

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**SUITE 350
121 SEVENTH PLACE EAST
ST. PAUL, MINNESOTA 55101-2147**

Nancy Lange	Chair
Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie Sieben	Commissioner
John Tuma	Commissioner

In the Matter of the Petition of CenturyLink QC
to be Regulated Pursuant to Minnesota Statute
§ 237.025; Competitive Market Regulation

DOCKET No. P-421/AM-16-496
DOCKET No. P-421/AM-16-547(HSTS)

**REPLY BRIEF
OF THE DEPARTMENT OF COMMERCE**

Dated: March 23, 2017

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I. INTRODUCTION

On June 30, 2016, CenturyLink QC (CenturyLink) filed a petition seeking to be regulated pursuant to Minn. Stat. § 237.025, subd. 4 (1) (2016). CenturyLink petitioned for relief in 108 (later corrected to 109) exchanges of its 115 exchanges in Minnesota.¹ For 32 of the wire centers², CenturyLink witness Mr. Nelson provided a study of wireless providers. Nelson Aff. Ex. 2. In almost all of the exchanges, CenturyLink based its analysis on the availability of service from cable franchisees, and in a handful of exchanges, on “other wireline” broadband providers. CenturyLink sought relief in 154 wire centers, and cable franchisees are reported by CenturyLink to be the identified competitor in the overwhelming majority -- 147 of these 154 -- wire centers.

This Reply Brief supports, but will not repeat, the Department’s concerns regarding issues previously discussed in the Department’s Initial Brief.

II. ARGUMENT

A. CENTURYLINK BEARS THE BURDEN OF PROVING TO THE COMMISSION’S SATISFACTION THAT THE STATUTORY CRITERIA HAVE BEEN MET.

Although it would be reasonable for the Commission to find that the statutory criteria are satisfied in a significant number of exchanges, the burden to show that the competitive criteria of Minn. Stat. § 237.025 subd. 4 have been met in every exchange is on CenturyLink, the petitioning local exchange carrier. Minn. Stat. § 237.025 subd. 5. Placing the burden on CenturyLink in this proceeding comports with the well-established rule that the telephone utility

¹ As noted in the Department’s Initial Brief, CenturyLink did not request market based regulation in six wire centers/exchanges where the central office is located in another state and the customers served by that central office are in Minnesota.

² In some of the 109 exchanges, there is more than one wire center.

has the burden of proof “with respect to all issues of material fact” and proof is required by a “preponderance of the evidence.”³

CenturyLink has had several opportunities to provide a reasonable record that would allow the Commission to reach a decision based on facts, rather than on speculative assumptions, but CenturyLink’s Initial Brief is replete with instances where CenturyLink attempts not to explain the reasonableness of the record it made, but instead to shift the burden of proof to the Department in response to the Department witnesses’ concern that the record provides an inadequate basis for a reasonable decision.

For example, as will be discussed further herein, CenturyLink expressed concern that its petition not overstate the percentage of CenturyLink-served households in three exchanges in Northern Minnesota—Cook, Tofte, and Grand Marais.⁴ CenturyLink feared that some lines in those exchanges might serve vacation housing, not household-occupied properties, which would have the effect of making the numerator of the “fifty percent” test too great. CenturyLink’s proposed solution to this problem was a convoluted adjustment, not of the numerator, but of the denominator, and the proposed adjustment was based on speculation.⁵ CenturyLink’s Initial Brief at 12 advocated this manipulation of the denominator of the fifty percent test, and attempted to shift the burden of proof to the Department, mischaracterizing the Department’s criticism as “the Department’s proposed adjustment,” which CenturyLink urged the Commission

³ *In re AT&T Communications of the Midwest, Inc.’s Petition for Arbitration with Contel of Minnesota, Inc. d/b/a GTE Minnesota under Section 252(b) of the Federal Telecommunications Act of 1996*, Order Resolving Arbitration Issues and Opening Cost Proceeding, MPUC Docket P-442, 407/M-96-939, p. 5 (December 12, 1996) (“1996 GTE Arbitration Order”).

⁴ CenturyLink Initial Brief at 9-10.

⁵ DOC Initial Brief at 20.

to reject. CenturyLink could instead have looked into its own business records, identified the suspect vacation housing, and properly adjusted the numerator of the fifty percent test.

This is but one example. The CenturyLink Initial Brief has many more. The Commission should hold CenturyLink to its burden of proof, not rely on proposed speculative assumptions, and base its decisions on actual facts and reasonable interpretations of the law.

B. CENTURYLINK HAS NOT SATISFIED THE “FIFTY PERCENT TEST” IN ALL EXCHANGES BY DEMONSTRATING IT SERVES FEWER THAN 50 PERCENT OF HOUSEHOLDS.

As was discussed in the Department’s Initial Brief and in Ms. Gullikson’s Affidavit at ¶¶ 23-25, the “fifty percent” ratio of CenturyLink-served households to total households in each exchange is:

$$\frac{\text{Households served by CenturyLink}}{\text{Total households}}$$

CenturyLink’s Petition understated the numerator and overstated the denominator of this ratio. As discussed in the Department’s Initial Brief, CenturyLink understated the numerator in all exchanges by omitting home-based business, UNE-P and resale lines.⁶

As noted above, CenturyLink overstated the denominator in Tofte, Cook, and Grand Marais with a proposed convoluted adjustment to the denominator that was based on speculation and disregard of the statutory requirement that the Commission determine the percent of “households” served⁷, and not housing units. From its own records, CenturyLink easily could have accounted for the seasonally-disconnected⁸ and seasonally-suspended lines,⁹ and lines for

⁶ The CenturyLink Initial Brief at 13 erroneously states that CenturyLink is prohibited from contacting UNE-P and resale customers. This is incorrect.

⁷ DOC Initial Brief at 20.

⁸ The CenturyLink line count already omits seasonally disconnected lines, because the count was taken in December, 2015. Lubeck Aff. ¶ 6.

⁹ Seasonally suspended lines are charged a reduced monthly rate identified by a unique universal service ordering code or other unique account-identifying feature that causes a rate adjustment.

which the service and billing addresses differed in a manner to disclose lines that serve a Tofte, Cook, or Grand Marais service address for a subscriber who maintains his or her primary residence and mailing/billing address elsewhere. Instead, CenturyLink's Initial Brief at 12 continues to advocate the unsupported inflation of the denominator of the fifty percent test by using housing units. The Department recommends that the Commission not accept CenturyLink's proposal, because the Company should have taken steps to reasonably adjust the numerator of the fifty percent test to account for lines not used by households.¹⁰

C. THE PETITION SHOULD NOT BE GRANTED WITH RESPECT TO EXCHANGES WHERE CENTURYLINK FAILED TO DEMONSTRATE SATISFACTION OF THE 60 PERCENT TEST OF MINN. STAT. § 237.025.

There are substantial flaws in CenturyLink's Petition with respect to the supporting documents and the methodologies CenturyLink used to demonstrate it meets the sixty percent test of Minn. Stat. § 237.025. When these flaws are accounted for, CenturyLink fails to meet its burden to establish the statutory requirements in numerous specific additional wire centers.

1. CenturyLink Has Inflated the Numerator of the 60 Percent Test In Cable Franchisee-Served Exchanges, Where CenturyLink's Methodology Inappropriately Fails to Use Publicly-Available Data Regarding Cable Franchises.

The CenturyLink Initial Brief at 16 states that "CenturyLink does not have direct knowledge of where exactly competitors offer service," and it implies, erroneously, that such data is not available. The CenturyLink Initial Brief presses the Commission not to require CenturyLink to provide actual facts to identify households who can actually choose to receive service from a competitive service provider (CSP), but to acquiesce to CenturyLink's methodology, which "rounds up" from "one household" being served by a competitor to "all

¹⁰ The Department has requested in discovery, but has not received at this writing, information that would be needed to make such an adjustment.

households” being served in any census block in which one competitor-served household is identified. The Initial Brief also proposes that CenturyLink porting data be used to “estimate” households’ access to competitive voice services.

Both the porting estimates and the “rounding-up” methodology are unreliable. CenturyLink’s own expert took pains to explain that porting data should not be relied on.¹¹ And, as was discussed in the Department’s Initial Brief,¹² CenturyLink materially overstates households’ ability to choose voice service from a competitor because, as to cable and wireline telephone service, one cannot reasonably infer, from the fact that a census block is classified as “served,” in Form 477 information, that because *one* household is served, that *all* households in that block can choose voice service from a wired CSP.

As noted above, CenturyLink’s Initial Brief claimed that cable franchisees are CSPs in the vast majority of its exchanges; CenturyLink attempted to demonstrate the existence of cable CSPs in 147 of the 154 wire centers. The plainly inappropriate “rounding up” that CenturyLink engaged in makes this methodology far more prejudicial than helpful to the Commission as it considers whether to grant or deny CenturyLink’s petition in each exchange in which a cable franchise service area exists. This is particularly true in smaller, less densely populated exchanges, where census blocks are larger.

