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VIA ECFS

January 9, 2013

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

Re: *Connect America Fund*, WC Docket No. 10-90 – Comments of CenturyLink

Dear Ms. Dortch:

Enclosed are the Comments of CenturyLink on Areas Shown as Unserved on the National Broadband Map for Connect America Phase I Incremental Support, which are being filed today via ECFS in the above-referenced docket.

A copy of this submission is also being transmitted via e-mail to Ryan J. Yates and Charles Tyler of the Telecommunications Access Policy Division of the Wireline Competition Bureau. Additionally, an electronic copy of Appendix B to the Comments, a list of CenturyLink-identified Census blocks, in Excel file format, is being transmitted via e-mail to Messrs. Yates and Tyler.

If you have any questions regarding this submission, please contact the undersigned.

Sincerely,

/s/ Jeffrey S. Lanning

Copy via email to:

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## EXECUTIVE SUMMARY

In these Comments, CenturyLink seeks to assist the Commission in determining which Census blocks in price cap areas should be eligible for CAF Phase I Incremental Support. Based on data submitted by third parties to NTIA, CenturyLink has determined that about 195,000 Census blocks should be added to the eligibility list for CAF Phase I Incremental Support. These include almost 13,000 Census blocks that are completely unserved but that do not appear on the list released with the Commission's December 10, 2012, *Public Notice* in this proceeding. In addition, although the National Broadband Map designates an entire area as served even if only one location in that area can get broadband, CenturyLink submits that it should be able to use CAF Incremental Support to serve (1) unserved locations in partially served blocks and (2) any locations where CenturyLink is the only fixed broadband provider and it can certify that broadband is not available at the Commission's 4 Mbps downstream and 1 Mbps upstream (4/1) benchmark.

Although CenturyLink was able to make this particular determination, the current process for adding eligible Census blocks alone cannot achieve the Commission's policy objectives because it does not provide a meaningful and feasible opportunity for service providers to address situations in which data submitted to NTIA — and on which broadband coverage in the National Broadband Map is based — is incorrect or insufficient. Unless these inaccuracies are corrected, tens of thousands of people in numerous areas will be left without access to broadband service at the benchmark set by the Commission itself. Two changes would make the National Broadband Map a more reliable tool for determining areas eligible for CAF Phase I funding.

First, the Commission should adopt a standardized dispute-resolution process that allows CAF Incremental Support recipients to bring targeted, quickly-resolvable challenges in just those locations where they would use such Support if the area, in fact, is unserved at the 4/1 standard.

In such a process, which could be based on standard notice and comment protocols, service providers would be required to substantiate their coverage claims in a particular Census block (or blocks) upon reasonable request.

Second, the Commission should move toward identifying eligible areas based on data that reflects the Commission's actual 4/1 standard rather than the slower 3 Mbps downstream and 768 kbps upstream (3/768) proxy. In the meantime, the Commission should raise the proxy to 6 Mbps downstream / 1500 kbps upstream, while requiring providers accepting CAF Incremental Support to limit the use of those funds to areas they certify do not already receive 4/1 service. This would ensure that all actually unserved areas are eligible for CAF Incremental Support.

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NTIA as “served” for CAF Phase I Incremental Support purposes do not actually have access to broadband service that meets the Commission’s eligibility criteria. This shortcoming — and the adverse impact it ultimately will have on American consumers — demonstrates that the Commission must allow for a one-time challenge process (which can be short in duration and limited to only those locations where service providers seek to deploy CAF Incremental Support) to elicit more accurate information on which to base U.S. broadband policy. Practically, this challenge process cannot occur until the Commission has established the criteria and obligations for CAF Incremental Support awarded in 2013, but it ultimately will be necessary to ensure that the broadband policy goals of the Commission can be fully realized.

Furthermore, and as discussed below, the process for identifying eligible areas should be based on data that reflects actual eligibility criteria rather than the ill-fitting proxy in use today. This will be particularly important on a going forward basis and with respect to Connect America Fund Phase II support. Notably, the Commission has input into the NTIA mapping process and can use that to ensure that the data on which the Commission’s policies and Connect America Fund distribution practices are based is as accurate as possible.

