

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Complainant,

v.

THE CENTRUYLINK COMPANIES - QWEST CORPORATION; CENTURYTEL OF
WASHINGTON; CENTURYTEL OF INTERISLAND; CENTURYTEL OF COWICHE; AND
UNITED TELEPHONE COMPANY OF THE NORTHWEST

Respondent.

DOCKET UT-240029

**RESPONSE TESTIMONY OF DAVID BREVITZ, C.F.A.
ON BEHALF OF THE
WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL
PUBLIC COUNSEL UNIT**

EXHIBIT DB-1T

April 3, 2024

RESPONSE TESTIMONY OF DAVID BREVITZ, C.F.A.

DOCKET UT-240029

EXHIBIT DB-1T

EXHIBITS LIST

- Exhibit DB-2: Brevitz, Curriculum Vitae
- Exhibit DB-3: CenturyLink’s Response to UTC Staff Data Request No. 1-47(R)
- Exhibit DB-4: CenturyLink’s Response to Public Counsel’s Data Request Nos. 14-27(R) and CenturyLink’s 1st Supplemental Response to Public Counsel’s Data Request Nos. 21, 27(R)
- Exhibit DB-5: SEC Form 10-K, 2023 Annual Report
- Exhibit DB-6: Lumen-4Q23 Earnings Presentation Final
- Exhibit DB-7: Non-cable served Wire Centers
- Exhibit DB-8: CenturyLink’s Response to UTC Staff Data Request No. 56–57

LIST OF TABLES

Table 1	Deployed Quantum Fiber Cities.....	24
Table 2	Identified Low Count Fiber Provider Locations.....	30

1 **Q. Please state your name and business address.**

2 A. My name is David Brevitz, and my business address is 5804 W. 124th St.,
3 Overland Park, Kansas 66209.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am the principal at Brevitz Consulting Services where I perform independent
6 consulting services for state public utility regulatory commissions and other
7 agencies participating in matters before these commissions such as the Public
8 Counsel Unit.

9 **Q. On whose behalf are you testifying?**

10 A. I am testifying on behalf of the Public Counsel Unit of the Washington Attorney
11 General's Office (Public Counsel).

12 **Q. Please describe your professional qualifications.**

13 A. Over the course of my career in public utility regulation I have worked on
14 numerous telecommunications regulatory dockets. During my career, as the
15 telecommunications marketplace experienced competitive entry, there have been
16 numerous milestone regulatory events—beginning in the 1970's and 80's with
17 numerous dockets at the Federal Communications Commission to adapt to
18 emerging competition, passage of the Federal Telecommunications Act of 1996,
19 under which occurred the rise and fall of competitive local exchange carrier
20 (CLEC) competition for residential consumers, development of “one stop shop”
21 service bundles for consumers, emergence of the Internet, provision of broadband
22 access service by incumbent local exchange companies and CATV providers and
23 regulatory inquiries into regulatory classification of these services, deployment of
24 several generations of wireless mobile technology up to the present 5G, various
25 FCC actions including revamping the federal universal service fund and
26 intercarrier compensation, and ongoing partnerships, consolidations and
27 acquisitions, and dispositions in the telecommunications industry leading to
28 greater market concentration.

1 My academic work in public utility regulation began with elective
2 coursework at the Institute of Public Utilities at Michigan State University, and I
3 earned an undergraduate degree in Justice, Morality and Constitutional
4 Democracy from James Madison College (a residential college at MSU) and an
5 MBA in Finance from the Broad School of Business at Michigan State
6 University.

7 Following graduation, I started as an Economist for the Kansas
8 Corporation Commission (KCC). At that time long distance competitors were
9 emerging, and state utility commissions were addressing the Modified Final
10 Judgement under which AT&T divested itself of the Regional Bell Operating
11 Companies (the “Baby Bells”). I later served as Chief Telecommunications
12 Analyst for the KCC from late 1984 to early 1987.

13 As Chief Telecommunications Analyst I was responsible for all
14 telecommunications matters before the Commission, including addressing matters
15 after AT&T Divestiture such as implementation of access charges, certification
16 proceedings for new entrants, revenue requirements and rate design in
17 telecommunications company rate cases, addressing industry issues on a generic
18 basis, and oversight of quality-of-service standards and issues.

19 I then served for seven years as Director-Regulatory Affairs of Kansas
20 Consolidated Professional Resources (KCPR)—an organization serving Kansas
21 independent telephone companies. In February 1994, I began work as an
22 independent consultant in telecommunications, serving state utility commissions
23 and consumer counsels, as well as international regulatory bodies. As an
24 independent consultant I have addressed numerous cases and issues including
25 competition and deregulation, substitute services and intermodal competition,
26 quality of service, bundled services, access charges, price floors and imputation,
27 jurisdictional cost allocations including direct assignments, and requirements of
28 the Telecommunications Act of 1996 including competition, interconnection

1 requirements, resale, unbundled elements, TELRIC/cost studies, wholesale
2 quality of service standards, price cap/alternative regulation plans and Section 271
3 applications.

4 I have analyzed numerous spin off/merger transactions, and bankruptcy
5 proceedings in the telecommunications industry on behalf of state utility
6 commissions and consumer advocate organizations, beginning with Divestiture of
7 the Bell Operating Companies from AT&T, and including the Sprint spin-off of
8 Embarq in 2005, the Alltel spin-off of Windstream in 2006, the Verizon Northern
9 New England transaction with FairPoint in 2007, and the Embarq merger with
10 CenturyLink in 2008, the FairPoint bankruptcy proceeding and financial
11 monitoring beginning in 2009, and Consolidated Communications acquisition of
12 FairPoint in 2017.

13 I served as an expert witness for The Utility Reform Network (TURN) in
14 its review of Frontier Communications' purchase of Verizon California's
15 operations in 2015 before the California Public Utilities Commission (CPUC). I
16 provided expert testimony on Frontier's financial modeling of the proposed
17 acquisition, Frontier's risk profile, financing of the proposed transaction, and
18 Frontier revenues, competition and growth prospects. I provided similar services
19 for TURN before the CPUC regarding Frontier's application for approval of
20 bankruptcy reorganization in 2020.

21 I performed two Performance Audits of the Kansas Next Generation 911
22 (NG911) System for the Kansas Legislature in 2019 and again in 2023 which
23 among other things assessed the adequacy of the collection of 911 fees for the
24 transition to statewide Next Generation 911 capability, and adequacy of funding
25 for Public Safety Answering Points for 911 call handling operations.

26 As broadband internet access emerged as "the universal service",
27 replacing voice telephone service, in 2010 I began assisting public agencies with
28 broadband planning to extend and expand broadband infrastructure for consumers

1 and businesses. This work included two statewide broadband plans in the state of
2 Florida, supporting broadband mapping efforts for the Kansas Department of
3 Commerce, and numerous local government agencies as a subcontractor for
4 Magellan Advisors. Some of these local government agencies were in the state of
5 Washington, including Confederated Tribes of the Colville Reservation (2020),
6 Pierce County (2017), and several Public Utility Districts including Grays Harbor,
7 and Snohomish County.

8 As a result of these assignments, I have current expertise regarding
9 broadband internet access services, support mechanisms for universal service and
10 expansion of internet availability, wired and wireless telecommunications
11 services, competitive telecommunications markets, telecommunications company
12 spin offs and mergers, and regulatory issues in telecommunications. A more
13 detailed description of my background and experience in telecommunications and
14 utility regulation is provided on Exhibit DB-2.

15 **Q. Do you have other professional qualifications?**

16 A. Yes. In 1984, I was designated as a Chartered Financial Analyst by the Institute of
17 Chartered Financial Analysts (ICFA), which later became the CFA Institute. The
18 CFA Institute has defined and organized the body of knowledge for financial
19 analysts as including ethical and professional standards, accounting, statistics and
20 analysis, economics, fixed income securities, equity securities, and portfolio
21 management.

22 **Q. What is the purpose of your testimony in this proceeding?**

23 A. The purpose of this testimony is to respond to CenturyLink's Petition for
24 Competitive Classification and related exhibits filed before the Washington
25 Utilities and Transportation Commission (Commission) on January 8, 2024. In its
26 Petition, CenturyLink seeks statewide competitive classification for all five

1 CenturyLink incumbent local exchange carriers (ILECs)¹ under RCW 80.36.320
2 (“Classification as competitive telecommunications companies”). CenturyLink
3 claims it has shown that “each of the CenturyLink ILECs is subject to effective
4 competition in the *marketplace for voice communications* in Washington”.²
5 CenturyLink seeks this classification to be effective prior to the Commission’s
6 July 1, 2024, deadline³ for filing a revised Alternative Form of Regulation
7 (AFOR). In its Petition at paragraph 49, CenturyLink requests that the
8 Commission enter an Order in the AFOR Docket which in essence states the
9 AFOR to be filed by that date is either an AFOR plan agreed by the parties, or if
10 no agreed AFOR plan, then one proposed by CenturyLink. CenturyLink intends
11 the Commission’s grant of competitive classification for all CenturyLink ILEC
12 services statewide to terminate the AFOR docket going forward and obviate its
13 need to file an AFOR by the Commission’s deadline.