The better approach is to use public franchise data. The precise number of households that can be served in each exchange by a cable CSP is easily established because cable companies are regulated as franchisees by state law (Minn. Stats. Ch. 238) and by municipal

¹¹ Lubeck Aff. ¶ 37 (Mr. Lubeck states, “When reviewing this data, the Commission should bear in mind that *number portability data is of limited or no value in determining whether CenturyLink has met the statutory criteria at issue in this case.*” (Emphasis added))

¹² Department Initial Brief at 28.

ordinances/franchise agreements. By law, cable franchisees must build out facilities and offer service to all locations of a franchisor municipality¹³ within five years of entry into a franchise, and the cable franchisee may not simply extend its facilities and service to additional households into the countryside surrounding a franchise service area without a written franchise arrangement with that adjacent jurisdiction.¹⁴ Further, when constructing its facilities throughout a municipality, cable companies cannot engage in “redlining” or other illegal discrimination that might otherwise create pockets of unserved neighborhoods within a franchise service area.¹⁵

The existence of franchise agreements/ordinances in CenturyLink exchanges is publicly-available factual data. Census data showing the number of households in each franchisor municipality is also readily-available public data.¹⁶

For example, in the Bird Island/Olivia exchange, CenturyLink reported on AL-2, AL-4 and AL-10 that there were a total of 1966 households in the exchange. There are two municipalities in the exchange, Bird Island and Olivia. The Census Bureau’s “American Community Survey” (ACS) reports that the households in the cable franchise-served municipalities of Bird Island and Olivia totaled 1435 in 2015. The ACS allowed a margin of

¹³ Minn. Stat. § 238.17 notes that the municipalities can band together to create a “core service unit” that negotiates on behalf of a group of municipalities. For ease of the reader, this brief uses the common term “municipality” to refer to franchisors.

¹⁴ Minn. Stat. § 238.084 states that all franchise ordinances must require that construction throughout the authorized franchise area must be substantially completed within five (5) years of the granting of the franchise and expiration date of the extension permit are coincident with that of the franchise of the core service unit. Further, in Minnesota, typically cable facilities are placed in the public right of way, and access to the public right of way is a topic addressed in the franchise ordinance. The franchise agreement/ordinance, for example, between the city of Minneapolis and CenturyLink to operate a cable system in Minneapolis is published online at: https://www.municode.com/library/mn/minneapolis/codes/code_of_ordinances?nodeId=APXHM ICACOFR_CH2CATEFRAGBEMIMIQWBRSEINDBCE_S1SCFR_1.2FRAR

¹⁵ Minn. Stat. § 238.23

¹⁶ The American Community Survey (ACS) reports demographic data between the decennial censuses. <https://factfinder.census.gov>

error¹⁷ that could put the actual number of households served by the cable franchise in 2015 as low as 1325, or 60.6 percent of total households in the exchange, a number materially smaller than the 74.92 percent that CenturyLink “estimated” using its “rounding up from one to all” methodology and its “centroid” method to assign households to census blocks. Further, the ACS data shows that the population of these municipalities has been declining at a rate totaling about 15 per cent between the 2010 census and 2015 ACS report of households. (Bird Island went from 473 households to 411 during that time; the number of households in Olivia dropped from 1178 households in 2009 to 1024 in 2015). Based on these facts, it is reasonably likely that at present, (March 2017) the percentage of cable-served households in the shrinking municipality is less than 60 percent of the households in the exchange overall, and falling.

Because CenturyLink has the burden of proof, and could have provided the actual number of households who can choose service from a cable franchisee in the 147 exchanges where CenturyLink reported cable competition, but did not do so, the Department urges the Commission not to grant the Petition based exclusively on CenturyLink’s “rounding up” methodology in exchanges as to which the Commission lacks confidence that the criteria are satisfied. Although it is reasonable for the Commission to find that the statutory criteria are satisfied in a significant number of exchanges, in many other exchanges, CenturyLink’s method of rounding from “one” to “all” households appears to unreasonably inflate the existence of competitive voice service, and actual facts are needed.

¹⁷ Although the ACS explicitly discloses that its count of households are subject to a specified margin of error for each community in each year, CenturyLink did not disclose that the percentages of households it reported were subject to an explicit margin of error large enough for CenturyLink’s reported estimate to make the difference between passing and failing the 60 percent test.

The Commission may wish to determine that the statutory criteria have been satisfied in larger, more dense, urban exchanges where the Commission may have confidence that cable franchisees provide service throughout the exchange, while rejecting the petition for exchanges as to which the Commission is not confident that the criteria are satisfied because competition is less likely to be available to 60% of the household in the exchange. As with the Olivia/Bird Island exchange, less densely populated and rural parts of an exchange should not be presumed to be covered by a cable franchise. In the cable franchisee-served exchanges, where achievement of the sixty percent test reasonably is in doubt, the Commission should determine the CenturyLink has not met its burden of proof.

To assist the Commission, the Department provides herewith a modified version of Mr. Lubeck's Ex. AL-10 spreadsheet. It should be noted that, other than the column showing indoor wireless coverage, all the numbers regarding "competitor-served households" on the modified AL-10 are CenturyLink's numbers, derived using its "rounding" methodology. While that method unreasonably overstates households' ability to choose service from a CSP, the modified AL-10 nevertheless shows comparisons between exchanges, such as total households per exchange, and the names/locations of exchanges, so the Commission has a tool for reviewing the CenturyLink petition, including information on which are the larger, more-dense urban exchanges vs. the smaller, less-densely-populated exchanges. The Commission also can identify the CenturyLink exchanges, by using the Minnesota Exchange map, located at: <http://minnesota.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a61fe43236994d43b097d439befb8e70>

2. Other Problems With CenturyLink’s Evidence and Arguments Regarding the Sixty Percent Test.

To succeed on the Petition, CenturyLink must demonstrate to the Commission’s satisfaction that more than 60 percent of the households in each of its exchanges can choose voice service from a CSP.

a. CenturyLink Inappropriate Aggregated Wireline-Served Households.

As was discussed in the Department’s Initial Brief, a CSP is either a wireless provider or, as defined in Minn. Stat. § 237.025 subd. 1 (a) (2): “any other provider...who owns...the last-mile or loop facilities delivering *service to a majority of households* in an exchange service area.” CenturyLink’s method for counting wireline CSP-served households, using its “rounding up” methodology, is inconsistent with this statutory definition. CenturyLink has presented no data from which the Commission can determine that each of the competitors, to which CenturyLink points, actually owns facilities delivering service to more than half (a “majority”) of the households in each exchange at issue.

CenturyLink’s method fails not only because it rounded up “one served household per block” to “all households per block,” but because CenturyLink *aggregated* providers in each exchange to reach the 60 percent target. For example, the CenturyLink Initial Brief at 36 discusses the Holdingford exchange, which Mr. Nelson found did not meet the 60 percent criterion as to indoor wireless service,¹⁸ compelling CenturyLink to make its case based on wireline service. In the view of the Department, it did not do so. As shown in Lubeck Affidavit AL-4 and AL-10, CenturyLink reported 930 households in the exchange, of which (based on its

¹⁸ The CenturyLink Initial Brief at 22 states, in the first full paragraph, that wireless services are available indoors “... with the exceptions being Biwabik,... Sandstone, and Staples.” The Department notes that Sandstone was referenced in error; Holdingford is among the exceptions, not Sandstone.

“rounding up” method of counting) only 383 (or 41.1 percent) are in census blocks where at least one household can choose service from a cable franchisee. Setting aside the erroneous assumption that all households in a census block can choose service and 41.1 percent being insufficient to meet the sixty percent standard, CenturyLink aggregates this estimate of 383 cable-served households with an estimated 189 (or 20.3 percent) households located in census blocks where a household is served by an “other wireline” provider, to conclude that a total of 572 households, or 61.5 percent of the households are in census blocks where a competitor serves a household. In other words, CenturyLink aggregates the served-household count estimates of two small companies to try to show that a statutory CSP exists. This is not what the statute contemplates; robust competition does not necessarily follow when a company like CenturyLink faces much smaller competitors.

The same situation exists in Glenville. There, to try to meet the sixty percent showing, CenturyLink aggregated the number of “rounded up” households in census blocks where two small “other wireline” companies served a household. CenturyLink reported 768 total households in the exchange, and that 368 (or 47 percent) were in census blocks where a rural Co-op served a household, and that 330 households (or 43 percent) were in census blocks where a customer was served by Jaguar Communications. CenturyLink aggregated these estimated numbers to conclude that 69 percent of households in the exchange could choose from a CSP. Neither the Co-op nor Jaguar are a CSP, however, because neither is a “provider...who owns...the last-mile or loop facilities delivering *service to a majority of households* in an exchange service area.”

b. CenturyLink Has Not Accounted for CAF II Funding in Claimed CSP-Served Areas.

CenturyLink's Initial Brief at 24 cites Mr. Lubeck's claim that Form 477 information is the best available data to show competitive situations, as shown by the FCC's reliance on it to disburse subsidies to carriers like CenturyLink. As discussed in the Department Initial Brief, CenturyLink is the intended recipient of \$54 million to build facilities to "unserved" locations in the exchanges that are the subject of the Petition, as to which CenturyLink claims there is sufficient competition to meet the sixty percent test. CenturyLink's Initial Brief disregards the obvious concern raised by Ms. Gullikson that locations cannot simultaneously be both served and unserved, and that CenturyLink should explain the situation. The CenturyLink Initial Brief at 24 does not explain, but merely points to the Lubeck Affidavit ¶ 31 for the notion that it is "possible" that CenturyLink is receiving CAF II funds in areas of wireless-only competition. CenturyLink's Initial Brief, like its evidence as a whole, has provided no explanation or accounting regarding the locations for which it has received, or that are eligible for, CAF II support.

