

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matters of)	
)	
Connect America Fund)	WC Docket No. 10-90
)	
ETC Annual Reports and Certifications)	WC Docket No. 14-58
)	
Rural Broadband Experiments)	WC Docket No. 14-259
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**COMMENTS OF
ITTA – THE VOICE OF MID-SIZE COMMUNICATIONS COMPANIES**

**Genevieve Morelli
Michael J. Jacobs
ITTA
1101 Vermont Ave., NW
Suite 501
Washington, D.C. 20005**

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ITTA – The Voice of Mid-Size Communications Companies (ITTA) hereby submits its comments in response to the Federal Communications Commission’s Further Notice of Proposed Rulemaking seeking comment on specific procedures that will apply in the Connect America Fund (CAF) Phase II auction.¹

I. INTRODUCTION AND SUMMARY

ITTA’s price cap members embraced the opportunity to accept Connect America Phase II model-based support in their incumbent service territories, some accepting model-based support in all of the states where it was offered to them. Collectively, ITTA’s members accepted nearly \$900 million in annual support to expand and support broadband for approximately four million rural consumers in 44 states.² This corresponds to nearly 60 percent of the total Phase II model-

¹ *Connect America Fund; ETC Annual Reports and Certifications; Rural Broadband Experiments*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949 (2016) (*Order and/or FNPRM*).

² *See Wireline Competition Bureau Authorizes Frontier Communications Corp. to Receive Over \$283 Million in Connect America Phase II Support to Serve 1.3 Million Rural Americans in 28 States*, Public Notice, 30 FCC Rcd 6310 (WCB 2015); *Wireline Competition Bureau Authorizes* (continued...)

based support accepted nationwide³ and represents an enthusiastic response to the call to expand broadband deployment to myriad rural areas that have not enjoyed it heretofore. Now, ITTA's price cap incumbent LEC members are beginning to explore further expanding their broadband deployment via the CAF Phase II auction.

ITTA believes that the procedures the Commission adopts to govern the Phase II auction should emphasize breadth of deployment, efficient use of limited universal service funds, and fairness to consumers in all states. Consistent with the 10 Mbps downstream and 1 Mbps upstream (10/1 Mbps) standard applicable to Phase II model-based support, Phase II auction bids should be weighted in a manner that incents carriers to deploy high-speed broadband meeting (or exceeding) this standard at a price point that will actually encourage consumers to purchase it. Such weighting should also encompass negative weighting for high latency, which compromises

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FairPoint to Receive Over \$37 Million in Connect America Phase II Support in 14 States, Public Notice, 30 FCC Rcd 8435 (WCB 2015); *Wireline Competition Bureau Authorizes Additional Price Cap Carriers to Receive Almost \$950 Million in Phase II Connect America Support*, Public Notice, 30 FCC Rcd 8577 (WCB 2015); *Wireline Competition Bureau Authorizes Frontier to Receive Over \$48.5 Million in Connect America Phase II Support in California and Texas*, Public Notice, 31 FCC Rcd 3506 (WCB 2016); News Release, FCC, FairPoint Accepts \$37.4 Million in Annual Support from Connect America Fund to Expand and Support Broadband for Over 200,000 Consumers in 14 States (Aug. 19, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-334955A1.pdf; News Release, FCC, CenturyLink Accepts Nearly \$506 Million in Annual Support from Connect America Fund to Expand and Support Broadband for Over 2.3 Million Consumers in 33 States (Aug. 27, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-335071A1.pdf; News Release, FCC, Cincinnati Bell Accepts Over \$2.2 Million in Annual Support from Connect America Fund to Expand and Support Broadband for Over 14,000 Rural Consumers in Kentucky and Ohio (Aug. 27, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-335076A1.pdf; News Release, FCC, Consolidated Telecom Accepts Nearly \$14 Million in Annual Support from Connect America Fund to Expand and Support Broadband for Nearly 50,000 Rural Consumers in Six States (Aug. 27, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-335081A1.pdf.

³ News Release, FCC, Carriers Accept Over \$1.5 Billion in Annual Support from Connect America Fund to Expand and Support Broadband for Nearly 7.3 Million Rural Consumers in 45 States and One Territory (Aug. 27, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-335082A1.pdf.

the consumer's user experience regardless of the speed at which the service is offered.

Furthermore, the Commission's primary goal should be to maximize the number of locations served, regardless of which state they reside in.