## **I. INTRODUCTION**

In the *USF / ICC Transformation Order*, the Commission adopted a new approach to universal service that for the first time extended explicit support for high-cost areas beyond voice services to advanced services such as broadband.<sup>2</sup> Among the goals set by the Commission were “ensur[ing] universal availability of modern networks capable of providing voice and broadband service to homes, businesses, and community anchor institutions” and “ensur[ing] universal

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<sup>2</sup> *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, WC Docket No. 10-90 *et al.*, 26 FCC Rcd 17663, 17679 ¶ 45 (2011) (“*USF / ICC Transformation Order*”).

availability of modern networks capable of providing mobile voice and broadband service where Americans live, work, and travel.”<sup>3</sup> CAF Phase I Incremental Support is intended to promote these objectives by spurring immediate broadband build out to unserved locations.<sup>4</sup> To be effective, therefore, CAF Phase I funds must be distributed based on an accurate understanding of which areas are served by broadband that meets the Commission’s standard of providing actual speeds of 4 Mbps downstream and 1 Mbps upstream (4/1).<sup>5</sup> If it is not, then tens of thousands of people in numerous areas will be left without access to broadband service at speeds that the Commission itself has concluded are “a reasonable benchmark for the availability of ‘advanced telecommunications capability.’”<sup>6</sup> This is because the Commission’s own rules will prevent carriers from using CAF Phase I funds to provide such service to consumers in those areas.

CenturyLink has reviewed the list of eligible Census blocks that was developed based on the National Broadband Map. In Section II below (and related appendices), CenturyLink identifies about 195,000 additional Census blocks — containing more than 3.3 million housing units — that are not currently on the eligibility list even though CenturyLink believes the National Broadband Map shows them to be unserved or partially served.<sup>7</sup> The list should be amended to include these as eligible Census blocks.

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<sup>3</sup> *Id.* at 17680 ¶ 48.

<sup>4</sup> *Id.* at 17673.

<sup>5</sup> *See id.* ¶ 22.

<sup>6</sup> *See id.* at 17696-97 & ¶ 93 (citation omitted).

<sup>7</sup> Given the amount of data, the complexity of the required analysis, and the limited time the Commission allowed for preparing initial comments, CenturyLink’s analysis here may be subject to amendment.

But this is not the only issue the Commission must address in connection with Census block eligibility. Another problem with using the National Broadband Map to establish eligibility is that the voluntary nature of the data submissions used to develop the Map has resulted in inaccuracies that cannot easily be remedied without an appropriate “challenge” process. It would be infeasible and unduly burdensome for all parties to use this particular comment and reply comment cycle to clear up errors in the data underlying the National Broadband Map. CenturyLink previously identified numerous areas improperly shown as “served” based on plainly inaccurate coverage data,<sup>8</sup> so some sort of “challenge” process clearly is needed to get the facts straight. Currently, those claiming to provide service in an area on the National Broadband Map have no initial obligation (and probably should not have an obligation) to provide support for their coverage claims.

As a practical matter, this approach to determining Census block eligibility makes it exceedingly burdensome, and in some cases impossible, for service providers to demonstrate that they should be permitted to use CAF Phase I Incremental Support in particular areas, even when those areas actually are unserved. Therefore, as discussed below in Section III, the Commission should establish a formal challenge process (which could be accomplished through standard notice and comment procedures) that would apply only to locations in which Incremental Support recipients seek to deploy broadband using funding once the rules for such funding are established by the Commission.<sup>9</sup> In addition, regardless of the form the challenge process takes, it is important that the burden of proof regarding coverage be placed on the service provider

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<sup>8</sup> CenturyLink Petition for Waiver, WC Docket No. 10-90, *et al.*, at 5-7 (filed June 26, 2012) (“*CenturyLink Waiver Petition*”).

<sup>9</sup> The Commission is in the process of developing the 2013 funding rules pursuant to a separate Notice of Proposed Rulemaking in this docket. *Connect America Fund*, Further Notice of Proposed Rulemaking, WC Docket No. 10-90, 27 FCC Rcd 14566 (2012).

claiming coverage, not on those challenging the claim, as the service provider claiming coverage is the only entity with reasonable access to the network information necessary to support such a claim.

Finally, the Commission must further address the National Broadband Map's understatement of eligible areas. This understatement occurs in part because the Map, by design, designates as fully served Census blocks that are only partially served by wireline technologies. Additionally, the Commission has recognized, at least implicitly, that the National Broadband Map was not designed to identify areas served at 4/1; that is why this proceeding is using 3 Mbps downstream and 768 kbps upstream (3/768) as a proxy for served areas.<sup>10</sup> As discussed below in Section IV, this proxy necessarily understates eligibility. There are a number of Census blocks where the only broadband provider in the area offers 3/768 to at least one location but does not offer 4/1 to any locations. Although we describe below some ways in which this issue can be addressed, it ultimately may be more advisable for the Commission to base the list of eligible Census blocks on the next higher tier of service in the National Broadband Map.