CAF II funding¹⁹ determinations are relevant to considerations of the current petition, because locations that have been awarded CAF II support have been the subject of an FCC determination that there is not at least one location in the census block currently being served by an unsubsidized competitor. The FCC's determination of CAF II support is based on data filed by incumbent local exchange carriers, such as CenturyLink QC, in Form 477 filings.²⁰ "An area is classified as 'eligible' if the average monthly cost-per-location for that census block, as calculated by the cost model, is above the \$52.50 funding benchmark but below the \$198.60

¹⁹ The Connect American Fund (CAF) is a high cost program that subsidizes telecommunications in rural and remote areas throughout the country.

²⁰ https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-54A1.pdf

“extremely high cost threshold” (EHCT) census block list, and is not served by an unsubsidized competitor, subsidized wireline competitor, or was not subject to specific types of bids in the rural broadband experiments.”²¹ Consideration of CAF II funding locations is important to the current docket because CenturyLink alleges that wireline competition exists in certain exchanges where the FCC recently determined that no unsubsidized wireline competitor exist in the relevant exchange.

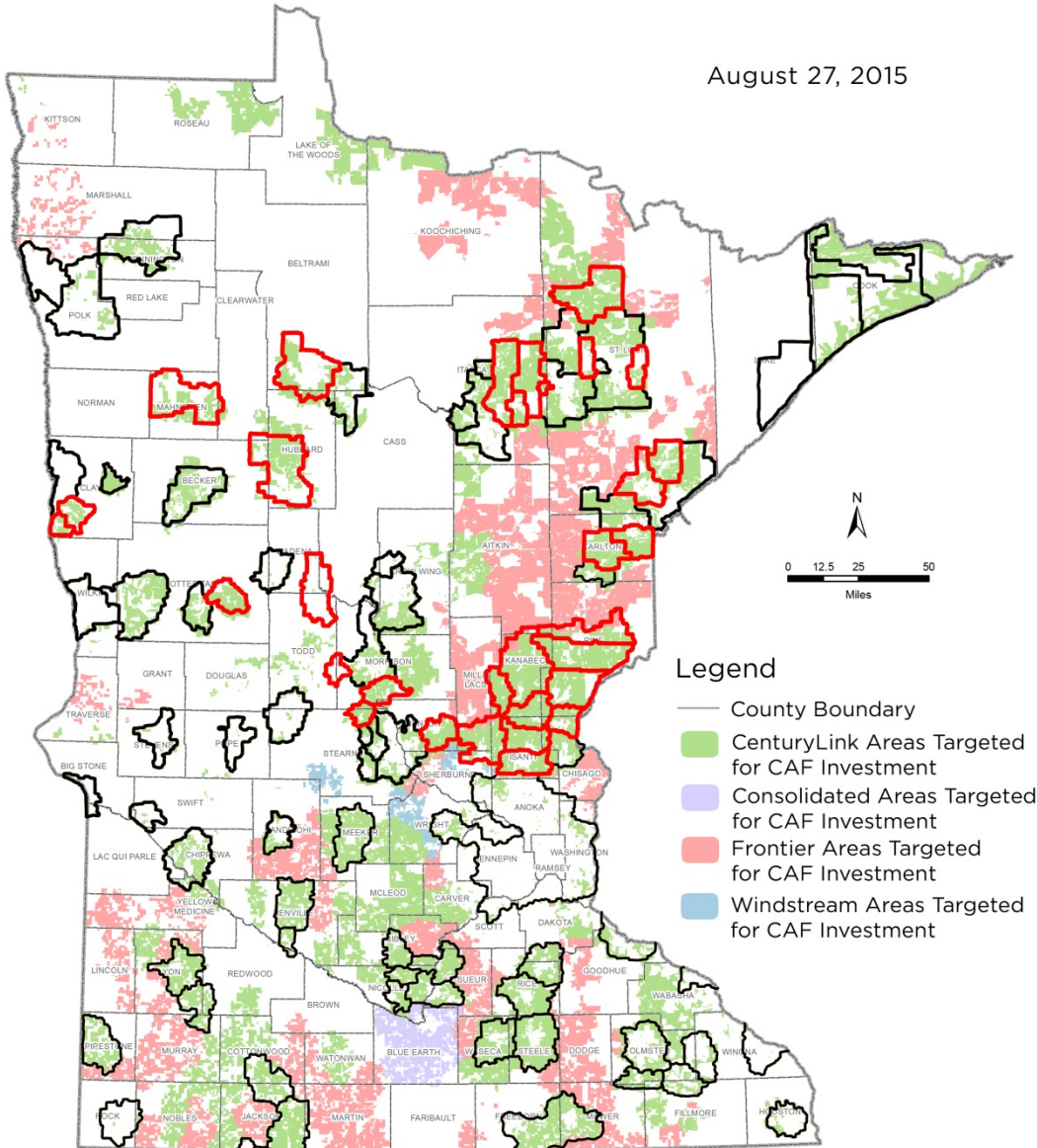
The below map²² shows green areas for which CenturyLink (and its affiliates, CenturyTel and Embarq) receives CAF II subsidies. The wireless study areas of the Petitioner, CenturyLink QC, are encircled in red. The other CenturyLink QC exchanges are encircled in black. It is apparent that the Petitioner receives CAF II funds to build facilities to unserved locations in exchanges where CenturyLink’s Petition claims that cable and “other wireline” CSPs, as shown by the FCC’s Form 477 information, provide sufficient competition to satisfy the sixty percent test.

²¹ <https://www.fcc.gov/reports-research/maps/fcc-connect-america-phase-ii-final-eligible-areas-map/>

²² Published at <http://www.connectednation.org/fcc-maps>

Connect America Fund Phase II Build-Out Commitments

August 27, 2015



Carrier	Housing and Business Locations in Targeted Areas	Annual CAF Investment
CenturyLink	114,739	\$54,035,150
Consolidated	4,266	\$2,516,502
Frontier	46,910	\$27,551,363
Windstream	4,440	\$1,519,855

As noted in the Department’s Initial Brief, CenturyLink has the burden of proof, and CenturyLink’s failure to address the substantial CAF II funding it is receiving, in exchanges for

which CenturyLink claiming the presence of CSPs, creates a gap in the Company's support for its Petition, which it should have addressed. Gullikson Aff. ¶ 63.

c. It Is Improbable That CenturyLink Under-Estimated Households Served by Wireline CSPs.

CenturyLink's Initial Brief at 24-25 speculates that it is "possible" that the Form 477 data on unserved locations underestimates the presence of cable and wireline competitors, based on the supposition that wireline providers might have a legal obligation to serve even greater numbers of households than CenturyLink claims. CenturyLink's line of reasoning is that these providers are generally telecommunications carriers, and as such, CenturyLink hypothesizes, some providers might have tariffs with service territories greater than the entire-census-block approach proposed by CenturyLink, and a household in these enlarged territories may have a "legal right" to purchase service under such a tariff.

This reasoning is not sound. First, with respect to the cable companies CenturyLink identified in 147 of the 154 wire centers, telephone service is only offered to customers in the same foot print where the cable company is franchised to provide cable service.²³ The CenturyLink Initial Brief at 25, citing the Lubeck Second Affidavit at ¶ 27, urges the Commission to rely on CenturyLink's claim that, if a cable franchisee offers voice services to a household "in a wire center" then the Commission can find that all households in the wire center can obtain voice service from a CSP. This was discussed in the Department's Initial Brief at 24, however, it is addressed here specifically to note that CenturyLink's assumption, that cable franchisees can offer service throughout wire centers is not accurate; their service areas are limited to the jurisdiction of the franchisor municipality.

²³ Further, at least some cable companies do not agree they are telecommunications providers offering residential service. See, Investigation of Charter Comm., MPUC Docket No. 14-383.

Second, as to the 26 “other wireline” CSPs CenturyLink has identified in its Petition, CenturyLink has offered no evidence to show that the situation that CenturyLink hypothesizes might somewhere exist, in fact, does. There are relatively few “other wireline” exchanges;²⁴ CenturyLink could easily have reviewed those companies’ publicly available tariffs and presented actual facts to support its claim, if any such facts existed. It did not.

Third, even if this hypothetical situation was proven to exist, the “legal right” of a prospective customer to insist that a provider build out its facilities upon demand does not necessarily mean that the requesting household “can choose voice service” from a CSP if the cost of the build-out is unreasonably costly. As CenturyLink is well aware, such build-outs can be unreasonably costly; as the carrier of last resort in its exchanges, CenturyLink has sought in the past to charge prospective customers hundreds of thousands of dollars to build facilities to an unserved location.²⁵ The new statute, Minn. Stat. § 237.025, should not be read to mean that a household “can choose” a CSP if the cost to obtain service is so exorbitant and unreasonable that it effectively precludes any actual competition by the alternative provider.

And fourth, CenturyLink has not demonstrated that it has excluded from its counts of “CSP-served households” those who receive service from a provider that, in part or all of its

²⁴ Lubeck Affidavit Exs. 8, 9 and 10 identify 26 “other wireline” companies throughout the Minnesota exchanges on which CenturyLink relies to establish the sixty percent test in whole or part; as discussed above, however, some of these companies are not CSPs. In 14 of the exchanges in which CenturyLink identifies an “other wireline” provider, it also identifies a cable franchisee that CenturyLink’s “rounding up” method shows to satisfy the sixty percent test.