14 Accordingly, I will evaluate whether CenturyLink data and analysis
15 including the Competition Study presented in this matter as CenturyLink Exhibit
16 1 meets the burden to demonstrate that “each of the CenturyLink ILECs is subject
17 to effective competition in the marketplace for voice communications in
18 Washington” under the competitive classification statute (RCW 80.36.320) and
19 the Commission’s regulation (WAC 480-121-061) and whether the Commission
20 should consider “voice communications” to be a “relevant market” under the
21 statute.

¹ “CenturyLink” and “CenturyLink ILECs” is used interchangeably to refer to the five individual ILECs serving territory in the State of Washington—Qwest Corporation, CenturyTel of Washington, CenturyTel of Interisland, CenturyTel of Cowiche and United Telephone Company of the Northwest. “Lumen” or “Lumen unregulated affiliates” is used to refer Lumen Technologies subsidiaries operating in the State of Washington to provide telecommunications services on an unregulated basis, which include Broadwing Communications, LLC; CenturyLink Communications, LLC; Q Fiber, LLC; Global Crossing Local Services, Inc.; Global Crossing Telecommunications, Inc.; Level 3 Communications, LLC; Level 3 Telecom of Washington, LLC; and WilTel Communications, LLC. (Brevitz, Exh. DB-3 (see, Resp. No. 2)).

² CenturyLink’s Petition for Competitive Classification, ¶ 3, *emphasis added* (filed Jan 8, 2024) (hereinafter *CenturyLink’s Petition*).

³ *In re CenturyLink Companies AFOR Petition*, Docket UT-130477, Order 10 at 3 (July 27, 2023) (hereinafter *AFOR Docket*).

1 **Q. What exhibits are you sponsoring in this proceeding?**

2 A. I am sponsoring the following Exhibits.

- 3 • Exhibit DB-2, Brevitz, Curriculum Vitae
- 4 • Exhibit DB-3, CenturyLink’s Response to UTC Staff Data Request No. 1-
5 47(R)
- 6 • Exhibit DB-4, CenturyLink’s Response to Public Counsel’s Data Request
7 Nos. 14-27(R) and CenturyLink’s 1st Supplemental Response to Public
8 Counsel’s Data Request Nos. 21, 27(R)
- 9 • Exhibit DB-5, SEC Form 10-K, 2023 Annual Report
- 10 • Exhibit DB-6, Lumen-4Q23 Earnings Presentation Final
- 11 • Exhibit DB-7, Non-cable served Wire Centers
- 12 • Exhibit DB-8, CenturyLink’s Response to UTC Staff Data Request Nos.
13 56–57

14 **Q. Please summarize your testimony.**

15 A. The Commission cannot rely upon the conclusions presented by CenturyLink in
16 its competition study. I start my analysis with the applicable statutory factors in
17 RCW 80.36.320. In addition, I note the relevant factors from RCW 80.36.135, the
18 alternative form of regulation statute. Since CenturyLink is asking to move from
19 an AFOR to competitive classification, I find the AFOR provisions relevant to
20 any analysis of “effective competition.” For example, whether regulation is
21 needed to “facilitate the broad deployment of technological improvements and
22 advanced telecommunications services to underserved areas or underserved
23 customer classes” is necessarily embedded in the ability of alternative providers
24 to make functionally equivalent services at competitive rates. A theme of my
25 testimony is that in rural areas of Washington, the market is insufficient to
26 provide services to those underserved areas and that CenturyLink’s monopoly
27 over the physical infrastructure connections creates captive customers whose
28 complaints go unanswered.

1 I analyze the data in CenturyLink’s competition study and conclude that
2 the FCC “broadband serviceable locations” data on which it is based is not
3 sufficient to show that CenturyLink is subject to effective competition,
4 particularly in those rural areas. Whether a consumer has broadband choices at
5 their home or office is entirely location dependent. Broadband service is provided
6 via infrastructure investment and whether that infrastructure is there or not to
7 provide service is binary in nature—yes or no.

8 Under the FCC’s definitions and requirements, the broadband service
9 providers do not report locations where they are actually serving customers or
10 where they actually have facilities to the premise for purposes of the “broadband
11 serviceable locations”. Broadband serviceable location definition includes
12 “standard installation” intervals where the provider could provide service within
13 ten business days with no charges or delays. While a provider could deploy
14 infrastructure facilities to serve an unserved location, whether the provider would
15 actually do so depends on capital constraints, business plans and broader network
16 plans—it does not mean that the provider actually does have facilities to serve the
17 premise or that it actually will allocate capital and construction resources to do so.
18 A potential competitor cannot provide actual broadband service to a customer on
19 request.

20 Nor are estimates of wireless coverage sufficient to show that in rural
21 areas with poor actual propagation characteristics adequate to show effective
22 competition. As a result, CenturyLink’s competition study is not reliable to show
23 that real customers in rural Washington have actual access to broadband internet
24 access service alternatives—which is essential to have effective competition.

25 CenturyLink’s competition study is also flawed because CenturyLink
26 compares dissimilar data to reach its conclusions. Fundamentally, CenturyLink’s
27 landline voice services are not comparable to broadband internet with voice
28 service over the top as an application. Under a proper market definition

1 CenturyLink’s landline voice services and affiliated broadband services including
2 Quantum Fiber would be compared with those of other broadband providers in
3 Washington to assess market power and whether there are captive customers. But
4 CenturyLink has thus far refused to provide data sufficient to draw that
5 comparison.

6 Even assuming that these data issues can be resolved, CenturyLink’s
7 competition study is further flawed because it does not properly define the
8 “relevant market” in which the Commission must evaluate effective competition.
9 This error occurs in two dimensions—the geography and the service. First, the
10 competition study fails to recognize the difference, within Washington, between
11 rural and urban markets. A competition study that recognizes no distinction
12 between downtown Seattle in King County and Adams County by advancing a
13 statewide market is fatally flawed. Second, CenturyLink assesses the service
14 dimension with a flawed comparison of stand-alone voice service delivered via
15 outmoded copper network facilities versus broadband internet access service
16 based on the various types of technology employed by other broadband providers
17 CenturyLink defines as competitors. Even disregarding these flaws, looking at the
18 data presented regarding the actual broadband serviceable location numbers from
19 the historic competitor to ILEC services—cable—there are at least 74 CenturyLink
20 wire centers for which the claim of effective competition is dubious. While it is
21 not Public Counsel’s burden to identify the wire centers where effective
22 competition does not exist, this constitutes a rough estimate and point of
23 beginning for those wire centers which require more information before the
24 Commission could accurately determine whether CenturyLink faces effective
25 competition.

26 Finally, I conclude that CenturyLink’s proposed class of protected
27 customers is insufficient. Although CenturyLink’s attempt to create such a
28 definition is an admission that there are areas in Washington without effective

1 competition, CenturyLink’s competition study fails to adequately define the rural
2 areas in Washington where it is necessary to recognize a protected class. I
3 recommend that the Commission continue to require CenturyLink, under an
4 AFOR, to seek permission from the Commission before discontinuing or selling
5 exchanges in areas of Washington for which there is no reasonable alternative to
6 CenturyLink or its affiliates for broadband internet access service.

7 **Q. Please describe your understanding of what the “competitive classification”**
8 **statute RCW 80.36.320 requires in this proceeding.**

9 A. RCW 80.36.320 requires the Commission to classify a telecommunications
10 company as “competitive” “if the services it offers are subject to effective
11 competition.” “Effective competition means that the company’s customers have
12 reasonably available alternatives and that the company does not have a significant
13 captive customer base.”⁴ The statute lays out four factors which the Commission
14 must consider in its analysis but does not limit the Commission to considering
15 only those four factors.⁵ An analysis of “effective competition” requires the
16 Commission to define the “relevant market” and to define “functionally
17 equivalent or substitute services” to reach its conclusions.⁶ The Commission’s
18 rules implementing the competitive classification statute place the burden of proof
19 on the telecommunications company to demonstrate “that the company or specific
20 service(s) is subject to effective competition”.⁷ I will analyze CenturyLink’s
21 competition study data and analysis under the “four factors” which must be
22 considered to find “effective competition” to provide a recommendation to the
23 Commission whether CenturyLink has met its burden of proof to demonstrate that
24 each of the five CenturyLink companies “is subject to effective competition”.

25 **Q. How are the telecommunications services being considered in this**
26 **competitive classification proceeding delivered to the consumer?**

⁴ RCW 80.36.320(1).

⁵ RCW 80.36.320(1).