## **II. NUMEROUS CENSUS BLOCKS ARE SHOWN AS "SERVED" ON THE NATIONAL BROADBAND MAP WHEN THEY ARE NOT**

CenturyLink has compared the list of eligible Census blocks with the data submitted to NTIA that was used to generate the National Broadband Map. This analysis identified a total of 194,952 Census blocks, containing more than 3.3 million housing units, that are unserved or only partially served but that do not appear on the Commission's list of unserved Census blocks eligible for CAF Phase I Incremental Support. This includes almost 13,000 Census blocks that are completely unserved but that do not appear on the Commission's list. In addition, although

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<sup>10</sup> See *USF / ICC Transformation Order* at 17701 n.168.

the National Broadband Map designates an entire area as served even if only one location can get broadband, CenturyLink submits that it should be permitted to use CAF Incremental Support to serve unserved locations in partially served Census blocks. This is, in fact, wholly consistent with the Commission's clarification of its CAF Phase I Incremental Support rules that if the data underlying the Map show that a location is not served by a particular provider, then for CAF Phase I Incremental support purposes it is considered "unserved" by that provider.<sup>11</sup>

Additionally, CenturyLink should also be permitted to use CAF Incremental Support to serve any locations where CenturyLink is the only fixed broadband provider and it can certify that broadband is not available at 4/1.

The inclusion of additional Census blocks such as those found by CenturyLink is critical to ensuring that the Commission's overarching goal of broadband universal service is realized. As the Commission itself has recognized, "[f]ixed and mobile broadband have become crucial to our nation's economic growth, global competitiveness, and civic life."<sup>12</sup> To ensure that incremental Phase I support is distributed in ways that best achieve the Commission's own policy objectives, correctly and accurately portraying areas that are unserved is critical.

CenturyLink's analysis followed a careful, step-by-step process that relied on publicly available data provided by the Census Bureau and the National Broadband Map. Using this data, CenturyLink created visual representations of populated Census blocks within CenturyLink wire centers containing areas (1) where non-CenturyLink fixed providers offer broadband service at speeds of greater than or equal to 3/768, and (2) where only CenturyLink broadband is available at speeds of greater than or equal to 3/768. Overlaying these visual representations revealed the

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<sup>11</sup> *Second Order on Reconsideration*, FCC 12-47, 27 FCC Rcd 4648, 4651 ¶ 11 (2012).

<sup>12</sup> *USF / ICC Transformation Order* at 17667-68 ¶ 3.

combined broadband coverage within each Census block. A more detailed description of CenturyLink's methodology is attached as Appendix A. The list of Census blocks identified by CenturyLink as a result of this methodology is attached as Appendix B.

### **III. THE COMMISSION MUST ADOPT A STANDARDIZED PROCESS FOR CHALLENGING PROVIDERS' BROADBAND-COVERAGE CLAIMS**

The National Broadband Map, like most datasets of significant scope and complexity, contains numerous errors. Elsewhere in this docket, CenturyLink has noted that some coverage areas, as shown on the Map, are facially implausible — for instance, they show uninterrupted coverage within perfect circles that extend many miles from a cell site, or within areas defined neatly by county boundaries.<sup>13</sup> Although waiver petitions and semi-annual update proceedings such as this one provide forums for raising such concerns, there currently is no standard or established protocol for how such concerns should be presented or resolved. More importantly, there is no justification for attempting to address such concerns on a nationwide basis, as doing so would be infeasible and unduly burdensome for service providers and regulatory agencies alike. However, consumers who live in areas that are identified as “served” but lack actual access to broadband service will be harmed if the National Broadband Map is treated as dispositive for CAF support eligibility purposes. Given the critical importance of accurately identifying unserved areas, the Commission should not allow such coverage discrepancies to be resolved in this manner. Instead, the Commission should adopt a standardized dispute-resolution process, which could be based on the standard notice and comment protocols, that allows CAF Incremental Support recipients to bring targeted, quickly-resolvable challenges in locations where they would use such Support if the area, in fact, is unserved at the 4/1 level.