²⁵ *In the Matter of Requests for Service in Qwest’s Tofte Exchange*, MPUC Docket No. P-421/CP-00-686 Order issued January 17, 2006 (Following a citizen complaint, an appeal by CenturyLink of the Commission’s Order to the Court of Appeals, and a contested case proceeding, CenturyLink proposed to construct facilities to an unserved location in the Tofte exchange, upon payment by prospective subscribers of an “up-front” fee of approximately \$4,800 each, so long as at least fifty residents agreed to the fee (a total charge of \$240,000). The residents declined the offer).

service area, offers service using UNE-P or resale finished services, which means those services are not those of a CSP. It appears to the Department that most of the companies identified by CenturyLink on AL-9 as “other wireline” are companies that have been certified by the Commission to be competitive local exchange carriers (CLECs), not incumbent LECs (ILECs); as such, they are entitled to obtain CenturyLink UNE-P and resale finished services (which are leased finished services, not “owned facilities”). The fact that such a company may be authorized to provide service to an entire CenturyLink exchange, does not establish that it provides services with its own last mile facilities, as Minn. Stat. § 237.025 requires. It could do so through either resale or UNE-P, which are not “owned” facilities of a CSP, but finished services of CenturyLink. CenturyLink provided no direct evidence that CL excluded UNE loops (or wholesale). While Mr. Brigham acknowledged the existence of UNE-P, he did not attempt to modify the counts to adjust for this. Brigham Aff. ¶16. Mr. Lubeck acknowledges the need for providing last mile facilities, but did not address the matter further. Lubeck Aff. ¶13. It is reasonable to find that if an ‘other’ facilities based wireline provider uses UNE-P or wholesale resale lines in part or all of an exchange, CL did not remove those counts from the households CenturyLink claims the CLEC serves.

The Commission should reject CenturyLink’s hypothesis that it is “possible” that rounding up methodology underestimates the presence of cable and wireline competitors. This hypothesis is not supported by facts; it is inconsistent with the law to the extent it seeks to eliminate cost as a factor having any relevance to whether a household can choose voice service from a CSP. Plainly, the “rounding up” from “one” to “all” households overestimates rather than underestimates the presence of cable or other wireline CSPs.

d. It Is Inaccurate To Assume, As CenturyLink Does, That A Household Not Served by CenturyLink Is Served by A CSP.

The CenturyLink Initial Brief, at 17-20 contends that the Commission can safely assume that every household not served by CenturyLink must be served by a CSP. On page 19 of its Initial Brief, CenturyLink crafted a chart listing census counts of households in certain exchanges and the corresponding CenturyLink line counts²⁶ in those exchanges. The fifth column is calculated as the difference between total households counts and CenturyLink-served households per exchange. What CenturyLink omitted from its exercise in subtraction is any accounting for lines not served by a CSP. It quotes its own witness on the preceding page (page 18) of CenturyLink's Initial Brief, who explained that CenturyLink's porting records suggest a material (and HSTS) percentage of CenturyLink numbers are ported out to providers who do not qualify as CSPs. At minimum, the fifth column of the chart on page 19 should be reduced by that percentage, to make the chart more closely correspond to the testimony of Mr. Lubeck in, for example, his AL-4 or AL-10.²⁷

e. The Commission Should Not Adopt CenturyLink's Proposal to Aggregate Estimated Competitive Wireless and Wireline "Coverage."

On page 20 of its Initial Brief, CenturyLink notes the Center for Disease Control's 2015 survey, which found that almost half of Minnesota households use both wireless and landline phones, meaning that, for these households, these two services are not substitutes, but complementary. CenturyLink nevertheless appears to casually suggest that the Commission could somehow aggregate estimates of wireless and wireline lines, as though they are used in a

²⁶ The chart also erroneously manipulates the denominator of the fifty percent test for Cook, Tofte and Grand Marais, which, as discussed above and in the Department Initial Brief at 21-22, the Department opposes, as an adjustment not supported by facts.

²⁷ These numbers, of course are based on CenturyLink's rounding up approach, which is a second reason for the Commission not to rely on them.

mutually exclusive manner, with some households having one type of service, and other households the other, but when added together, the sixty percent test could be met. Not only would such a methodology be inconsistent with the CDC study, it invites abuse of the statutory requirement that, to be a CSP, wireline providers must deliver service to a majority of households. Especially in rural areas, it is important to avoid “double-counting” certain households, who may have two or more competitive services, such as a wireless phone for use when away from home, as well as a home landline, while other households -- those that are more rural and expensive to serve -- have neither service available as a competitive option, but are limited to CenturyLink’s “provider of last resort” landline service.

It is unclear whether CenturyLink is suggesting that the Commission attempt to aggregate wireline and wireless competition for purpose of the sixty percent test; but, in any event, such an effort cannot be reliably undertaken on the present record.

f. CenturyLink Knowingly Proposed the Commission Mis-Apply Form 477 Data.

It is noteworthy that the CenturyLink Initial Brief did not address the concern identified by Ms. Gullikson in her Affidavit, in which she demonstrated that CenturyLink refuses to respond to prospective subscribers’ complaints seeking CenturyLink service on grounds that Form 477 data does not reliably show where service is available. The consumer complaint Ms. Gullikson described shows that CenturyLink is well aware that Form 477 data cannot be used in the manner it proposed here. Gullikson Affidavit Attachment 8. How a company weighs or values information at times when it is acting in its own interest can be informative to regulators when attempting to impose a regulatory scheme as a substitute for market regulation. The Department recommends that the Commission treat the Form 477 data as having no greater

reliability than CenturyLink knows it to have, as shown by the Gullikson Affidavit, Attachment 8.

D. CENTURYLINK’S INADEQUATE SUBSCRIBER NOTICE.

The Notice provided by CenturyLink to its subscribers informing them of this proceeding and its impact upon them, in the view of the Department, was a misleading and deceptive description of the impact subscribers will experience in those areas where its Petition is approved. Specifically, the notice to customers stated: “If the Commission approves the application, CenturyLink may raise its local service rates by a maximum of \$2.00 per month after January 1, 2018, and by an additional \$2.00 per month after January 1, 2023.” The Department recommends that for any exchange where the Commission finds that CenturyLink has met its burden to satisfy the statutory criteria to qualify for market regulation, CenturyLink should be held to what it has provided in its notice to customers on how they will be affected upon such approval.

The Department understands and agrees with the recommendation of the Office of Attorney General’s Initial Brief at 18, where it recommends that subscribers be provided a reasonable notice of the impact of this proceeding. The Department also notes that, while it is appropriate for customers to know the impact of whatever the Commission Orders, an after-the-fact notice is not adequate by itself to allow customers to provide input to the Commission before it reaches its decision.

E. THE MODELING PROVIDED BY MR. NELSON SHOULD BE VIEWED AS AN UPPER BOUND.

Mr. Nelson stated that his analysis looked solely at one of 15 frequency bands licensed by Verizon and/or AT&T in the State of Minnesota. Mr. Nelson offered no analysis to suggest that other frequencies are even sufficient to provide a signal. Mr. Nelson observed that other

companies offer service in these areas using different frequency bands as well (for example Sprint and T-Mobile), but did no analysis for any other company or frequency band to support any inference that if these companies' services were analyzed, it could have impacted his conclusions.

Mr. Legursky recommended that the modeling used by Mr. Nelson be viewed as an upper bound since no explanation was provided for selection of model inputs and whether the purpose of the model is consistent with the purpose of the Commission in this proceeding. The CenturyLink Initial Brief at 21 appears to attempt to respond to Mr. Legursky, arguing that the coverage analysis from the FCC Form 477 wireless information is "conservative" in a number of respects. These arguments are not persuasive.

First, the CenturyLink Initial Brief at 21 argues that the coverage analysis from the FCC Form 477 information is "conservative" because it analyzes the area in which wireless *data* services are available through a wireless network." This argument is not supported; that is, CenturyLink provided no factual information on wireless data services to analyze or support their use in any significant way.

Second, the CenturyLink Initial Brief at 21 argues that the coverage analysis from the FCC Form 477 information is "conservative" because, while the speed available from such a network can vary, "it is generally agreed that a wireless network offers many multiples of the speed required for a voice call. It *stands to reason* that maps depicting such coverage understate the coverage available for a voice call." (emphasis added.)

There is no support for this argument in CenturyLink's testimony. Furthermore, contrary to the CenturyLink Initial Brief, "speed" is only one aspect of the characteristics of a voice call. The most significant characteristic is "delay." Voice telephony is very sensitive to any delay in

the network. The high speeds are used by data, video and audio (which is music, as opposed to voice) to carry the faster signals (more bandwidth) required for them. As any wireless user of these services knows, these services can all be buffered for multiple seconds if required, as in the case where a phone moves through a ‘dead area’ caused from multipath reflections, as was explained by Mr. Legursky’s Affidavit at 3. When this occurs on a voice call, the call may drop (or the user may hang up as they hear nothing and think the other person has dropped or hung up.)

Other services (video, data, and audio streaming) solve this problem by putting several seconds of music, for example, in memory (a buffer) before they start playing. The data can come in bits and pieces and no problems occur unless the buffer “runs dry.” Voice cannot do this. It must transmit in “real time.” The signal must be continuously delivered to the receiver as it is spoken by the sender – it cannot be buffered for seconds before being transported across the network. So, in reality, the higher speed provided cannot be used as a factor to support the idea that CenturyLink’s analysis is “conservative.”