II. THE COMMISSION SHOULD WEIGHT BIDS IN A MANNER THAT MAXIMIZES BROADBAND DEPLOYMENT AND ENCOURAGES ADOPTION BY CONSUMERS

In the *Order*, the Commission established four bidding tiers with varying speed and usage allowances.⁴ The Commission has designed the auction such that all bids will be considered simultaneously, with bidders proposing to meet one tier competing against bidders committing to meet the same or a different tier, and using weights to take into account the differing attributes of the different tiers.⁵ The Commission proposes to divide the annual amount of support per location requested per bid by the reserve price (i.e., model-based support amount per location) to determine an initial cost-effectiveness score for a particular bid, and then apply the weights to alter the initial cost-effectiveness score of each bid. Under this scheme, a higher-priced bid relative to the reserve price but for higher performance levels could be selected based on its "weighted score" – its score that will be compared to other bids once weights are applied – even if another bidder seeks less actual support to provide a lower-speed tier of service.⁶

In the *FNPRM*, the Commission seeks to further develop the record on how bids should be weighted.⁷ As a threshold matter, ITTA urges that weighting of bids be done in a manner that

⁴ The tiers require, in ascending order of speed, at least 10/1 Mbps, at least 25 Mbps downstream and 3 Mbps upstream (25/3 Mbps), at least 100 Mbps downstream and 20 Mbps upstream (100/20 Mbps), and at least 1 Gigabit per second (Gbps) downstream and 500 Mbps upstream (1 Gig). See *Order and FNPRM*, 31 FCC Rcd at 5950-51, para. 2.

⁵ See *id.* at 6021, para. 206.

⁶ See *id.* at 6021-22, paras. 209-11.

⁷ See *id.* at 6021, para. 207.

maximizes broadband deployment, and that such weighting should not incent bidders to sacrifice the maximum number of locations served in favor of serving a relative few at gold-plated speeds. While ITTA shares the Commission’s desire “to ensure that rural America is not left behind,”⁸ the Commission can best do so by ensuring that the Phase II auction results in deployment of broadband to, and adoption by, the maximum possible number of rural Americans. As discussed below, because each of the four tiers promises high-quality broadband service, efficient use of finite universal service funds dictates that the weighting of bids differentiate little among the four tiers.

A. In Establishing the Value of Weights, the Commission Should Take Cognizance of Subscribership Data for Broadband Services of Varying Performance Levels, in Conjunction with Their Relative Costs to Consumers

In the *FNPRM*, the Commission seeks comment on whether it should consider subscribership data for broadband services of varying performance levels and expected costs per subscribed location in establishing weights for the Phase II auction.⁹ ITTA responds with a resounding yes. Consumers, especially in the rural areas in which the Phase II auction will spur deployment, are price sensitive; they value affordable access to a good product over the premium costs associated with a premium product. The most recent Broadband Progress Report bears this

⁸ *Id.* at para. 208.

⁹ *See id.* at 6022, para. 213.

out. For starters, while some 90 percent of the US population has access to 25/3 Mbps service,¹⁰ only 37 percent have opted to purchase it.¹¹

Further, the broadband adoption rate in the first quartile (lowest) and fourth quartile (highest) of rural population is practically the inverse of the adoption rate in the first quartile (lowest) and fourth quartile (highest) of median household income, and the first quartile (lowest) and fourth quartile (highest) of population density.¹² Put more simply, broadband adoption data suggest that average household adoption rates increase with median household income and population density, and decrease as the rural population rate increases.¹³

¹⁰ See *Inquiry Concerning the 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 of 1996, as Amended by the Broadband Data Improvement Act*, 2016 Broadband Progress Report, 31 FCC Rcd 699, 764, Appx. D (2016) (2016 Broadband Progress Report).

¹¹ *Id.* at 744, Tbl. 10.

¹² See *id.* at 745, Tbl. 11. To illustrate, the following are the relative adoption rates of 10/1 Mbps and 25/3 Mbps service sorted by the demographic variables discussed above:

	10 Mbps/1 Mbps	25 Mbps/3 Mbps
County Median Household Income		
First Quartile (Lowest Median Household Income)	18%	12%
Fourth Quartile (Highest Median Household Income)	44%	32%
County Population Density Rate		
First Quartile (Lowest Population Density Rate)	20%	14%
Fourth Quartile (Highest Population Density Rate)	48%	32%
County Rural Population Rate		
First Quartile (Lowest Rural Population Rate)	48%	34%
Fourth Quartile (Highest Rural Population Rate)	18%	11%

¹³ *Id.* at 744, para. 102.