⁶ RCW 80.36.320(1).

⁷ WAC 480-121-061(4).

1 A. Telecommunications services are delivered over physical infrastructure. They are
2 not delivered, for example via Amazon. The ability to make or receive voice
3 telephone calls or transmit voice, video or data is dependent on the physical
4 infrastructure in place at the consumer’s premise. The functionally equivalent or
5 substitute services available to the consumer depends on physical infrastructure
6 which in turn depends on location. As will be explained later the presence or
7 absence of physical telecommunications infrastructure at individual consumer
8 premises has significant implications and importance for analysis of competitive
9 telecommunications alternatives and definition of “the market”.

10 **Q. Although CenturyLink is requesting competitive classification under RCW**
11 **80.36.320, are the factors for granting an AFOR under RCW 80.36.135**
12 **relevant?**

13 A. Yes. Logically, the Commission is considering whether to grant a continued
14 AFOR or to lift that existing AFOR regulation in favor of pure competitive
15 classification. The petition expressly acknowledges that CenturyLink’s request for
16 competitive classification is an alternative to continued regulation under an AFOR
17 as permitted by RCW 80.36.135 by requesting a close to the AFOR docket.
18 Moreover, by acceding to and proposing conditions for its request for competitive
19 classification, CenturyLink acknowledges that some continued regulation is
20 appropriate. Indeed, the AFOR statute as I understand it may be the more
21 applicable statutory provision—it identifies several factors that should be relevant
22 here.

23 One factor under the AFOR statute is the Commission shall consider
24 whether regulation would facilitate the broad development of technological
25 improvements and advanced telecommunication services to underserved areas or
26 classes. This should focus the Commission on how CenturyLink’s petition may
27 impact access to services in rural Washington where copper landlines often
28 provide the only reliable connection. Without an incentive to preserve service or

1 upgrade copper landlines to more reliable technologies including fiber optic
2 connections, the Commission must consider whether the market alone can operate
3 effectively in rural Washington to provide adequate service.

4 Another factor the AFOR statute requires the Commission to consider is
5 the impact on service quality and the requirement to protect against the
6 degradation of the quality or available *efficient* telecommunication services. Here,
7 it is not sufficient for CenturyLink to list competitors that *may* sell services in an
8 area; it has an obligation to show that there are efficient competitors in rural areas
9 of Washington. Also, CenturyLink has an obligation not to allow degradation of
10 the quality of service.

11 Third, the Commission must consider whether regulation can preserve the
12 development of effective competition and protect against the exercise of market
13 power. Under the current AFOR, this is accomplished by requiring CenturyLink
14 to obtain permission before discontinuing copper wire service in its wire centers.
15 In areas of Washington in which properly maintained landlines are the most
16 reliable communication technology, the Commission should consider whether
17 permitting CenturyLink to discontinue service without approval would give
18 CenturyLink excessive market power.

19 Fourth, under the AFOR statute the Commission must provide for rates
20 and charges that are fair, just, reasonable, sufficient, and not unduly
21 discriminatory or preferential. Under the current AFOR, this is accomplished by
22 capping rates for local residential service and capping annual increases that can be
23 implemented by CenturyLink.

24 In considering whether there is effective competition with reasonably
25 available “functionally equivalent or substitute services”⁸ as alternatives to
26 CenturyLink services, these AFOR factors are relevant.

⁸ RCW 80.36.320(1)(c).

1 **Q. Do the factors from RCW 80.36.320 and RCW 80.36.135 comport with**
2 **appropriate economic analysis for determining when regulation is no longer**
3 **necessary?**

4 A. Yes, the statutes comport with my understanding of economics and how you look
5 at effective competition. An economic analysis would start with defining the
6 appropriate market including the dimension of geography, then defining
7 substitutable and comparable products and who offers them. The generally
8 accepted view is that regulation is a substitute for competition and that where
9 competition exists, regulation should give way. Where, however, there are
10 barriers that prevent effective competition, regulation may be necessary to
11 achieve rational and efficient economic goals. In rural Washington, for example,
12 the limitations of radio propagation and the capital requirements for a physical
13 infrastructure make competition a poor mechanism for achieving universal
14 service.

15 **Q. Please describe the structure as you understand it of the competition study**
16 **presented by the CenturyLink ILECs.**

17 A. The Competition Study presented by CenturyLink as Exhibit 1 is based on the
18 FCC’s most recent Broadband Data Collection. The Broadband Data Collection
19 collects reports from internet service providers in which the providers individually
20 indicate each address its broadband service is or could be installed (in a “standard
21 broadband installation” as adopted in FCC rules⁹) for mass market, residential and
22 small business consumers, for fixed and mobile broadband services. As recited by
23 CenturyLink, one purpose of the Broadband Data Collection is to create “an
24 address-by-address map that ‘displays where internet services are available across

⁹ Broadband Deployment Accuracy and Technological Availability Act or the Broadband DATA Act, Pub. L. No. 116-130 (2020), <https://www.govinfo.gov/app/details/PLAW-116publ130>. Defines “standard installation” as “the initiation by a provider of fixed broadband internet access service [within 10 business days of a request] in an area in which the provider has not previously offered that service, with no charges or delays attributable to the extension of the network of the provider.”

1 the United States, as reported by Internet Service Providers (ISPs) to the FCC.”¹⁰
2 These are known as *broadband serviceable locations*.

3 Broadband coverage provided by wireless service is estimated by mobile
4 providers’

5 [G]enerat[ion of] the 3G, 4G LTE, and 5G-NR coverage areas
6 shown on the map using propagation modeling, where the models
7 include certain common settings for consistency. The coverage
8 areas are meant to represent the areas where a user should be able to
9 establish a mobile connection, *either outdoors or moving in a*
10 *vehicle*, and achieve certain upload and download speeds. Please
11 note that *the map does not include information on the availability of*
12 *mobile wireless broadband service while indoors*. Because the
13 coverage map is based on propagation modeling, *a user’s actual,*
14 *on-the-ground experience may vary due to factors such as the end-*
15 *user device used to connect to the network, cell site capacity, and*
16 *terrain*.¹¹

17 Furthermore, the coverage maps on mobile wireless service providers’ websites
18 may be based on different information and may differ from the National
19 Broadband Map information.¹²

20 CenturyLink states the study is granular in that it identifies locations in
21 each CenturyLink wire center in Washington where other telecommunications
22 providers have service “available” service via copper, fiber, cable, mobile
23 wireless, fixed wireless and satellite technologies. This includes provision of
24 Voice over Internet Protocol (VoIP) “telephone” service provided over broadband
25 internet access service as an application. CenturyLink uses this *broadband*
26 *serviceable location* data to provide, for example, computations that calculate the
27 percentage of locations in each wire center in CenturyLink’s service area that the
28 Broadband Data Collection data indicates have service “available” from various
29 broadband providers. Statewide percentages for each CenturyLink ILEC and for

¹⁰ Gose, Exh. PJG-7, referencing Broadband Data Collection Help Center, *What’s on the National Broadband Map*, FED. COMM’N COMM’N (Updated Nov. 30, 2023) <https://help.bdc.fcc.gov/hc/en-us/articles/13532984820379-What-s-on-the-National-Broadband-Map>.

¹¹ *Id.*, *emphasis added*.

¹² *Id.*

1 CenturyLink as a whole are presented in tables to support the statements such as
2 99.9 percent of households in CenturyLink’s service area have wireless service
3 available, and 86.2 percent of locations in CenturyLink’s service area have cable
4 broadband available,¹³ and to support various statements regarding CenturyLink’s
5 share of “voice connections” in the state of Washington. One such example is
6 “CenturyLink’s incumbent local exchange carrier operations now provide less
7 than 4% of the voice connections in Washington.”¹⁴

8 **Q. Does the location data from the Broadband Data Collection identify the**
9 **actual numbers of subscribers that each provider serves?**

10 A. No. This data says nothing about actual subscribership or how many consumers a
11 provider may serve in a particular wire center.

12 **Q. Is “availability” a determinative indicator of whether a consumer has**
13 **broadband service available at his or her home or office?**

14 A. No. The Broadband Data Collection and the National Broadband Map does not
15 distinguish between whether broadband service is *actually being provided* at a
16 particular premise, or whether a broadband provider has said it *could make*
17 *broadband service available* at that particular premise. Whether a consumer has
18 broadband choices at their home or office is location dependent. Broadband
19 service is provided via infrastructure investment and whether that infrastructure is
20 there or not to provide service is binary in nature—yes or no. While a provider
21 could deploy infrastructure facilities to serve an unserved location whether the
22 provider would actually do so depends on capital constraints, business plans and
23 broader network plans. Average calculations or lists of providers operating in a
24 state provide no guidance on whether a consumer has broadband available at their
25 home or office.

26 **Q. Can a consumer subscribe to broadband service from a potential**
27 **competitor?**

¹³ *CenturyLink’s Petition*, ¶ 16, Table 1.