Third, the CenturyLink Initial Brief at 21 claims that CenturyLink’s wireless coverage analysis is “conservative” because “the lowest coverage in any wire center is 94%, well above the standard in the Statute.” This is plainly inaccurate. The Nelson First Affidavit at Table 5 shows many exchanges well below 94 percent as calculated by the model, and many were well below 60 percent, both indoors and outdoors. Indeed, Mr. Nelson’s analysis shows the 94 percent estimate to be inaccurate.

Fourth, the CenturyLink Initial Brief at 21 argues that CenturyLink’s coverage analysis information is “conservative” because Mr. Nelson’s study, which describes the availability of

wireless service in the 800 MHz frequency, one of fifteen frequencies available to provide service in Minnesota, is, as CenturyLink characterizes it, “decidedly conservative.”

This is not an accurate characterization. Mr. Nelson obtained publicly available information from the FCC regarding wireless voice providers in Minnesota. He noted in his First Affidavit that, in several frequency bands, the FCC grants licenses to commercial providers on an area-wide basis, and does not require that providers report individual transmit locations. The Broadband Personal Communications Service (PCS) (1800/1900 MHz range) and Advanced Wireless Services (AWS) (1700/2100 MHz range) are examples of spectrum for which providers can obtain area-wide licenses from the FCC. Thus, location-specific technical information on individual cell sites in these bands is not available in publicly-available federal databases. Nelson First Affidavit at 6. For this reason, the frequencies for the available licenses in Minnesota studied by Mr. Nelson are at or above the 800 MHz bands.²⁸ Lubeck First Affidavit, Table 1.

This means that most, if not all, of the 15 frequencies to which the CenturyLink Initial Brief refers at 21 are in the same band or in the higher 1700/1900/2100 MHz bands. CenturyLink’s evidence did not provide the exact locations of any towers that would support those additional frequencies, but the tower locations can generally be inferred to be the same as the locations of the towers Mr. Nelson studied because municipalities, which have zoning authority and control of rights of way, typically require carriers to “reuse” towers, often resulting

²⁸ The only exception is two lower 700 MHz bands. Lubeck First Affidavit, Table 1. These bands are spectrum that “recovered” when broadcast TV went to digital, which are shared with public safety users. While the licenses have been purchased, little of that spectrum is in commercial use.

in multiple carriers using the same towers.²⁹ So it is reasonable for the Commission to conclude that at least some of the additional frequencies available to consumers would be provided from the same towers as were studied by Mr. Nelson. Two conclusions can be drawn from this set of facts: (1) if the additional carriers use the *same* towers at the *same* frequency, 800 MHz, no additional coverage can be assumed; and (2) if the additional carriers use the *same* towers at the *higher* frequency bands, then coverage from the “unstudied” carriers is less than calculated by Mr. Nelson’s model, because RF propagation is better at lower frequencies – the frequencies used by Mr. Nelson in this model.³⁰ The only circumstance where coverage could be greater than shown in Mr. Nelson’s study would require cell towers to be at locations that the ones studied are *not* and that they serve an area that is now not served. Given municipal ordinances and the fact that towers tend to be located very close to one another for business reasons, this is unlikely to occur.³¹

²⁹ For example, *see* the city of Edina, Minnesota Ordinance, Section 34-70 Location and screening, 2E of the Edina Ordinance states: “It is the intent of this provision to encourage collocation of telecommunications facilities on the same tower or on existing buildings or other structures thereby reducing the number of towers in the city.”) published at: www.municode.com/library/mn/edina/codes/code_of_ordinances?nodeId=SPBLADERE_CH34TE

See also, the city of Bloomington, Minnesota ordinance, which is similar: Chapter 19: Zoning, Article V Performance Standards, Section 19.63.05 Towers, (2)(c)(1) states: “1) A proposal for a new commercial wireless telecommunication service tower shall not be approved unless the City Council finds that the telecommunications equipment planned for the proposed tower cannot be accommodated on an existing or approved tower or building within a one mile search radius (one half mile search radius for towers under 120 feet in height, one quarter mile search radius for towers under 80 feet in height) of the proposed tower due to one or more of the following reasons...” <https://www.bloomingtonmn.gov/selected-ordinance-provisions-pertaining-towers>

³⁰ CenturyLink Response to DOC IR No. 57 (CenturyLink stated that, “[i]f all other parameters at the cellular sites were equal, such as antenna type, antenna height, transmit power level, etc., it would be expected that higher frequencies would not propagate as well as lower frequencies (i.e., the coverage would not be as good), based on the principle of free space loss.)

³¹ A first tower constructed is typically put in the best possible location; the second typically would not be as good. Subsequent carriers are trying to serve the same customers in the same locations with the same terrain. They have two choices: build new towers in second choice locations or “attach” to existing towers in prime locations.

In short, the CenturyLink Initial Brief is incorrect; Mr. Nelson’s study was *not* “decidedly conservative” and the CenturyLink Initial Brief’s other coverage analysis is neither conservative nor reliable.

The Department anticipates that its witness, Mr. Legursky, will be available to respond to any questions or concerns the Commission may have regarding CenturyLink’s wireless study and coverage claims.

III. SUMMARY OF DEPARTMENT RECOMMENDATIONS

Although it would be reasonable for the Commission to find that the statutory criteria are satisfied in a significant number of exchanges, because CenturyLink has petitioned for market regulation in 109 exchanges, the burden to show that the competitive criteria of Minn. Stat. § 237.025 subd. 4 have been met in each of these 109 exchanges is on CenturyLink, the petitioning local exchange carrier. Minn. Stat. § 237.025 subd. 5. The Department recommends that, in light of the many errors, the Commission not approve the Petition in exchanges that either do not meet or marginally meet the criteria of Minn. Stat. § 237.025.

With respect to exchanges in which CenturyLink attempted to support its petition based on the cable franchise in those exchanges, where CenturyLink could have provided actual evidence but instead assumed entire census blocks are served based on CenturyLink’s “rounding up” methodology, the Commission may wish to determine that the statutory criteria have been satisfied in larger, more dense, urban exchanges where the Commission may have confidence that cable franchisees provide service throughout the exchange, while rejecting the petition as to exchanges where the Commission is not confident that the criteria are satisfied because competition is less likely to be available to 60% of the household in the exchange. Less densely populated and rural parts of an exchange should not be presumed to be covered by a cable franchise. In the cable franchisee-served exchanges, where achievement of the sixty percent test

reasonably is in doubt, the Commission should determine the CenturyLink has not met its burden of proof.

For the convenience of the Commission, the Department offers the following list of issues presented by the docket, together the Department's conclusions as to each.

ISSUES TO BE DECIDED

ISSUES TO BE DECIDED REGARDING THE "FIFTY PERCENT TEST" OF MINN. STAT. § 237.025.

Does CenturyLink serve fewer than 50 percent of the households in each of its exchange service areas?

- **The 50 Percent Test Numerator:**

1. Should CenturyLink have included, as CenturyLink-served households, the lines it sells to farmers and other home business operators who choose to subscribe only to a business line? *[DOC Recommendation: Yes, all households were to be included for any voice service provided by CenturyLink]*
2. Should CenturyLink have included, as CenturyLink-served households, households served by CenturyLink UNE-P or Resale Lines? *[DOC Recommendation: Yes]*
3. Has CenturyLink satisfactorily explained the differences between Messrs. Brigham and Lubeck's count of households served by CenturyLink? *[DOC Recommendation: No]*

- **The 50 Percent Test Denominator:**

4. In Four Wire Centers can the statutory term "household" be interpreted to mean "housing unit," such as a vacant property, cabin or other temporary structure? *[DOC Recommendation: No]*
5. In Four Wire Centers is there evidence to show that the count of CenturyLink-served households should be corrected as CenturyLink proposes, by adding to "total households" a percentage that that assumes that temporary occupants of housing units purchase CenturyLink service as frequently as households, or as the Department proposes by reducing the numerator to remove non-households? *[DOC Recommendation: The numerator should have been adjusted by removing non-households that are receiving service. The denominator is set by law.]*

ISSUES TO BE DECIDED REGARDING THE 60 PERCENT TEST OF MINN. STAT. § 237.025.

Can at least 60 percent of households in the exchange service area choose voice service from at least one additional unaffiliated competitive service provider?

- **The 60 percent numerator - Wired**

Did CenturyLink limit wireline CSP-served households consistent with Minn. Stat. § 237.025 subd. 1 (a)(2), to include only households served by a CSP, where a CSP is defined as a provider of local voice service who owns a substantial proportion of the last-mile or loop facilities delivering service to a majority of households in an exchange service area?