Moreover, as demonstrated in the *2016 Broadband Progress Report*, the rate of uptake of 25/3 Mbps broadband service by consumers slowed by over 70 percent in non-urban core areas from 2013 to 2014,¹⁴ despite 14 percent more Americans in rural areas securing access to 25/3 Mbps service during the same time period.¹⁵ In other words, between 2012 and 2013, when two percent more rural Americans gained access to 25/3 Mbps service, the adoption rate of 25/3 Mbps service in non-urban core areas increased by 17 percent, while between 2013 and 2014, when 14 percent more rural Americans gained access to 25/3 Mbps service, the adoption rate of 25/3 Mbps service in non-urban core areas increased by only 5 percent.

The inescapable conclusion is that rural consumers' broadband adoption rates are reacting at least in significant part to price sensitivity. The *2016 Broadband Progress Report* makes clear that households with the lowest median household incomes in the most rural areas are much less likely to adopt broadband than households with the opposite characteristics, and to the extent they do adopt, they are far more inclined to adopt less expensive 10/1 Mbps service than higher-priced 25/3 Mbps service.

An example to illustrate the point is found in the experience of one of ITTA's members, Frontier Communications Corporation (Frontier). As of the end of the second quarter of 2015, 75 percent of Frontier's broadband customers were still on a 6 Mbps downstream connection despite the fact that 73 percent of Frontier's markets were capable of delivering 12 Mbps or

¹⁴ See *id.* at 744, Tbl. 10. Specifically, the rate of consumer adoption of 25/3 Mbps service increased by only 5% from 2013 to 2014, whereas it had increased by 17% from 2012 to 2013. Overall in the US, the increase in the rate of consumer adoption of 25/3 Mbps service slowed by over 55% from 2013 to 2014 (8% increase) compared to between 2012 and 2013 (18% increase).

¹⁵ See *id.* at 737, Tbl. 7. Specifically, by the end of 2014, the percentage of Americans without access to 25/3 Mbps service in rural areas had declined from 53% to 39%, whereas in the previous year, it had merely declined from 55% percent to 53%.

faster downstream.¹⁶ This is also despite the fact that Frontier typically prices its 12 Mbps product as little as \$10 above its 6 Mbps product.¹⁷

Anchoring the rules to govern the CAF Phase II auction to empirical observation of consumer behavior and preferences is also fully in accord with the policies underlying the Commission’s decision, merely one-and-a-half years ago, to set the minimum performance obligations associated with the acceptance of Phase II model-based support at 10/1 Mbps. In the *December 2014 Connect America Order*, the Commission stated: “We expect carriers planning upgrades to their networks today would take into account near term and future consumer demand . . . [and] therefore find that it is reasonable to assume that many carriers upgrading their networks with Phase II support would aim to provide the capability to provide at least 10/1 Mbps”¹⁸

In light of these market realities, in order to maximize broadband deployment, the Commission should consider the price points, as they correlate to speed tiers, to which rural consumers are most likely to respond, in its establishment of weights for the Phase II auction.

¹⁶ See Sean Buckley, *Frontier’s Jureller: We Can Improve Verizon’s Broadband Service Without Large Investments*, Fierce Telecom (Sept. 16, 2015), <http://www.fiercetelecom.com/story/frontiers-jureller-we-can-improve-verizons-broadband-service-without-large/2015-09-16>.

¹⁷ See, e.g., Frontier, *Frontier Internet Prices*, <http://internet.frontier.com/plans-pricing.html> (last visited July 18, 2016) (“Broadband Ultra + Phone” plan, with downloads up to 12 Mbps, offered at \$10/month more than “Broadband Max + Phone” plan, with all other features the same between the two plans).

¹⁸ *Connect America Fund; ETC Annual Reports and Certifications; Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Obsolete ILEC Regulatory Obligations that Inhibit Deployment of Next-Generation Networks*, Report and Order, 29 FCC Rcd 15644, 15653, para. 23 (2014) (*December 2014 Connect America Order*).

B. The Commission Should Only Narrowly Differentiate the Weights Accorded to the Four Tiers

ITTA believes that the Commission, in establishing weights for the four tiers, should not differentiate significantly between 1 Gig and lower speeds. Given consumer price sensitivity as it relates to broadband adoption, as discussed above, the best policy for the Phase II auction is one that maximizes broadband deployment in the most efficient manner possible.