¹⁴ *Id.*, ¶ 14.

1 A. No. A consumer can only subscribe to broadband service from a provider that
2 actually has broadband infrastructure facilities connected to or passing the home
3 or business. At best, the process for a provider planning to provide service can
4 take an extended period to actually build the facilities to provide the infrastructure
5 for service. Quantum Fiber for example explains “your five-stage journey to
6 fiber” in its “Fiber 101: What to expect when installing fiber in your multifamily
7 community”.¹⁵ While this is a fiber installation description for multifamily
8 communities the processes are a generic for fiber installation: field work and
9 engineering, site plans and schematics, submission of permit applications,
10 procurement of materials, construction to extend fiber to the area, onsite
11 construction, onsite implementation and activation. Quantum Fiber states “it takes
12 a minimum of 180 days on average”.

13 **Q. Is a study of current telecommunications competition in the State of**
14 **Washington based on “voice connections” likely to be useful to the**
15 **Commission for determining whether competitive classification should be**
16 **granted to CenturyLink on a statewide basis?**

17 A. My view is such a study is unlikely to be useful to the Commission without
18 refocusing on and including broadband internet access connections. The telephone
19 industry has made a long journey since the enactment of the competitive
20 classification statute in 1985,¹⁶ when voice telephone service was the “universal
21 service”. At that time, the telephone industry provided voice telephone services as
22 a monopoly to residential consumers through local exchange service, intrastate
23 and interstate long distance services for calling between exchanges and a variety
24 of custom calling services like call waiting, caller ID and voice mail, and
25 customers got telephone numbers from directory assistance of paper directories

¹⁵ Alice LaPlante, *Fiber 101: What to expect when installing fiber in your multifamily community*, QUANTUM FIBER (Feb. 27, 2023), https://explore.quantumfiber.com/what-to-expect-in-a-multifamily-community-fiber-installation/?_gl=1*1ivk7c6*_gcl_au*MTYyNzA1Mzc1Mi4xNzExNjM1NTE0&_ga=2.43921253.1126900508.1711983153-709182388.1711635533#dipipopup-3171

¹⁶ RCW 80.36.320, ch. 450, § 4 (1985).

1 published annually. The Bell System had been split up in 1984 by divestiture of
2 the “Baby Bells” from AT&T—which retained the long-distance business,
3 customer premise equipment (CPE) sales, equipment manufacturing and Bell
4 Labs. US West served as the incumbent LEC for most of the state of Washington.
5 The regulatory policy goal of universal service continued in the post-divestiture
6 era seeking expansion of the telephone network to reach 100 percent of
7 households and businesses via telephone connections for voice calling. The
8 prevalent technology for the “local loop” (outside plant between the customer’s
9 premise and the central office switch) was copper wire. Universal service funds
10 administered by state regulators and the FCC were designed to support telephone
11 network operation and investment to provide voice services on a universal basis.

12 This has all changed over time such that the “universal service” now is
13 broadband internet access capable of transmitting voice, video and data in digital
14 form. Telecommunications policy now strives toward the goal of bridging the
15 “digital divide” and providing broadband internet access connections to every
16 household and business. The FCC’s universal service fund has been revamped to
17 fund expansion of broadband internet access service to every unserved and
18 underserved location in the U.S. The FCC created the Connect America Fund,
19 froze then-existing high-cost program support at December 2011 levels and made
20 other changes “to transition universal service from focusing on voice networks to
21 supporting and expanding broadband availability.”¹⁷ Since that time as
22 CenturyLink also points out¹⁸ generational funding has been made available
23 devoted for infrastructure investment seeking to extend broadband internet access
24 to households and businesses on a universal basis. The FCC’s Connect America
25 Fund (CAF) Phase II support mechanism ran from 2015 to 2021 to support price
26 cap ILECs such as CenturyLink extending broadband service (10 Mbps down/1

¹⁷ Universal Service Administrative Co., *Frozen High-Cost Support*, <https://www.usac.org/high-cost/funds/legacy-funds/frozen-high-cost-support/> (last visited Mar. 21, 2024).

¹⁸ Direct Test. of Peter Gose, Exh. PJG-1T at 22.

1 Mbps up)¹⁹ in eligible areas. The FCC followed CAF II with a reverse auction to
2 award support for areas in which the price cap carriers did not elect the CAF II
3 funding. Then in 2018, the FCC established a further program—Broadband Loop
4 Support – to expand broadband deployment at speeds of 25 Mbps down and 3
5 Mbps upload or better.

6 More recently, the FCC has developed another reverse auction program—
7 the Rural Digital Opportunity Fund (RDOF)—to further expand broadband
8 deployment in areas lacking service requiring grant recipients to deploy service
9 with minimum speeds of 25 Mbps download and 3 Mbps upload. Also, as
10 described in the CenturyLink Petition and testimony²⁰ the most recent federal
11 broadband infrastructure program—Infrastructure Investment and Jobs Act—
12 provides \$42.45 billion in grant funding for investment in broadband
13 infrastructure under the Broadband Equity Access and Deployment program
14 which grants states are organizing to award and distribute. Finally, the
15 Washington Broadband Office seeks to leverage these federal efforts and funding
16 to improve broadband accessibility and adoption for unserved and underserved
17 communities and populations.²¹ *Therefore, reference to a “voice connections”*
18 *marketplace is an anachronism—the telecommunications marketplace and policy*
19 *makers focus on the broadband internet access marketplace as the “universal*
20 *service.”*

21 **Q. But doesn't the FCC require recipients of Rural Digital Opportunity Fund**
22 **funding for extending broadband infrastructure into unserved rural areas to**
23 **offer standalone voice service at rates reasonably comparable to urban**
24 **areas?**

¹⁹ Fed. Comm'n Comm'n, *Connect America Fund (CAF)*. <https://www.fcc.gov/general/connect-america-fund-caf> (last visited Apr. 1, 2024).

²⁰ See, *CenturyLink's Petition*, ¶ 27; Gose, Exh. PJG-1T at 23–24.

²¹ RCW 43.330.532.

1 A. Yes, providing a standalone voice service is a “public interest” requirement of
2 receiving RDOF funding. This requirement is driven more by law and policy than
3 marketplace demand. The FCC’s RDOF Report and Order²² ties this requirement
4 back to Section 254(c)(1) of the Communications Act of 1934 which gives the
5 FCC the authority to support telecommunications services which the Commission
6 has defined in its rules (47 CFR § 54.101) as “voice telephony service”. Requiring
7 provision of the supported service—voice telephony—per the Communications Act
8 allows the Commission to fund expansion of broadband infrastructure which
9 provides both voice and broadband internet access services. The further rationale
10 stated by the FCC for the requirement is the funding recipient “may be the only
11 ETC offering voice service in some areas and not all consumers may want to
12 subscribe to broadband service”.²³ This certainly could be true in some cases
13 since RDOF is available for the purpose of supporting construction of broadband
14 infrastructure in areas that do not have broadband available.

15 **Q. Please briefly describe the telecommunications industry transition to how**
16 **voice connections are provided in the current telecommunications**
17 **marketplace?**

18 A. When the competitive classification statute was passed, local exchange networks
19 technology typically consisted of two-wire copper pairs connecting residential
20 premises to an electronic or digital switch in urban/suburban areas, with fiber
21 optic cable beginning to be deployed in the long-distance network. The local
22 exchange network was being digitalized with digital switches and subscriber line
23 carrier systems to facilitate operational efficiencies and increasing transmission of
24 digital data. Over time, new technologies facilitated introduction of many new
25 services and capabilities such that the telecommunications network is now based
26 on fiber optic (“fiber-to-the-home”) or other high-capacity transmission media

²² *In re Rural Digital Opportunity Fund, Connect America Fund*, WC Docket Nos. 19-126 and 10-90, Report and Order, 35 FCC Rcd 686 (2020) [hereinafter *RDOF Report and Order*].

²³ *RDOF Report and Order*, ¶ 44, fn.126.

1 connecting the premise to the telecommunications network with end-to-end
2 Internet Protocol capability. In more urban/suburban areas, the consumer's
3 connection to the telecommunications network has changed from a two-wire
4 copper facility voice connection to a fiber optic connection transmitting data for
5 all sorts of applications—voice, video, images, and data. But the pace of
6 technology change was, and continues to be, slower in the rural areas operated by
7 the large telephone holding companies There is still a lot of copper outside plant
8 in rural areas particularly those served by large holding companies such as
9 Lumen, AT&T and Verizon.