6. Voice Service: Do all competitive providers identified by CenturyLink offer voice service to all the households that CenturyLink counted in each exchange service area? *[DOC Recommendation: No. CenturyLink did not demonstrate that it included in the numerator only companies that offer voice service to all households in each exchange service area.]*
7. Facilities Ownership: Can the phrase, “owns...facilities” in Minn. Stat. § 237.025 subd. 1(a)(2) be interpreted to mean “leases...finished services”? *[DOC Recommendation: No.]*
8. Facilities Ownership: Does the evidence show that CenturyLink excluded from “competitor-served households” all households served by a CLEC that can provision in whole or part using leased UNE-P and resale finished services owned by CenturyLink? *[DOC Recommendation: No. CenturyLink did not show that it excluded finished services, which inflated “competitor-served households” and was further inflated by rounding up from “one” to “all” households in a “served” census block; it included all households in those blocks without regard to whether the CLEC or CenturyLink owns the available loop facilities].*
9. Deliver Service: Did CenturyLink include only households to which CSP facilities are available to enable the customer to choose the CSP service? *[DOC Recommendation: No. CenturyLink did not determine if service could be delivered; where a competitor delivered service to one household in a census block, CenturyLink rounded from “one” to “all” households in the census block, without regard to the competitor’s ability to deliver service.]*

10. To a Majority: Did CenturyLink exclude “competitor-served households” where a wireline provider does not serve a majority of households in the exchange? *[DOC Recommendation: No. CenturyLink inflated “competitor-served households” by rounding up from “one” to “all” households in a “served” census block; it then aggregated “competitor served households”(cable, other wireline, possibly wireless) served by companies that, according to this method, serve only a minority of households.]*

- **The 60 Percent Test Numerator – Wireless**

11. Deliver Service: Did CenturyLink include only households to which CSP facilities COULD deliver voice grade service indoors if requested to do so? *[DOC Recommendation: No. CenturyLink would like the Commission to approve those exchanges where 60% of the households have the ability to receive an outdoor signal.]*

12. “Marginal” Wireline Exchanges. Should the modeling provided by Mr. Nelson be viewed as an upper bound? *[DOC Recommendation: Yes.]*

- **The 60 Percent Test Denominator – Wireless**

13. Is the denominator of the sixty percent ratio understated in the Comstock and Nashwauk exchanges? *[DOC Recommendation: Yes.]*

- **The 60 Percent Test – Other**

14. Has CenturyLink provided evidence to show why competition should be found in exchanges for which it receives CAF II subsidies to build facilities to unserved locations? *[DOC Recommendation: No.]*

15. Did CenturyLink knowingly propose that the Commission mis-apply Form 477 information regarding unserved wireline census blocks to inflate the number of CSP-served households? *[DOC Recommendation: Yes.]*

- **Customer Notice:**

16. Should CenturyLink be held to the terms of the disclosure it provided in its notice to customers as to how customers will be affected upon any approval of the Petition in any exchange? *[DOC Recommendation: Yes.]*

CONCLUSION

The Department recommends that the Commission adopt decisions consistent with the Department's evidence, Initial Brief and this Reply Brief, and proposed Findings and Reply Findings.

Dated: March 23, 2016

Respectfully submitted

/s/ Linda S. Jensen

Linda S. Jensen
Assistant Attorney General
Atty. Reg. No. 0189030

445 Minnesota Street, Suite 1800
St. Paul, MN 55101-2134
Attorney for Minnesota
Department of Commerce

All Wire Centers Included in the Petition Showing Department of Commerce Concerns Where Fewer than 70% of Households are Served by Cable

CLLI	Wire Center	Exchange Service Area	Total Households	Number of Households to make a Majority ((Households/2)+1)	"Households with Cable Available from AL-4	% of Households with Cable	Households with Cable & Other Wireline Available	Households with Only Cable Voice Available	Households with Only Other Wireline Voice Available	Households served by largest other wireline provider	Households with Cable or Other Wireline Voice	% Households with Cable or Other Wireline Availability	Indoor wireless coverage from Nelson Ex. 2 Table 5	Met, Marginal, or Fail Wireline (60% test)	Comments	Meet, Marginal, or Fail CL serving < 50%
MPLSMNPI	MPLS PILLSBURY	MINNEAPOLIS	30,486	15,244	30,485	100.00%	2,148	28,337	-	-	30,485	100%				
DLTHMNAF	DULUTH HEMLOCK	DULUTH	11,577	5,790	11,576	99.99%	150	11,426	-	-	11,576	100%				
MPLSMNFS	MPLS FT SNELLING	MINNEAPOLIS	1,914	958	1,912	99.90%	-	1,912	-	-	1,912	100%				
BLTNMNCE	BLOOMINGTON CEDAR	MINNEAPOLIS	3,984	1,993	3,975	99.77%	-	3,975	-	-	3,975	100%				
STPLMNBE	ST PAUL BEECH	ST PAUL	27,764	13,883	27,686	99.72%	1,134	26,552	-	-	27,686	100%				
NWBTMNCL	CLEVELAND	ST PAUL	17,640	8,821	17,589	99.71%	1,149	16,440	1	-	17,590	100%				
MPLSMNBB	MPLS BRYANT	MINNEAPOLIS	24,281	12,142	24,207	99.70%	978	23,229	-	-	24,207	100%				
BRCTMNBC	BROOKLYN CENTER	MINNEAPOLIS	20,905	10,454	20,840	99.69%	1,007	19,833	2	-	20,842	100%				
STPLMNEM	ST PAUL EMERSON	ST PAUL	20,234	10,118	20,155	99.61%	3,456	16,699	-	-	20,155	100%				
DLTHMNE	DULUTH MELROSE	DULUTH	13,970	6,986	13,908	99.56%	187	13,721	-	-	13,908	100%				
MPLSMNTF	MPLS 24TH AVE	MINNEAPOLIS	28,668	14,335	28,518	99.48%	1,535	26,983	2	-	28,520	99%				
MPLSMNGE	MPLS CENTRAL AVE	MINNEAPOLIS	22,546	11,274	22,426	99.47%	1,798	20,628	3	-	22,429	99%				
EDPRMNGP	GLEN PRAIRIE	MINNEAPOLIS	19,897	9,950	19,791	99.47%	557	19,234	-	-	19,791	99%				
BLTNMNBSO	BLOOMINGTON SOUTH	MINNEAPOLIS	18,906	9,454	18,796	99.42%	2,388	16,408	88	-	18,884	100%				
DLTHMNDDB	DULUTH DOUGLAS	DULUTH	2,268	1,135	2,254	99.38%	12	2,242	-	-	2,254	99%				
HPKNMNHIO	HOPKINS	MINNEAPOLIS	26,280	13,141	26,113	99.36%	3,486	22,627	2	-	26,115	99%				
SHVWMNRI	SHOREVIEW-RICE ST.	ST PAUL	27,075	13,539	26,885	99.30%	3,024	23,861	4	-	26,889	99%				
BRVLMNBU	BURNSVILLE	MINNEAPOLIS	19,797	9,900	19,657	99.29%	4,270	15,387	29	-	19,686	99%				
NVRRMNNA	NAVARRE	NAVARRE	2,097	1,050	2,081	99.24%	-	2,081	-	-	2,081	99%				
WSPLMNWS	OAKDALE WEST	ST PAUL	31,285	15,644	31,022	99.16%	2,078	28,944	-	-	31,022	99%				
CRYSMNCR	CRYSTAL	MINNEAPOLIS	24,344	12,173	24,131	99.13%	1,687	22,444	88	-	24,219	99%				
STPLMNMI	ST PAUL MIDWAY	ST PAUL	23,770	11,886	23,561	99.12%	1,516	22,045	-	-	23,561	99%				
EXCLMNEX	EXCELSIOR	EXCELSIOR	12,524	6,263	12,405	99.05%	1,423	10,982	-	-	12,405	99%				
EDPRMNEP	EDEN PRAIRIE	MINNEAPOLIS	20,529	10,266	20,333	99.05%	942	19,391	-	-	20,333	99%				
RCFDMN66	MPLS 66TH ST	MINNEAPOLIS	19,569	9,786	19,360	98.93%	1,550	17,810	-	-	19,360	99%				
EAGNMNLB	EAGAN-LEXINGTON	EAGAN-LEXINGTON	30,724	15,363	30,330	98.72%	2,942	27,388	-	-	30,330	99%				
STPLMNMK	ST PAUL MARKET	ST PAUL	30,186	15,094	29,798	98.71%	1,944	27,854	-	-	29,798	99%				
MPLSMNBE	MPLS BEARD	MINNEAPOLIS	38,253	19,128	37,722	98.61%	1,326	36,396	-	-	37,722	99%				
STPLMNHBS	ST PAUL FRONT	ST PAUL	17,713	8,858	17,453	98.53%	1,137	16,316	-	-	17,453	99%				
MPLSMNPE	MPLS PENN	MINNEAPOLIS	10,026	5,014	9,875	98.49%	588	9,287	-	-	9,875	98%				
MPLSMNFR	MPLS FRANKLIN	MINNEAPOLIS	20,637	10,320	20,325	98.49%	2,155	18,170	-	-	20,325	98%				
MPWDMNMA	MAPLEWOOD	ST PAUL	35,945	17,974	35,315	98.25%	1,830	33,485	-	-	35,315	98%				
NSPLMNPR	PARK ROW	ST PAUL	24,518	12,260	24,069	98.17%	1,913	22,156	-	-	24,069	98%				
ANOKMNAN	ANOKA	ANOKA	31,088	15,545	30,514	98.15%	1,001	29,513	-	-	30,514	98%				
WBLKMNWB	WHITE BEAR LAKE	WHITE BEAR LAKE	26,931	13,467	26,415	98.08%	954	25,461	2	-	26,417	98%				
BLTNMNNO	BLOOMINGTON NORMAN	MINNEAPOLIS	11,366	5,684	11,148	98.08%	1,209	9,939	-	-	11,148	98%				
WYZTMNWA	WAYZATA	WAYZATA	15,839	7,921	15,497	97.84%	862	14,635	-	-	15,497	98%				
CNRPMNND	COON RAPIDS	MINNEAPOLIS	31,795	15,899	31,065	97.70%	433	30,632	-	-	31,065	98%				
MPLSMNDT	MPLS DOWNTOWN	MINNEAPOLIS	20,108	10,055	19,633	97.64%	2,281	17,352	1	-	19,634	98%				
CTGVMNCG	COTTAGE GROVE	ST PAUL	16,434	8,218	16,044	97.63%	1,130	14,914	-	-	16,044	98%				
PLMOMNFE	PLYMOUTH	MINNEAPOLIS	19,937	9,970	19,459	97.60%	2,632	16,827	-	-	19,459	98%				
GLVVMNOR	ORCHARD	MINNEAPOLIS	28,134	14,068	27,381	97.32%	1,589	25,792	-	-	27,381	97%				
BLANMNBL	BLAINE	MINNEAPOLIS	33,666	16,834	32,709	97.16%	855	31,854	-	-	32,709	97%				
ROCHMNRO	ROCHESTER	ROCHESTER	49,925	24,964	48,329	96.80%	2,424	45,905	166	-	48,495	97%				
NSSWMNNI	NISSWA	NISSWA	2,084	1,043	2,015	96.69%	1,489	526	30	-	2,045	98%				
MPLSMN07	MPLS 7TH AVE	MINNEAPOLIS	15,139	7,571	14,580	96.31%	1,014	13,566	296	-	14,876	98%				
WLMRMNWI	WILLMAR	WILLMAR	8,976	4,489	8,641	96.27%	225	8,416	46	-	8,687	97%				
SHKPMNSH	SHAKOPEE	SHAKOPEE	19,985	9,994	19,162	95.88%	3,181	15,981	85	-	19,247	96%				
FRDLMNFR	FRIDLEY	MINNEAPOLIS	12,381	6,192	11,871	95.88%	1,526	10,345	-	-	11,871	96%				
SDVLMNSO	SODERVILLE	ANOKA	10,670	5,336	10,179	95.40%	148	10,031	2	-	10,181	95%				
STCDMNTO	ST CLOUD	ST CLOUD	47,342	23,672	44,813	94.66%	31,783	13,030	2,097	-	46,910	99%				
WINOMNWI	WINONA	WINONA	13,605	6,804	12,875	94.63%	131	12,744	161	-	13,036	96%				
AFTNMNAF	AFTON	ST PAUL	9,570	4,786	9,024	94.29%	-	9,024	-	-	9,024	94%				