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<sup>13</sup> *CenturyLink Waiver Petition*, at 5-6.

In such a process, the burden should be on a service provider to substantiate its coverage claim in a particular Census block (or blocks) upon reasonable request. This is especially needed where coverage claims have not been independently verified under appropriate standards by the relevant state regulators. As CenturyLink has noted before, many states have not had the resources to conduct adequate verifications, leaving providers' coverage claims essentially unchecked.<sup>14</sup>

Others have noted the need for a standardized process to resolve coverage disputes. For instance, Connected Nation, Inc. (CN), an NTIA State Broadband Initiative grantee that studies broadband coverage in several states, also has urged the Commission to “establish a clear and simple method for resolving disputes around the data on the National Broadband Map.”<sup>15</sup> CN proposed an outline for such a process in October 2012.<sup>16</sup> CN stated there that it validates providers' service and speed claims through a variety of methods, including logical assessment of provider data, engineering field validation by CN engineers, and user driven speed tests.<sup>17</sup> Under CN's proposal, parties challenging a provider's coverage claims would first engage with SBI grantees in the relevant states in order to leverage such existing validation data.<sup>18</sup> Parties then could file a challenge with the FCC if they disagree with the SBI grantee's validation

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<sup>14</sup> *CenturyLink Waiver Petition*, at 5-6.

<sup>15</sup> Letter from Thomas M. Koutsky, Connected Nation, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket Nos. 10-90, 05-337 at 2 (filed Oct. 31, 2012).

<sup>16</sup> Letter from Raquel Noriega, Connected Nation, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket Nos. 10-90, 05-337 (filed Oct. 12, 2012), Attachment (*Mapping Disputes: Building an Effective, Efficient Process, for Challenging Broadband Availability Data*).

<sup>17</sup> *Id.*, Attachment at 3.

<sup>18</sup> *Id.*, Attachment at 6.

finding.<sup>19</sup> Such challenges would be accompanied by the SBI grantee's validation data and by the challenger's own field validation and engineering assessment.<sup>20</sup>

The principle underlying CN's proposal — that a standardized process for resolving coverage disputes is needed — should not be controversial. Undoubtedly, many parties will suggest improvements or alternative approaches to formulating an appropriate challenge process. What should not be in dispute, however, is that a standardized, effective, and fair process for challenging inaccurate coverage claims is urgently needed if CAF Phase I Incremental Support is to achieve the Commission's goal of spurring rapid broadband expansion.

#### **IV. THE PROXY FOR DETERMINING AVAILABLE SERVICE SPEEDS MUST BE INCREASED TO AVOID EXCESSIVELY NARROWING ELIGIBLE SITES**

The Commission adopted a minimum broadband speed benchmark of 4/1 for fixed-broadband CAF Phase I recipients.<sup>21</sup> The Commission set this benchmark after determining that “[b]roadband connections that meet this speed threshold will provide subscribers in rural and high cost areas with the ability to use critical broadband applications in a manner reasonably comparable to broadband subscribers in urban areas.”<sup>22</sup> Theoretically, carriers may use CAF Phase I support in any area not served by an unsubsidized competitor offering service that meets the Commission's benchmark.<sup>23</sup> However, carriers are prevented from serving many such areas by the fact that the Commission chose its threshold criteria for site selection using the National Broadband Map 3/768 standard. The National Broadband Map does not distinguish between

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<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> *USF / ICC Transformation Order*, at 17697 ¶ 94.

<sup>22</sup> *Id.*

<sup>23</sup> *Id.* at 17701 & n.168.

providers offering 4/1 service and those providing slower, 3/768 service.<sup>24</sup> Thus, consumers in many Census blocks shown as “served” do not actually have access to broadband service satisfying the Commission’s 4/1 benchmark; and at the same time service providers cannot use CAF Phase I funds to provide 4/1 service in those areas.

This illogical outcome ultimately disserves those who live in these areas. Fortunately, the Commission can easily remedy this harm by raising the proxy to 6 Mbps downstream and 1500 kbps upstream, and by requiring providers accepting CAF Incremental Support to limit the use of those funds to areas they certify do not already receive 4/1 service. This adjustment would better meet the goals of CAF Phase I funding.