10 **Q. Does CenturyLink's competition study evaluate and compare functionally**
11 **equivalent or substitutable services as required by RCW 80.36.320(1)(c)?**

12 A. No. The competition study compares CenturyLink's actual subscriber count for
13 "plain old telephone service" or "POTS" to the number of *broadband serviceable*
14 *locations*²⁴ individual telecommunications service providers claim to be able to
15 serve with broadband internet access services in their submissions to the FCC
16 Broadband Data Collection. POTS service is not functionally equivalent to or
17 substitutable for broadband internet access. I can conceive of no circumstance in
18 the present time where a consumer would subscribe to residential or business
19 POTS service to access the internet, let alone for broadband internet access. Voice
20 service is now an application that rides on a broadband internet connection along
21 with other data and video streams. Thus, a comparison of functionally equivalent
22 or substitutable services would compare the broadband services provided by
23 Lumen's CLEC and ILEC affiliates to broadband services provided by others
24 such as Astound, Xfinity, Charter and Comcast.

25 **Q. Setting aside the non-comparability of CenturyLink's POTS service to**
26 **broadband internet access service provided by other telecommunications**

²⁴ Brevitz, Exh. DB-4 (see Resp. No. 18, subpart A).

1 **service providers, did CenturyLink include broadband internet access**
2 **service provided by its ILECs in the competition study?**

3 A. No. On the confidential “Access Line Count Data” tab of the study CenturyLink
4 included only voice or Voice over IP lines from its ILECs and *some* of its
5 affiliates—CenturyLink Communications and “legacy” Level 3 affiliates (“Global
6 Crossing”, Level 3 Communications LLC, Level 3 Telecom of Washington LLC
7 and Wiltel).²⁵ It did not include ILEC broadband connections for DSL or other
8 technologies. Also, comparing the list of affiliates identified in CenturyLink’s
9 response to Public Counsel Data Request No. 27 to the affiliates identified in the
10 CenturyLink response to Staff Data Request No. 2, indicates Voice over IP lines
11 for Q Fiber LLC (Quantum Fiber), and perhaps Global Crossing Local Services
12 Inc. are not included in CenturyLink’s Access Line Count data tab.

13 **Q. Again, setting aside the non-comparability of CenturyLink’s POTS service to**
14 **broadband internet access service provided by other telecommunications**
15 **service providers, did CenturyLink include broadband internet access**
16 **service provided by its Lumen affiliates in the competition study?**

17 A. No. The failure to provide and include affiliate and ILEC broadband lines
18 overstates the market share of other telecommunications service providers and
19 understates CenturyLink’s market share, such as the claim in paragraph 14 of the
20 Petition that “its incumbent local exchange carrier operations now provide less
21 than 4% of the voice connections in Washington.” The failure to include Quantum
22 Fiber lines and perhaps Global Crossing Local Services lines overstates the
23 purported market share of the “voice services market” of other
24 telecommunications service providers and understates CenturyLink’s market
25 share, such as the claim in paragraph 14 of the Petition that “its incumbent local
26 exchange carrier operations now provide less than 4% of the voice connections in
27 Washington.” Furthermore, it is an “apples and oranges” comparison as is

²⁵ *Id.* (CenturyLink’s Response to Public Counsel Data Request No. 27(R)).

1 described throughout this testimony. Comparing CenturyLink’s residential voice
2 telephone connections delivered over copper local loop facilities to broadband
3 internet access service from internet service providers in the state is not
4 comparing “functionally equivalent or substitute services”. Therefore, the
5 Commission should not rely on these “market share” estimates from the
6 competition study in making its determination on CenturyLink’s competitive
7 classification petition.

8 **Q. Did Public Counsel request this data from CenturyLink?**

9 A. Yes. Public Counsel’s Data Request Nos. 21 and 22 requested broadband data as
10 filed at the FCC in the Form 477 filing process for three periods—as of June 30,
11 2022²⁶; December 31, 2017; and December 31, 2012, and further requested the
12 data as of June 30, 2022, be broken down by wire center using the same method
13 CenturyLink used to divide other census tract data among the wire centers.

14 **Q. Did CenturyLink provide the data in Public Counsel’s Data Request Nos. 21
15 and 22?**

16 A. CenturyLink provided only part of the data. Public Counsel’s Data Request Nos.
17 21 and 22 along with CenturyLink’s response is attached as Exhibit DB-4.
18 CenturyLink provided the Form 477 voice lines by wire center for the
19 CenturyLink ILECs, and two affiliates—CenturyLink Communications and Level
20 3. According to the Quantum Fiber website,²⁷ it also provides voice calling
21 capability via Voice-over-IP which CenturyLink confirmed in its supplemental
22 response to Public Counsel’s Data Request No. 27(R) provided on April 1, 2024.
23 No broadband subscription data was provided for any of the Lumen affiliates, but
24 broadband subscription data was provided for the CenturyLink ILECs and the
25 data appears to be for DSL lines. CenturyLink objected to providing any further

²⁶ After this date, the broadband data filings are accomplished via the Broadband Data Collection process. Form 477 Resources, Federal Communications Commission <https://www.fcc.gov/economics-analytics/industry-analysis-division/form-477-resources>.

²⁷ Quantum Fiber, *Connected Voice*, <https://www.quantumfiber.com/phone-service.html> (last visited Mar. 28, 2024).

1 data. Public Counsel is still seeking this data for its presentation to the
2 Commission in this matter.

3 **Q. Is Quantum Fiber Lumen’s leading telecommunications product for “mass**
4 **markets” (residence and small business)?**

5 A. Yes. According to Lumen’s 2023 SEC Form quarter filing Lumen conducts
6 operations under *three brands*.²⁸ Lumen itself is the “flagship brand for serving
7 the enterprise and wholesale markets”.²⁹ It is viewed as a growth business where
8 Lumen is deploying capital. Quantum Fiber is the Lumen “brand for providing
9 fiber-based services to residential and small business customers.”³⁰ It is also
10 clearly a key growth business where Lumen is deploying capital.³¹ “A key
11 element of our network expansion plan is our Quantum Fiber buildout project.
12 Under this project, we propose over the next several years to construct additional
13 fiber optic infrastructure to enable us to provide Quantum Fiber broadband
14 services to several million additional urban and suburban locations in our
15 remaining ILEC markets.”³² Thus, Quantum Fiber enabled locations grew by
16 516,000 locations in 2023, while “other broadband” (e.g., copper/DSL) declined
17 597,000 locations in 2023.³³ Finally, CenturyLink (including the CenturyLink
18 ILECs in this case) is the “long-standing brand for providing mass-marketed
19 copper-based services, managed for cash flow and optimal efficiency.”³⁴

20 Lumen seeks to strategically “expand our network capacity through our
21 Quantum Fiber buildout plan and other initiatives” and “manage our non-fiber

²⁸ Brevitz, Exh. DB-5, at 6.

²⁹ *Id.*

³⁰ *Id.*

³¹ See for example, Brevitz, Exh. DB-6 at 11. Lumen Fourth Quarter 2023 Results, released February 6, 2024. Fiber broadband revenue (Quantum) grew 11.5 percent year over year, while “other broadband” revenue which “primarily includes revenue from lower speed copper-based broadband services marketed under the CenturyLink brand” declined 12.5 percent year over year.

³² Brevitz, Exh. DB-5, at 12.

³³ Brevitz, Exh. DB-6, at 12.

³⁴ Brevitz, Exh. DB-5, at 6.

1 business for cash flow” among other strategies.³⁵ Referring to all broadband
2 technologies Lumen states it has “approximately 21.8 million broadband-enabled
3 units capable of serving our Mass Markets customer base. At December 31, 2023,
4 approximately 3.7 million of our Mass Markets broadband-enabled units were
5 capable of receiving services from our fiber-based infrastructure, with the
6 remainder connected with copper-based infrastructure.”³⁶

7 **Q. Do Quantum Fiber connections displace CenturyLink residential voice**
8 **connections on copper outside plant?**

9 A. Yes. Therefore, Lumen has had a *direct role* in the decline of residential voice
10 connections depicted in its competition study. CenturyLink does not mention in
11 its testimony that residential voice connections are migrating to a Lumen
12 affiliate’s service—Quantum Fiber—data for which it has not provided. This at least
13 partially explains CenturyLink’s claim in paragraph 14 of the Petition that “its
14 incumbent local exchange carrier operations now provide less than 4% of the
15 voice connections in Washington.” That claim is overstated for several reasons
16 one of which is that it refers only to CenturyLink’s ILEC operations, and another
17 of which is that CenturyLink voice connections are migrating to Quantum Fiber
18 connections—from ILEC to CLEC affiliate under the same ultimate holding
19 company parent.

20 **Q. Is Lumen moving customers served via CenturyLink fiber to the home over**
21 **to the Quantum affiliate?**

22 A. Yes, if complaints to the Attorney General’s office are any indication this is
23 Lumen’s practice.³⁷ So even obtaining broadband internet access subscription data
24 for CenturyLink’s ILEC affiliates would be insufficient to show market share in
25 the broadband internet access market as the former CenturyLink FTTH
26 connections are being moved over to the Lumen affiliate—Quantum Fiber.