All Wire Centers Included in the Petition Showing Department of Commerce Concerns Where Fewer than 70% of Households are Served by Cable

CLLI	Wire Center	Exchange Service Area	Total Households	Number of Households to make a Majority ((Households/2)+1)	"Households with Cable Available from AL-4	% of Households with Cable	Households with Cable & Other Wireline Available	Households with Only Cable Voice Available	Households with Only Other Wireline Voice Available	Households served by largest other wireline provider	Households with Cable or Other Wireline Voice	% Households with Cable or Other Wireline Availability	Indoor wireless coverage from Nelson Ex. 2 Table 5	Met, Marginal, or Fail Wireline (60% test)	Comments	Meet, Marginal, or Fail CL serving < 50%
FRLKMNFL	FOREST LAKE	FOREST LAKE	9,447	4,725	8,871	93.90%	755	8,116	47		8,918	94%				
HAMLMNHB	HAMEL	HAMEL	3,481	1,742	3,252	93.42%	15	3,237	14		3,266	94%				
DLTHMNCB	DULUTH CALUMET	DULUTH	8,381	4,192	7,814	93.23%	103	7,711			7,814	93%				
STWRMNST	STILLWATER	STILLWATER	14,167	7,085	13,084	92.36%	92	12,992	51		13,135	93%				
RDFLMNRA	RED. FALLS-MORTON	RED. FALLS-MORTON	2,496	1,249	2,281	91.39%	2,060	221	83		2,364	95%				
ALLEMNAL	ALBERT LEA	ALBERT LEA	8,725	4,364	7,947	91.08%	3,688	4,259	625		8,572	98%				
EKRVMNER	ELK RIVER	ELK RIVER	14,140	7,071	12,870	91.02%	479	12,391	231		13,101	93%				
BFLMNBU	BUFFALO	BUFFALO	7,733	3,868	6,982	90.29%	267	6,715	103		7,085	92%				
MRSHMNMA	MARSHALL	MARSHALL	6,056	3,029	5,467	90.27%	5	5,462	46		5,513	91%				
OKGVMNOG	OAK GROVE	ANOKA	8,125	4,064	7,278	89.58%	246	7,032			7,278	90%				
TRFLMNTH	THIEF RIVER FALLS	THIEF RIVER FALLS	5,502	2,752	4,769	86.68%	16	4,753	115		4,884	89%				
RDWNMNRW	RED WING	RED WING	8,187	4,095	7,088	86.58%	6,710	378	426		7,514	92%				
HBNGMNHI	HIBBING	HIBBING	7,871	3,937	6,808	86.49%	18	6,790	12		6,820	87%				
DTLKMNDL	DETROIT LAKES	DETROIT LAKES	7,305	3,654	6,302	86.27%	2,962	3,340	380		6,682	91%				
AUSTMNAB	AUSTIN	AUSTIN	12,229	6,116	10,382	84.90%	112	10,270	734		11,116	91%				
OWTNMNOW	OWATONNA	OWATONNA	12,285	6,144	10,305	83.88%	5,823	4,482	350		10,655	87%				
GLWDMNGL	GLENWOOD	GLENWOOD	1,701	852	1,406	82.66%	34	1,372	86		1,492	88%				
NRFDMNNO	NORTHFIELD	NORTHFIELD	9,145	4,574	7,556	82.62%	1,796	5,760	690		8,246	90%				
BRNRMNBR	BRAINERD	BRAINERD	14,609	7,306	12,037	82.39%	11,501	536	2,368		14,405	99%				
MRRSMNMO	MORRIS	MORRIS	2,373	1,188	1,952	82.26%	1,952		419		2,371	100%				
VRGNMNV	VIRGINIA	VIRGINIA	7,141	3,572	5,859	82.05%		5,859	95		5,954	83%				
MTIRMNMI	MOUNTAIN IRON	MOUNTAIN IRON	471	237	382	81.10%		382			382	81%				
STJSMNSJ	ST JOSEPH	ST JOSEPH	3,207	1,605	2,543	79.30%	17	2,526	103		2,646	83%				
STVLMNST	STEWARTVILLE	STEWARTVILLE	3,204	1,603	2,539	79.24%	51	2,488	142		2,681	84%				
CKTNMNCR	CROOKSTON	CROOKSTON	3,752	1,877	2,968	79.10%		2,968	179		3,147	84%				
PPSTMNPI	PIPESTONE	PIPESTONE	2,313	1,158	1,829	79.07%	10	1,819	33		1,862	81%				
APPLMNAP	APPLETON	APPLETON	802	402	633	78.93%	84	549	109		742	93%				
SKCTMNCS	SAUK CENTRE	SAUK CENTRE	3,102	1,552	2,437	78.56%	135	2,302	222		2,659	86%				
WASCMNWA	WASECA	WASECA	4,754	2,378	3,720	78.25%	3,574	146	306		4,026	85%				
ORVLMNOR	ORTONVILLE-BIG STONE	ORTONVILLE-BIG STONE	1,138	570	882	77.50%		882	26		908	80%				
STPRMNSP	ST PETER	ST PETER	5,798	2,900	4,456	76.85%	3,324	1,132	197		4,653	80%				
LVRNMNLU	LIVERNE	LIVERNE	2,649	1,326	2,026	76.48%		2,026	23		2,049	77%				
MTVDMNMO	MONTEVIDEO	MONTEVIDEO	3,214	1,608	2,449	76.20%	50	2,399	110		2,559	80%				
GDRPMNGR	GRAND RAPIDS	GRAND RAPIDS	8,522	4,262	6,486	76.11%	5,447	1,039	1,409		7,895	93%				
FRFLMNFB	FERGUS FALLS	FERGUS FALLS	8,150	4,076	6,195	76.01%	6,175	20	1,573		7,768	95%				
HWLYMNHA	HAWLEY	HAWLEY	1,238	620	935	75.53%	31	904	64		999	81%				
AVONMNVO	AVON	AVON	1,106	554	833	75.32%	59	774	60		893	81%				
MOLKMNML	MOOSE LAKE	MOOSE LAKE	1,489	746	1,117	75.02%	156	961	53		1,170	79%				
CHSHMNCS	CHISHOLM	CHISHOLM	3,064	1,533	2,303	75.00%		2,303			2,303	75%				
FRBLMNFA	FARIBAULT	FARIBAULT	11,081	5,542	8,307	74.97%	8,052	255	906		9,213	83%				
OLIVMNOL	OLIVIA-BIRD ISLAND	OLIVIA-BIRD ISLAND	1,966	984	1,473	74.92%		1,473	9		1,482	75%				
WADNMNWA	WADENA	WADENA	2,795	1,399	2,049	73.31%		2,049	194		2,243	80%				
CLSPMNCB	COLD SPRING	COLD SPRING	2,622	1,312	1,901	72.50%	37	1,864	223		2,124	81%				
CLQTMNCA	CLOQUET	CLOQUET	8,565	4,284	6,119	71.44%		6,119	60		6,179	72%				
CLDNMNCA	CALEDONIA	CALEDONIA	1,877	940	1,336	71.18%	1,294	42	206		1,542	82%				
RCFRMNRO	ROCKFORD	ROCKFORD	2,961	1,482	2,105	71.09%	287	1,818	36		2,141	72%				
LTFLMNLF	LITTLE FALLS	LITTLE FALLS	5,950	2,976	4,202	70.62%	4,202		1,679		5,881	99%				
GYLRMNGA	GAYLORD	GAYLORD	1,178	590	827	70.20%	827		116		943	80%				
TRACMNTR	TRACY	TRACY	1,250	626	877	70.16%	8	869	94		971	78%				
SLBAMNSA	SILVER BAY	SILVER BAY	1,054	528	725	68.79%	696	29	125	816	850	81%				Marginal
WBSHMNWA	WABASHA	WABASHA	1,826	914	1,256	68.78%	1,219	37	431	1,650	1,687	92%				

The line below shows the wire centers on which the Department focused its specific concerns.