### **CONCLUSION**

The existing process for reviewing and correcting National Broadband Map data is insufficient, standing alone, to identify areas eligible for CAF Phase I Incremental Support. CAF Phase I will not achieve its full potential for spurring rapid broadband deployment to unserved areas unless support recipients have access to a standardized, effective, and fair process for challenging coverage claims that inaccurately identify areas as already being served. Moreover, the Commission should move toward identifying eligible areas based on data that reflects the Commission’s actual broadband speed standards rather than using a slower proxy. In the meantime, the Commission should raise the proxy to ensure that all actually unserved areas are eligible for CAF Incremental Support.

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<sup>24</sup> *Id.*

Respectfully submitted,

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Its Attorneys

January 9, 2013

## Appendix A – Census Block Review Methodology

This paper describes the methodology and procedures used by CenturyLink to develop a list of unserved and partially served Census blocks for the Commission to add to the list it released on December 10, 2012.

Starting with a shape file of Census blocks within CenturyLink wire centers, Census blocks with zero population and zero households were removed. Population and households were determined based on the fields POP10 and HOUSING10<sup>1</sup> included in the Census block shape files acquired from the Census Bureau. *Further referenced as Layer 1.*

A layer file was prepared from the National Broadband Map shape files<sup>2</sup> where the MAXADDOWN was greater than or equal to 5, the MAXADUP was greater than or equal to 3, the TRANSTECH was less than or equal to 71 (xDSL, Copper Wire, Cable Modem, Fiber and Fixed Wireless) *and* not equal to 60 (Satellite), and the FRN (FCC Registration Number) was not equal to **0018626853** (CenturyLink's FRN). This is the area served by non-CenturyLink fixed providers at speeds of greater than or equal to 3 Mbps down and 768 Kbps up. *Further referenced as Layer 2.*

A layer was prepared from the National Broadband Map shape files where MAXADDOWN was greater than or equal to 5, the MAXADUP was greater than or equal to 3, and the FRN is equal to **0018626853**. The areas served by providers other than CenturyLink were removed to create a resulting area where only CenturyLink broadband is available at speeds of greater than or equal to 3 Mbps down and 768 Kbps up. *Further referenced as Layer 3.*

Next, Census blocks entirely served by broadband (except for CenturyLink) according to the shape files from the National Broadband Map were identified as SERVED. LAYER 1 within LAYER 2.

The Census blocks entirely served by CenturyLink broadband, and no other fixed provider, according to the shape files from the National Broadband Map were identified as CTL ONLY SERVED. *LAYER 1 within LAYER 3.*

From the remaining Census blocks, those which intersected the area served by broadband (except for CenturyLink) according to the shape files from the National Broadband Map were identified as PARTIALLY SERVED. *LAYER 2 intersects<sup>3</sup> LAYER 1.*

From the remaining Census blocks, those which intersected the area served by broadband (only CenturyLink) according to the shape files from the National Broadband Map were identified CTL PARTIALLY SERVED. *LAYER 3 intersects<sup>4</sup> LAYER 1.*

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<sup>1</sup> <http://www.census.gov/geo/www/tiger/tgrshp2010/popshp.html>

<sup>2</sup> US Dept of Commerce, National Telecommunications and Information Administration, State Broadband Initiative (SHP format December 31, 2011).

<sup>3</sup> We eliminated the instances where a Census block is primarily SERVED, UNSERVED, or CTL ONLY SERVED, but with a small portion in another category. If 95% of a PARTIALLY SERVED, CTL PARTIALLY SERVED, or BOTH SERVED Census block was SERVED, UNSERVED, or CTL ONLY SERVED, the Census block was re-identified as such.

From the Census blocks identified as PARTIALLY SERVED, those which *also* intersected the area served by broadband (only CenturyLink) according to the shape files from the National Broadband Map were identified as BOTH PARTIALLY SERVED. *LAYER 1 intersects LAYER 2 and LAYER 3.*

The remaining (*LAYER 1*) unidentified Census blocks were identified as UNSERVED.

This process resulted in a list of 194,952 Census blocks identified into the following categories:

<b>Category</b>	<b>Census Blocks</b>
BOTH PARTIALLY SERVED	16,328
CTL PARTIALLY SERVED	14,074
CTL ONLY SERVED	146,472
PARTIALLY SERVED	5,143
UNSERVED	12,935
<b>Grand Total</b>	<b>194,952</b>

Appendix B lists these Census blocks which the Commission should add to the list of unserved Census blocks that it released on December 10, 2012.

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<sup>4</sup> *Ibid*