³⁵ *Id.*, at 8.

³⁶ Brevitz, Exh. DB-5, at 11.

³⁷ *See*, Resp. Test. of Stephanie K. Chase, Exh. SKC-2.

1 A. The competition study does not compare functionally equivalent or substitute
2 services. Exhibit 1 compares CenturyLink ILECs residential voice telephone
3 service to broadband internet access services of providers CenturyLink asserts are
4 competitors—but leaves out CenturyLink’s own ILEC and CLEC affiliate-
5 provided broadband internet access services. This is an “apples and oranges”
6 comparison which does not use a consistent definition of the “relevant market”.
7 Inclusion of Quantum Fiber and other Lumen affiliate broadband data by wire
8 center is essential for an accurate depiction of competition at a granular level.
9 Adding the affiliate broadband data as an additional column to the competition
10 study would present a full picture of the market on an “apples to apples” basis.

11 Furthermore, CenturyLink has presented the locations indicated to be
12 served by all other companies participating in the broadband data collection for
13 the State of Washington but has omitted its own data—both for the ILECs and the
14 Lumen affiliates. The result is a very skewed and misleading calculation of
15 “market share”—leading to CenturyLink’s claim in paragraph 14 of the Petition
16 that “its incumbent local exchange carrier operations now provide less than 4% of
17 the voice connections in Washington.” For a complete depiction of the
18 telecommunications marketplace in Washington, Public Counsel and the
19 Commission need broadband internet access subscription data for CenturyLink
20 and all the Lumen affiliates for the State of Washington. This information is
21 relevant and necessary for the competition study, particularly considering RCW
22 80.36.320(1)(d), which requires the Commission to consider in determining
23 whether a company is competitive “other indicators of market power which may
24 include market share, growth in market share, ease of entry, and the *affiliation of*
25 *providers of services*” (*emphasis added*).

26 **Q. RCW 80.36.320(1)(b) requires the Commission to consider in determining**
27 **whether a company is competitive “the extent to which services are available**

1 **from alternative providers *in the relevant market***” (*emphasis added*). **How did**
2 **CenturyLink define the relevant market in its competition study?**

3 A. CenturyLink does not squarely define “the relevant market” any place I could find
4 in its petition or supporting testimony. CenturyLink variously described the
5 relevant market as the “marketplace for voice communications”⁴⁰, “voice
6 telephony market”⁴¹ or “voice market”⁴², “voice and broadband markets”⁴³, the
7 “broadband/voice market”⁴⁴, “copper-based wireline market”⁴⁵, and “voice
8 telephony alternatives along with broadband options”⁴⁶. CenturyLink used the
9 State of Washington for the geographic boundary of these “markets”. In my view,
10 the relevant market for the Commission’s consideration of a competitive
11 classification petition must include both the product or service dimension as well
12 as the geographic dimension.

13 **Q. Since RCW 80.36.320 does not provide a definition of “the relevant market”**
14 **how do you recommend the Commission define and consider it?**

15 A. The Commission should define relevant markets considering both the geographic
16 dimension and the product or service dimension for consumers. Combined legal
17 entity certificated territory boundaries of the five CenturyLink ILECs within the
18 state likely do not define the geographic dimension of the relevant market
19 boundaries that encompass equivalent, substitutable, reasonably available service
20 alternatives. The Commission should not consider ILEC certificated territory
21 boundaries within the state to define “the relevant market”. Most prominently the
22 Qwest, CenturyTel of Washington and United Telephone Company ILEC
23 territories mix urban/suburban and rural service areas, which have distinctly
24 different characteristics in terms of serving technologies and alternative service

⁴⁰ *CenturyLink’s Petition*, ¶ 3.

⁴¹ *CenturyLink’s Petition*, ¶ 14, and Gose, Exh. PJG-1T at 13.

⁴² Gose, Exh. PJG-1T at 29, and Direct Test. of Dennis Weisman, Exh. DLW-1T at 3.

⁴³ *CenturyLink’s Petition*, ¶ 20 and Gose, Exh. PJG-1T at 20.

⁴⁴ Gose, Exh. PJG-1T, at 24.

⁴⁵ *Id.*, at 34.

⁴⁶ *CenturyLink’s Petition*, ¶ 21.

1 providers. These different characteristics require subdivision of those individual
2 ILEC territories to identify relevant markets for purposes of considering
3 competitive classification. The reasonably available service alternatives that are
4 equivalent and substitutable are crucially dependent on the consumer's location.
5 Generally urban/suburban consumers will have more alternatives than rural
6 consumers in terms of service provider choice and serving technology (e.g., fiber
7 vs. copper outside plant). These are rational demarcations the Commission can
8 consider in defining relevant markets, and the wire center-by-wire center
9 identification of providers presented by CenturyLink in Exhibit 1 can help begin
10 to draw these lines more precisely and identify relevant markets for each of the
11 CenturyLink ILECs as described more fully below.

12 CenturyLink makes varying claims including that it “faces intense
13 competition from alternative providers in each of its 221 wire centers across
14 Washington,”⁴⁷ “CenturyLink faces intense competition *across the state* from
15 scores of competitors, large and small,”⁴⁸ and “Washington competitors who
16 *collectively* provide the overwhelming majority of the *voice connections* in the
17 state.”⁴⁹ These claims, which aggregate information on a statewide basis, do not
18 help in defining relevant markets since reasonably available service alternatives
19 that are equivalent and substitutable are crucially dependent on the consumer's
20 location. The fact that a residential consumer in King County may have an array
21 of reasonably available service alternatives in no way assures that the residential
22 consumer in CenturyTel of Washington territory in Adams County will have the
23 same or even similar reasonably available service alternatives. Those consumers
24 are not in the same relevant market and should not be considered to be in the same
25 relevant market for the purposes of determining competitive classification.

⁴⁷ *CenturyLink's Petition*, ¶ 11.

⁴⁸ *Id.*, ¶ 19, *emphasis added*.

⁴⁹ *Id.*, ¶ 20, *emphasis added*.

1 **Q. How should the Commission consider the product or service dimension for**
2 **consumers in defining the relevant market for competitive classification?**

3 A. For reasons explained earlier, the service dimension for defining the relevant
4 market for competitive classification should be broadband internet access service,
5 which is now the “universal service” supported by public policy (for example the
6 Affordable Connectivity Program) and infrastructure funding and digital equity
7 grants. The FCC states, “bridging the digital divide – particularly in rural areas
8 where broadband is insufficiently deployed – is the Commission’s top priority.”⁵⁰
9 Broadband internet access service connections are the telecommunications
10 connections chosen by consumers across the country. Residential consumers do
11 not subscribe to voice service over copper local loop facilities to obtain access to
12 the internet. The CenturyLink competition study recognizes this reality by
13 identifying approximately 74 broadband internet access service providers as the
14 competition in the marketplace for CenturyLink.

15 **Q. Please provide your assessment of the information provided by CenturyLink**
16 **in its competition study regarding cable companies.**

17 A. The “cable” tab in CenturyLink’s competition study identifies sixteen cable
18 companies providing broadband internet access service in the state of
19 Washington. One cable provider is large in terms of broadband serviceable
20 locations available in Washington: Xfinity (sum of Xfinity locations, 1,254,464
21 out of 1,518,292 total cable locations available). The next three largest are
22 Astound, Charter and Rainier Connect (119,613 and 128,945 and 89,920
23 broadband serviceable locations available, respectively). The next tier of cable
24 providers is Bluespan, Coast Communications Co., DCI, Hood Canal
25 Communications, Inland Telephone Company, Rally Networks, San Juan Cable,
26 Vyve Broadband, Washington Broadband and Zito Media (available in 135–
27 18,817 locations). Netrix and Rock Island Communications are available in one

⁵⁰ Fed. Comm’n Comm’n, *Rural Broadband Auctions*,
<https://www.fcc.gov/auctions/ruralbroadbandauctions> (last visited Mar. 29, 2024).

1 wire center respectively, one and seven locations available. If wire centers with
2 less than 20 percent of total locations with cable indicated to be available are
3 excluded, that leaves 74 out of 221 total wire centers without a significant cable
4 alternative provider, as depicted on Exhibit DB-7. The Commission should not
5 consider these wire centers to have “reasonably available alternatives” or
6 “functionally equivalent or substitute services readily available at competitive
7 rates, terms, and conditions” from cable providers under RCW 80.36.320.
8 Relatively few Qwest wire centers are included in the 74 wire centers without a
9 significant cable alternative.