In emphasizing that one of the core principles underlying the auction should be to “maximize coverage,”¹⁹ Commissioner O’Rielly eloquently stated, “[ad]ding a tier that is significantly above market reality provides a nice soundbite, but it is a distraction from the effort to connect the maximum number of people with the limited dollars available under our budget. And as I have said before, we should buy fewer Lamborghinis and more Chevys.”²⁰

By differentiating minimally among the four tiers, the Phase II auction will promote efficiency, both by challenging bidders seeking to offer higher-priced tiers to do so as economically as possible, and by emphasizing a greater amount of deployment at a lower-speed tier, most likely 10/1 Mbps. If the tiers are valued correctly, then the bidding will maximize the economics of CAF Phase II auction funding.

This posture is fully consistent with the Commission’s adoption of a 10/1 Mbps standard for the offer to price cap companies of state-wide, model-based support.²¹ In doing so, the Commission “recognize[d] that carriers upgrading their networks may incur additional capital

¹⁹ *Order and FNPRM*, 31 FCC Rcd at 6111, Statement of Commissioner Michael O’Rielly Approving in Part and Dissenting in Part.

²⁰ *Id.*

²¹ Notably, in the *Order*, the Commission also uses 10/1 Mbps as the benchmark for excluding from the Phase II auction census blocks that a price cap carrier already serves, and as the performance standard for the Remote Areas Fund (RAF). *See id.* at 5973, 6019, paras. 70, 198.

investment costs to offer 10/1 Mbps,” and that “how much more costly this is in the real world depends on circumstances that vary by carrier, such as the location of existing facilities and distances to unserved locations.”²² Notably, the Commission concluded that “[t]o the extent a carrier believes the support offered is insufficient to meet the obligations, it may turn down the offer of Phase II model-based support.”²³ And this is what occurred in areas where the incumbent declined the offer of state-wide support. For the Commission to now expect that, via the Phase II auction, service providers will offer higher speeds for less support in many areas is not practical. Differentiating minimally in the weighting of the different tiers will acknowledge this reality while still incenting carriers to bid on higher service tiers in those limited cases where it is feasible to do so.

It bears noting that differentiating minimally between the weighting of the four tiers in a manner that may encourage bidding on the 10/1 Mbps tier does not necessarily portend that consumers in such areas will never receive speeds greater than 10/1 Mbps during the ten year auction funding term.²⁴ The market is evolving in the deployment and consumer adoption of higher speed offerings. Over the course of ten years, deployment costs should decrease, allowing providers to continue to increase the speeds at which they offer service. Broadband consumers will increasingly see the benefits higher-speed offerings can provide and will adjust their budgets accordingly.

In sum, the four speed tiers adopted by the Commission will provide rural consumers with high-quality broadband service options. The price differentials for broadband service at

²² *December 2014 Connect America Order*, 29 FCC Rcd at 15652, para. 22.

²³ *Id.* at 15652-53, para. 22.

²⁴ *See id.* at 15655, para. 29 (10/1 Mbps should not be the Commission’s “end goal” for recipients of support over the ten-year term of auction funding).

different speeds will have a far greater impact on consumer adoption than the qualitative differences among the services offered at different tiers. Therefore, ITTA urges the Commission to refrain from applying dramatically different weights to the four tiers. A reasonable approach could be to accord the 25/3 Mbps tier a 5 percent weight, the 100/20 Mbps tier a 10 percent weight, and the 1 Gig tier a 15 percent weight.

C. The Commission Should Accord Negative Weighting for High Latency

As the Commission has found, latency, which measures the time it takes a data packet to travel through the network, is “important for a variety of applications, including VoIP, video calling, distance learning, and online gaming,” all of which “may be effectively unusable over high latency connections, regardless of the download/upload speeds being offered.”²⁵ From the consumer perspective, latency is a more critical factor in the quality of the user experience than incremental speed differences.

While there should be no additional weighting of auction bids for low latency, the Commission should weight high latency negatively. In the *2016 Broadband Progress Report*, the Commission recounted how the *2015 Fifth Measuring Broadband America Report* had found the differences in average latencies among terrestrial-based broadband services to be small, and unlikely to affect the perceived quality of web browsing and video streaming.²⁶ Importantly, the average latency range for all terrestrial technologies was well under 100 milliseconds, which is the upper bound of the low latency performance level set forth by the Commission in the

²⁵ *Inquiry Concerning the 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 of 1996, as Amended by the Broadband Data Improvement Act*, Eleventh Broadband Progress Notice of Inquiry, 30 FCC Rcd 8823, 8835, para. 32 & n.69 (2015) (*Eleventh Broadband Progress NOI*).