All Wire Centers Included in the Petition Showing Department of Commerce Concerns Where Fewer than 70% of Households are Served by Cable

CLLI	Wire Center	Exchange Service Area	Total Households	Number of Households to make a Majority ((Households/2)+1)	"Households with Cable Available from AL-4	% of Households with Cable	Households with Cable & Other Wireline Available	Households with Only Cable Voice Available	Households with Only Other Wireline Voice Available	Households served by largest other wireline provider	Households with Cable or Other Wireline Voice	% Households with Cable or Other Wireline Availability	Indoor wireless coverage from Nelson Ex. 2 Table 5	Met, Marginal, or Fail Wireline (60% test)	Comments	Meet, Marginal, or Fail CL serving < 50%
EVLTMNEV	EVELETH	VIRGINIA	3,500	1,751	2,386	68.17%		2,386	2	1,750	2,388	68%			part of Virginia exchange	
BTLKMNBA	BATTLE LAKE	BATTLE LAKE	1,409	706	953	67.64%	501	452	308	585	1,261	89%		Marginal	via cable	
STCHMNSC	ST CHARLES	ST CHARLES	2,619	1,311	1,762	67.28%	283	1,479	137	413	1,899	73%		Marginal	via cable	
LTFDMNLI	LITCHFIELD	LITCHFIELD	4,296	2,149	2,863	66.64%	2,715	148	255	2,889	3,118	73%		Marginal	via cable	
DLTHMNLA	DULUTH LAKESIDE	DULUTH	6,064	3,033	3,989	65.78%	5	3,984	755		4,744	78%			part of Duluth exchange	
LESRMNLS	LE SUEUR	LE SUEUR	2,528	1,265	1,659	65.63%	28	1,631	116	143	1,775	70%		Marginal	via cable	
HNNGMNHE	HENNING	HENNING	907	455	594	65.49%	48	546	147	102	741	82%	22%	Marginal	via cable	
HNVRMNH	HANOVER	HANOVER	1,295	649	825	63.71%	16	809	41	57	866	67%		Marginal	via cable	
CTFDMNCH	CHATFIELD	CHATFIELD	1,839	921	1,168	63.51%		1,168	18	18	1,186	64%		Marginal	via cable	
NBRNMN	NORTH BRANCH	NORTH BRANCH	5,408	2,705	3,432	63.46%		3,432	129	129	3,561	66%		Marginal	via cable	
PKRPMNPR	PARK RAPIDS	PARK RAPIDS	4,869	2,436	3,024	62.11%	601	2,423	1,650	2,054	4,674	96%	90%			
CHSTMNCH	BASS BROOK(COHASSET)	BASS BROOK(COHASSET)	1,374	688	812	59.10%	341	471	530	871	1,342	98%				
CMBRMNCA	CAMBRIDGE	CAMBRIDGE	6,200	3,101	3,546	57.19%	5	3,541		5	3,546	57%	87%			
NSHWMNNA	NASHWAUK	NASHWAUK	1,465	734	835	57.00%		835	4	4	839	57%	63%	Marginal	via wireless	Marginal
ISNTMNIS	ISANTI	ISANTI	5,183	2,593	2,775	53.54%		2,775	75	75	2,850	55%	68%	Marginal	via wireless	Marginal
MHNMMNMA	MAHNOMEN	MAHNOMEN	1,428	715	764	53.50%	422	342	111	422	875	61%	86%			
SPLSMNST	STAPLES	STAPLES	2,412	1,207	1,269	52.61%	68	1,201	242	167	1,511	63%	55%	Fails	cable not 60%, no other CSP	
SABNMNSA	SABIN	SABIN	658	330	337	51.22%		337	93	66	430	65%	24%	Fails	cable not 60%, no other CSP	
SNDSMN	SANDSTONE	SANDSTONE	1,337	670	682	51.01%	7	675	66	73	748	56%	89%			Marginal
FOLYMNFO	FOLEY	FOLEY	2,042	1,022	991	48.53%		991	154	88	1,145	56%	94%			
GDMRMNGM	GRAND MARAIS	GRAND MARAIS	1,463	733	705	48.19%	705		750	1,455	1,455	99%				Fails
PNCYMNPC	PINE CITY	PINE CITY	3,873	1,938	1,846	47.66%		1,846		-	1,846	48%	90%			Marginal
RSCYMNRC	RUSH CITY	RUSH CITY	1,947	975	912	46.84%		912		-	912	47%	91%			Marginal
DLTHMNPL	DULUTH PIKE LAKE	DULUTH	4,616	2,309	2,067	44.78%		2,067	1		2,068	45%	44%		part of Duluth exchange	
CLRNMNCO	COLERAINE	COLERAINE	2,200	1,101	936	42.55%	252	684	430	646	1,366	62%	76%			Marginal
HLFRMNCO	HOLDINGFORD	HOLDINGFORD	930	466	383	41.18%	53	330	189	196	572	62%	56%	Fails	No CSP	
BWBKMNBI	BIWABIK	BIWABIK	1,213	608	499	41.14%	35	464	5	40	504	42%	36%	Fails	No CSP	Marginal
PRTNMNPR	PRINCETON	PRINCETON	6,858	3,430	2,797	40.78%	579	2,218	382	897	3,179	46%	87%			
HNCKMNHI	HINCKLEY	HINCKLEY	2,054	1,028	833	40.56%		833		-	833	41%	96%			
BMDJMNBE	BEMIDJI	BEMIDJI	11,812	5,907	4,700	39.79%	2,291	2,409	4,205	6,496	8,905	75%	92%			
RYTNMNRN	ROYALTON	ROYALTON	1,327	665	447	33.69%	5	442	107	50	554	42%	97%			
BRHMMNBR	BRAHAM	BRAHAM	2,456	1,229	741	30.17%		741		-	741	30%	89%			
COOKMNCO	COOK	COOK	1,030	516	304	29.51%		304	16	16	320	31%	9%	Fails	cable not 60%, no other CSP	Fails
MORAMNMO	MORA	MORA	4,813	2,408	1,396	29.00%		1,396	41	41	1,437	30%	75%			Marginal
CRTOMN	CARLTON	CARLTON	1,631	817	464	28.45%		464		-	464	28%	65%	Marginal	via wireless	Marginal
CSSLMNCL	CASS LAKE	CASS LAKE	1,671	837	451	26.99%	404	47	1,028	1,368	1,479	89%				
BRNMMNBA	BARNUM	BARNUM	1,379	691	203	14.72%		203	1	1	204	15%	74%	Marginal	via wireless	
OGLVMNOA	OGILVIE	OGILVIE	948	475	130	13.71%		130	52	52	182	19%	92%			Marginal
BUHLMNBU	BUHL	BUHL	747	375	75	10.04%		75		-	75	10%	90%			
KEWTMNKE	KEEWATIN	KEEWATIN	518	260	39	7.53%		39		-	39	8%	100%			
MRBLMNMA	MARBLE	MARBLE	687	345	49	7.13%		49	8	8	57	8%	63%	Marginal	via wireless	
ISLKMNIL	DULUTH ISLAND LAKE	DULUTH	1,656	829	15	0.91%		15			15	1%	73%		part of Duluth exchange	
WNDMMNWI	WINDOM	WINDOM	2,593	1,298	7	0.27%	7		2,234	2,043	2,241	86%				
TOFTMNTB	TOFTE	TOFTE	440	221		0.00%			427	427	427	97%				Fails
FNLDMNFO	FINLAND	SILVER BAY	308	155		0.00%			270		270	88%			part of Silver Bay	Marginal
JCSNMNJA	JACKSON	JACKSON	2,174	1,088		0.00%			1,619	1,585	1,619	74%		Marginal	via other wireline	
GLVLMNGL	GLENVILLE	GLENVILLE	768	385		0.00%			528	368	528	69%		Fails	cable not 60%, no other CSP	
NCLTMNNC	NICOLLET	NICOLLET	670	336		0.00%			458	430	458	68%		Marginal	via other wireline	
SWVLMNSV	SWANVILLE	SWANVILLE	426	214		0.00%			61	47	61	14%	88%			Fails
CMSTMNCO	COMSTOCK	COMSTOCK	156	79		0.00%			13	8	13	8%	71%	Marginal	via wireless	