10 **Q. Do the cable companies typically offer stand-alone voice services, without a**
11 **broadband internet access cable connection?**

12 A. A consumer is unlikely to be able to obtain stand-alone voice services from a
13 cable company and it is not clear how a consumer would use that stand-alone
14 voice service from a cable company if they could get it. The “voice service” is
15 Voice over IP, which requires a broadband internet access connection – which the
16 consumer would have to obtain somewhere else to use the stand-alone voice
17 service. For example, Gose, Exhibit PJG-17, “Xfinity Home Phone Services”,
18 states “restrictions apply”, and “Universal caller ID requires subscription to
19 Xfinity Digital TV and Internet Service.” The fact that stand-alone voice services
20 often is not obtainable from cable companies reinforces the earlier “relevant
21 market” discussion that voice connections are not a “market”—the relevant market
22 is for broadband internet access upon which the Voice over Internet Protocol rides
23 as an application.

24 **Q. Please provide your assessment of the information provided by CenturyLink**
25 **in its competition study regarding fiber providers on the “Fiber” tab of the**
26 **competition study.**

27 A. CenturyLink identifies 53 companies as fiber-based providers of broadband
28 internet access service on the “Fiber” tab of its competition study. This

1 presentation overstates the competitive presence of fiber providers in the
2 CenturyLink wire centers particularly in terms of serving mass market residential
3 consumers. Some of these providers are wholesale providers, e.g., the Public
4 Utility Districts whose customers providing retail services are also listed, which is
5 duplicative. As shown below, nearly half the identified fiber providers have only
6 single- or double-digit locations.

Table 2: Identified Low Count Fiber Provider Locations

Fiber Providers from CTL Exh 1			
#	Provider	Fiber Locations	Copper Locatio
1	Coast Communications Co.	1	
2	Cogent Communications	41	
3	Crown Castle Fiber LLC	1	
4	Day Wireless	27	
5	Fusion	11	27
6	Hunter Communications	2	
7	Intermax Networks	2	
8	Jefferson County PUD	7	
9	Logix Communications LP	1	
10	Methownet com	58	
11	NetFortris	6	
12	Nikola Broadband	19	
13	Orcas Online Inc.	1	
14	Pavlov Media	2	
15	Pioneer Telephone Company	2	
16	Priest Lake Broadband	29	
17	PUD 1 of Okanogan	97	
18	Red Spectrum Communications	2	
19	San Juan Cable	39	
20	Scatter Creek InfoNet	1	79
21	Sound Internet Services	51	
22	Taluslink LLC	4	
23	Wind Wireless	3	
24	xyTel	25	
	Total	432	106

8 Furthermore, several of these providers are infrastructure or backbone network
9 providers (e.g., Crown Castle LLC, Pavlov Media) and do not provide retail mass
10 market services, or are enterprise service providers (e.g., Cogent

1 Communications, Logix Communications LP) which again do not provide retail
2 mass market services. The Commission should not consider wire centers
3 associated with these providers to have “reasonably available alternatives” or
4 “functionally equivalent or substitute services readily available at competitive
5 rates, terms, and conditions” from fiber providers under RCW 80.36.320.

6 **Q. Do the fiber providers typically offer stand-alone voice services, without a**
7 **broadband internet access cable connection?**

8 A. A consumer is unlikely to be able to obtain stand-alone voice services from a fiber
9 provider and it is not clear how a consumer would use that stand-alone voice
10 service from a fiber provider if they could get it. The “voice service” is Voice
11 over IP, which requires a broadband internet access connection—which the
12 consumer would have to obtain somewhere else to use the stand-alone voice
13 service. The fact that stand-alone voice services likely is not obtainable from fiber
14 providers reinforces the earlier “relevant market” discussion that voice
15 connections are not a “market”—the relevant market is for broadband internet
16 access upon which the Voice over Internet Protocol rides as an application.

17 **Q. Please provide your assessment of the information provided by CenturyLink**
18 **in its competition study regarding wireless providers on the “Fixed Wireless”**
19 **tab of the competition study.**

20 A. CenturyLink identifies 43 fixed wireless service providers in its competition study
21 as offering a functionally equivalent or substitute service for voice service over
22 copper network facilities. However, these fixed wireless providers mainly offer
23 broadband internet access service at speeds equivalent in many cases to DSL
24 speeds. I recommend the Commission be cautious in considering fixed wireless
25 service as a “functionally equivalent or substitute service readily available at
26 competitive rates, terms and conditions”.⁵¹ Fixed wireless broadband internet
27 access service is affected by all the things which affect radio signals, including

⁵¹ RCW 80.36.320(1)(c).

1 signal strength, shared capacity, line of sight obstructions such as terrain and
2 topography and foliage, and weather. A site visit from a technician is often
3 needed to verify that a fixed wireless connection can be established. Scalability of
4 speeds and coverage can be challenging to achieve a fixed wireless network that
5 can provide sufficient upstream and downstream capacity and reach all the
6 premises in the area. Upgrading technology can require replacement of base
7 station antennas and customer premise antennas which is much of the broadband
8 infrastructure associated with the fixed wireless option. The fastest technologies
9 are the least suitable for rural areas due to geographic dispersion. Review of some
10 of the websites of the fixed wireless providers identified in the CenturyLink
11 competition study indicates that the speeds offered can be relatively slow
12 compared to the FCC standard of 25 Mbps download/3 Mbps upload, and little
13 better than DSL speeds. These services may not be scalable upward as required by
14 Washington Broadband Office. These service tiers may not provide broadband
15 service which meets state and federal requirements, to the extent that is the case
16 those wire centers would be considered “underserved” for grant and Broadband
17 Office purposes. The Commission should use caution in considering wire centers
18 associated with fixed wireless providers to have “reasonably available
19 alternatives” or “functionally equivalent or substitute services readily available at
20 competitive rates, terms, and conditions” from cable providers under RCW
21 80.36.320 and make sure it has been demonstrated that the fixed wireless speed
22 tiers meet state and federal requirements for broadband. These speed tiers need to
23 exceed 25/3 and be scalable upward as well as provide reliable affordable service.

24 **Q. Do the fixed wireless companies typically offer stand-alone voice services,
25 without a broadband internet access cable connection?**

26 A. A consumer is unlikely to be able to obtain stand-alone voice services from a
27 fixed wireless provider and it is not clear how a consumer would use that stand-
28 alone voice service from a fixed wireless provider if they could get it. The “voice

1 service” is Voice over IP, which requires a broadband internet access connection–
2 which the consumer would have to obtain somewhere else to use the stand-alone
3 voice service.

4 **Q. Please provide your assessment of the information provided by CenturyLink**
5 **in its competition study regarding Public Utility Districts.**

6 A. CenturyLink provides a paragraph on Public Utility Districts (PUD) based on the
7 Washington Public Utilities District Association website.⁵² It appears
8 CenturyLink overlays fifteen PUD boundaries on CenturyLink’s ILEC service
9 areas and assumes the PUD is competing with CenturyLink across the entire
10 overlaid area. CenturyLink includes five specific PUDs in its competition study
11 on the “fiber” tab (Grant County PUD, Jefferson County PUD, Okanogan County
12 PUD District 1, Washington County PUD, and “PUD 3 Fiber” but does not
13 provide any further analysis of those five PUDs and the services they might be
14 offering. I looked more closely at those five PUDs identified in the CenturyLink
15 competition study:

- 16 1. Grant County PUD provides wholesale fiber to providers but does not
17 intend to provide retail service.⁵³ The original purpose for the fiber
18 network when it was built in the 1980s was “for high-speed
19 communications between its Columbia River dams and the dispatch center
20 at its Ephrata Headquarters. Dispatch monitors and controls when and how
21 much power the dams are generating. Fast communications are very
22 important. Fiber was a faster means than the microwave communications
23 it replaced.”⁵⁴ Grant County PUD identifies fifteen service providers “who
24 sell internet, telephone, and/or cable TV services over Grant PUD’s

⁵² Gose, Exh. PJG-1T at 24.

⁵³ Grant Pub. Util. District, *High Speed Network FAQs*, <https://www.grantpud.org/getfiber> (last visited Apr. 1, 2024).

⁵⁴ *Id.*

1 wholesale fiber-optic network.”⁵⁵ Two of these providers are included as
2 fiber providers in CenturyLink’s competition study (Grant County
3 Powernet and Vyve Broadband). Grant County PUD fiber does not serve
4 the entire county according to its “FAQs”.

