Telecommunications & Information Administration ("NTIA") and Warren Media. The blend is accomplished by augmenting the NTIA data on cable-provided broadband coverage with Warren Media data on Census-designated places that are addressed by cable-provided broadband and have a density of greater than 35 service locations per linear mile.

No Limits Placed on the CAF

		Parameters				Results	
Scenario	Scope	CAF Fund Limit	Source of Cable Coverage Data	Benchmark	Alternative Technology Cost Threshold	Service Locations[2] Served by an Alternative Technology	CAF Fund
1	National - All ILEC Areas	none	NTIA/Warren Media Blend[1]	$80	none	none	$9.7 B
2	Price Cap Incumbent LEC Areas Only	none	NTIA/Warren Media Blend	$80	none	none	$5.9 B

Coalition Solution

3	Price Cap Incumbent LEC Areas Only	$2.2B	NTIA/Warren Media Blend	$80	$256	728 K	$2.2B

Model Scenarios

- Scenario #1 provides the estimated annual CAF support needed to offer wireline broadband to all high-cost service locations in the United States.[2] This scenario did not employ an Alternative Technology Cost Threshold. The annual CAF support required was estimated at $9.7 billion.

- Scenario #2 provides an estimated annual CAF requirement for only areas currently served by price cap incumbent LECs. This scenario also did not employ an Alternative Technology Cost Threshold. The annual CAF support needed to offer wireline broadband to all households and businesses in these areas is $5.9 billion.

- Scenario #3 is the Coalition's recommended solution. It focuses exclusively on areas currently served by price cap incumbent LECs, and limits the total annual disbursements from CAF to $2.2 billion for these areas. The $2.2 billion cap is maintained by setting the Alternative Technology Cost Threshold at $256 per service location, which means that the approximately 728 thousand highest-cost service locations will be served by an alternative broadband technology (i.e., satellite). This scenario would support wireline broadband for 4.2 million high-cost service locations. ILEC-provided broadband is currently offered in 2 million of these locations; the remaining 2.2 million locations would be addressed by new build-out funded by CAF support.

Impact of Cable Coverage Data Source

NTIA's State Broadband Data and Development ("SBDD") cable coverage data are generally known to understate cable-provided broadband coverage, but in some instances may overstate pockets of coverage at a granular level. There are a number of alternative commercial sources of cable coverage data, two of which are Warren Media and Nielsen. These sources reflect dramatically more cable-provided broadband coverage than NTIA's SBDD data.

The Coalition attempted to correct flaws in the NTIA data by blending the NTIA data with Warren Media data, which were readily available to the Coalition (unlike the Nielsen data). As compared to the NTIA data alone, use of the NTIA/Warren Media Blend had a significant impact on the analysis when a benchmark below $80 was employed, but produced little difference when the $80 benchmark was used.

[2] "Service Locations" refers to locations of both active and potential residential and small-business subscribers that are not covered by cable broadband.

The importance of accurate cable broadband coverage data cannot be overstated. Incorrectly excluding or including high-cost service locations will lead to an avalanche of challenges for the FCC to work through as the CAF program is rolled out, resulting in more administrative cost and delay. The release of an updated set of NTIA SBDD data scheduled for August 2011 should be an improvement over the current release.

Because one of the Coalition members had access to Nielsen cable coverage data, a variation of the Nielsen data also was created to gauge the sensitivity of model results. The alternative Nielsen-based cable coverage data set was termed "Nielsen 2% Red Within Green."[3]

		Parameters				Results	
Scenario	Scope	CAF Fund Limit	Source of Cable Coverage Data	Benchmark	Alternative Technology Cost Threshold	Service Locations[2] Served by an Alternative Technology	CAF Fund
4	Price Cap Incumbent LEC Areas Only	$2.2B	Nielsen 2% Red within Green[2]	$80	$369	347 K	$2.2 B

Scenario #4, a variation of Scenario #3, illustrates the impact of using this alternative source of cable coverage data when targeting the same amount of support. The Nielsen-based cable coverage reflects more cable-provided broadband coverage than the NTIA/Warren Media Blend that was used as inputs to Scenarios 1, 2 and 3. Compared to Scenario #3, fewer Census Blocks were modeled to receive CAF support, so wireline broadband could be used to address a larger percentage of the high-cost service locations while maintaining annual CAF support at $2.2 billion. The Alternative Technology Cost Threshold under Scenario #4 would be set at $369, rather than the $256 threshold used in Scenario #3.

[3] "Nielsen 2% Red Within Green" reflects an adjustment to the Nielsen cable coverage made at the Census Block level based upon a combination of CQBat CB cost and NTIA cable coverage that amounts to converting the top 2% most costly potential subscriber locations of the Nielsen cable coverage to be converted from covered (green) to uncovered (red).