²⁶ See *2016 Broadband Progress Report*, 31 FCC Rcd at 746-47, para. 108 (citing 2015 Fifth Measuring Broadband America Report at 7, 17).

Order.²⁷ Thus, it is unlikely that terrestrial bidders will distinguish themselves based on latency levels that are necessary for a satisfactory user experience. However, the high latency performance level may substantially impede the consumer's experience with a variety of applications,²⁸ and, therefore, bids including the high latency performance level should be subject to significantly reduced weighting.

III. THE COMMISSION'S APPROACH TO PHASE II AUCTION DESIGN VIS-À-VIS THE STATES SHOULD EMPHASIZE COVERAGE

The *FNPRM* poses two dozen questions regarding to what degree and how it should ensure appropriate support for all of the states in the Phase II auction.²⁹ It recognizes concerns expressed by those states where significant amounts of Phase II funding were declined, and expresses its goal to design a Phase II auction that achieves an efficient and equitable distribution across the states.³⁰

ITTA maintains that the Commission's overarching policy goal in addressing these questions should still be to maximize the number of locations served via the auction, regardless of how individual states fared when incumbents were offered model-based support. Nevertheless, ITTA acknowledges these questions raise potentially conflicting policy goals and judgments. On the one hand, a state's consumers should not be penalized based on its incumbent carrier's/carriers' decision(s) not to accept state-wide, model-based support. On the other hand, the broadest and best use of limited Phase II auction funds may not be served by sequestering large pools of funding for particular states. To balance these potentially conflicting priorities, the

²⁷ See *id.* at 747, para. 108; *Order*, 31 FCC Rcd at 5951, para. 2.

²⁸ See *Eleventh Broadband Progress NOI*, 30 FCC Rcd at 8835, para. 32 & n.69.

²⁹ See *FNPRM*, 31 FCC Rcd at 6023-25, paras. 217-24.

³⁰ See *id.* at 6024, para. 217.

Commission could adopt a modest per-state reserve floor based on the amount of model-based support declined in each state, while still earmarking the vast majority of funding to go to the most efficient use, wherever that may be.

There are two proposals in the *FNPRM* to which ITTA particularly objects regarding how to allocate auction funding across the states. First, the Commission observes that in a number of states the incumbents collectively accepted the vast majority of support, and the declined amounts and associated locations were *de minimis*. The Commission proposes not to apply to such states whatever auction rules it ultimately adopts in response to the *FNPRM*.³¹ ITTA disagrees. There are states – for example, Maine – where no support was declined, but where there could be substantial “RAF-like” areas eligible for support that a carrier may seek to serve.³²

Second, the Commission seeks comment on adopting weights to provide a preference “for those states that have made a meaningful commitment to advance broadband.”³³ Though the Commission references a handful of state initiatives,³⁴ it does not otherwise provide any guidance as to what would constitute a state’s “meaningful commitment” for these purposes. For instance, if a state helps to fund deployment at 4/1 Mbps, would that be considered a “meaningful commitment” in this context? While states certainly should be applauded for whatever funding they allocate to advance broadband within their borders, weighting bids in part based on the undefined “meaningful commitment” standard would add significant complexity

³¹ *See id.* at n.413.

³² In 2014, the Commission decided to include extremely high-cost blocks previously reserved for the RAF in the Phase II auction. *See Connect America Fund et al.*, Report and Order et al., 29 FCC Rcd 7051, 7060-61, para. 31 (2014).

³³ *FNPRM*, 31 FCC Rcd at 6024, para. 219.

³⁴ *See id.* at para. 218 n.415.

and political complications to an already complex, long overdue, undertaking. The Commission should decline to do so.

IV. CONCLUSION

In sum, the Commission should view the market from the consumer perspective in according weights to bids in the Phase II auction. Doing so will acknowledge that the vast majority of rural consumers are price sensitive and are more prone to adopt good broadband at a more reasonable price point than platinum broadband at a luxury price point. A consumer-focused approach would also lead the Commission to emphasize maximizing the number of locations served over serving fewer locations with an unnecessarily posh product. The weights the Commission establishes for the four Phase II auction tiers must reflect these priorities in order for the Phase II auction indeed to advance “universal service.”

Respectfully submitted,

By: /s/ Genevieve Morelli

Genevieve Morelli
Michael J. Jacobs
ITTA
1101 Vermont Ave., NW, Suite 501
Washington, D.C. 20005
(202) 898-1520
gmorelli@itta.us
mjacobs@itta.us

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