- 5 2. Jefferson County PUD provides wholesale fiber to retailers providing
6 retail service (Advanced Stream, Jamestown Networks and NOP Data
7 Center).⁵⁶ “The PUD is building fiber to homes and businesses in our
8 electric service territory lacking access to wired internet capable of
9 meeting today’s work, school, and civic requirements.” Registration and
10 cost sharing is required.
- 11 3. Okanogan County PUD began backbone fiber initiative in 1999 and has
12 continued with WiFi and additional fiber construction for a fiber presence
13 for most anchor institutions. Services are provided through a retail
14 provider not the PUD. The listed providers are CommunityNet, Highland
15 Internet Services, LocalTel, Methownet.com, NCI Datacom, Wholesail
16 Networks, PC Telecom, Startouch Microwave Communications and Will
17 Connect.⁵⁷
- 18 4. “WA County PUD” was listed only in the competition study spreadsheet
19 with no further information. Data did not appear to align with any single
20 public utility district.
- 21 5. “PUD 3 operates a wholesale fiber optic telecommunications network,
22 which supports the operation of its electric distribution services. Local
23 telecommunications businesses have partnered with PUD 3 to resell

⁵⁵ Grant Pub. Util. District, *Fast, Affordable, Reliable Internet over Grant PUD Fiber Optics*, <https://www.grantpud.org/templates/galaxy/images/2024.01.16-Fiber-Bilingual.pdf> (last visited Apr. 2, 2024) (Bilingual Fiber Brochure).

⁵⁶ Jefferson County Pub. Util. District, *Qualified Internet Service Providers*, <https://www.jeffpud.org/qualified-internet-service-providers/> (last visited Apr. 2, 2024).

⁵⁷ Okanogan County Pub. Util. District, *Connecting Okanogan*, <https://okpudfiber.org/#retailserviceprovider> (last visited Apr. 2, 2024).

1 broadband, telephone service, basic and high-definition television service.
2 The PUD’s fiber optic network complements existing telecommunications
3 services. It provides Mason County with fast and reliable business
4 network connections.”⁵⁸ Mason PUD 3 provides wholesale fiber
5 infrastructure to five retailers listed on its website:⁵⁹ Advanced Stream,
6 Hood Canal Communications, Fiber Communications, NoahNet and
7 SilverStar Telecom. Hood Canal Communications is also listed in the
8 competition study. PUD 3 is supporting “fiberhoods” after 75 percent of
9 neighbors commit then the neighborhood will be put on a construction list
10 which will require “construction adder” on everyone’s bill.⁶⁰

11 Relatively few PUDs are included as providers in CenturyLink’s competition
12 study—five out of 15. All are in rural Washington and provide wholesale
13 infrastructure to retail providers, which CenturyLink could also utilize to provide
14 its retail services. CenturyLink appears to have included the retail providers using
15 PUD wholesale services to provide broadband internet access. The PUD fiber
16 networks appear to have originated to support the PUD’s utility mission to
17 provide energy services. In order to get fiber infrastructure built, it appears
18 consumers must reach a threshold of commitments in an area and participate in
19 funding construction which will then follow normal fiber construction intervals.
20 Broadband internet access service from PUDs thus has varying levels of
21 availability depending on whether or not the particular PUD has elected to extend
22 fiber optic infrastructure.

23 **Q. Please provide your assessment of the information provided by CenturyLink**
24 **in its competition study regarding Ports.**

⁵⁸ Mason Pub. Util. District, *Background of PUD 3’s Fiber Network*, <https://www.pud3.org/service/additional-services/pud-3-fiber-optic-network/background-of-pud-3s-fiber-network> (last visited Apr. 2, 2024).

⁵⁹ Mason Pub. Util. District, *PUD 3 Fiber Optic Retailers*, <https://www.pud3.org/service/additional-services/pud-3-fiber-optic-network/pud-3-fiber-optic-retailers> (last visited Apr. 1, 2024).

⁶⁰ Mason Pub. Util. District, *Fiberhoods*, <https://www.pud3.org/service/additional-services/pud-3-fiber-optic-network/fiberhoods> (last visited Apr. 1, 2024).

1 A. CenturyLink did not provide much information regarding ports, and no
2 information to indicate ports are actually providing broadband internet access
3 services to residential consumers. There was no data regarding ports included in
4 the competition study.

5 **Q. Please provide your assessment of the information provided by CenturyLink**
6 **in its competition study regarding satellite providers on the “Satellite” tab.**

7 A. CenturyLink includes commercial satellite service in its competition study as a
8 functionally equivalent or substitute service for voice service over copper network
9 facilities. CenturyLink identifies three satellite providers—HughesNet, Viasat, and
10 Starlink. HughesNet and Viasat are provided via Geosynchronous Equatorial
11 Orbit (GEO), 22,000 miles above Earth, while Starlink is provided via Low Earth
12 Orbit (LEO), 350 miles above Earth. Whether GEO or LEO, broadband internet
13 access service via satellite is known to have significant shortcomings including
14 high latency, lower speeds, data caps and limits, vulnerability to bad weather,
15 long minimum contracts and high prices. Thus, affordability of satellite services is
16 questionable such that it is not clear satellite service is “available at competitive
17 rates, terms and conditions”. Furthermore, the FCC has found that Starlink is not
18 reasonably capable of providing 100 Mbps download/20 Mbps upload low latency
19 broadband internet access service to meet the conditions of the FCC’s RDOF
20 program and thus declined to authorize Starlink to receive RDOF funding.⁶¹ I do
21 not recommend the Commission accept commercial satellite service as a
22 “functionally equivalent or substitute service readily available at competitive
23 rates, terms and conditions” for purposes of deciding whether to grant competitive
24 classification to CenturyLink. Therefore, I have excluded commercial satellite
25 service from my analysis of “functionally equivalent or substitute service readily
26 available at competitive rates, terms and conditions”.

⁶¹ *In re Application for Review of Starlink Services LLC*, WC Docket No. 19-126, Order on Review, FCC 23-105 (Dec. 12, 2023).

1 **Q. Please provide your assessment of the information provided by CenturyLink**
2 **in its competition study regarding wireless providers on the “Mobile Voice”**
3 **tab.**

4 A. CenturyLink includes mobile wireless service in its competition study as a
5 functionally equivalent or substitute service for voice service over copper network
6 facilities. CenturyLink identifies AT&T Wireless, Dish Network, Inland Cellular,
7 T-Mobile, TDS Telecom and Verizon as providing mobile wireless service.
8 CenturyLink uses the FCC’s broadband data collection for this identification,
9 which in turn relies on an estimate of broadband coverage provided by mobile
10 providers’ “generat[ion of] the 3G, 4G LTE, and 5G-NR coverage areas shown on
11 the map using propagation modeling, where the models include certain common
12 settings for consistency.” CenturyLink uses this data despite the FCC’s disclaimer
13 that,

14 The coverage areas are meant to represent the areas where a user
15 should be able to establish a mobile connection, *either outdoors or*
16 *moving in a vehicle*, and achieve certain upload and download
17 speeds. Please note that *the map does not include information on the*
18 *availability of mobile wireless broadband service while indoors.*
19 Because the coverage map is based on propagation modeling, *a*
20 *user’s actual, on-the-ground experience may vary due to factors*
21 *such as the end-user device used to connect to the network, cell site*
22 *capacity, and terrain.*⁶²

23 CenturyLink also relies upon the National Health Interview Survey (Gose,
24 Exhibit PJG-6) to estimate the percentage of “wireless-only” adults in the
25 individual states. CenturyLink presents an “estimate that (as of 2020) 65% of
26 Washington adults utilize wireless services only” and further compares landline
27 subscriptions versus wireless subscriptions in Washington between 2001 and
28 2022.⁶³ However, the more apt comparison would be the number of adults in
29 Washington that use wireless service *for broadband internet access*, and to assess

⁶² Gose, Exh. PJG-7, *emphasis added*.

⁶³ Gose, Exh. PJG-1T at 13–14.

1 that comparison in distinct geographies—rural and urban areas of the state
2 separately. Gose, Exhibit PJG-6 makes it clear that the estimate is for *personal*
3 *telephone status* and does not address broadband connections. The geography of
4 the 65 percent of Washington adults is unknown and not addressed and may very
5 well included proportionally few adults in rural areas due to wireless coverage
6 issues. Stephanie Chase further discusses these gaps in wireless coverage in her
7 testimony on behalf of the Public Counsel at pages 5–7 of her testimony.

8 I do not recommend the Commission accept mobile wireless service as a
9 “functionally equivalent or substitute service readily available at competitive
10 rates, terms and conditions” for purposes of deciding whether to grant competitive
11 classification to CenturyLink. It is certainly not available in all cases particularly
12 in rural areas. Therefore, I have excluded mobile wireless service from my
13 analysis of “functionally equivalent or substitute service readily available at
14 competitive rates, terms and conditions”.

15 **Q. How should broadband internet access service be defined?**

16 A. The statutes establishing the Washington Broadband Office set state speed goals
17 of 150 Mbps download/150 Mbps upload for all residents and businesses in the
18 state by 2028. The state speed goal for 2024 is 25 Mbps download/3 Mbps upload
19 scalable upwards for all residences and businesses.⁶⁴ This is also the FCC’s
20 minimum speed for RDOF broadband requirements and the National
21 Telecommunications and Information Administration’s Broadband Equity,
22 Access and Deployment (BEAD) grant funding requirements. The BEAD
23 program prioritizes grant funding for areas that have no broadband internet access
24 service or only have access below 25 Mbps download/3 Mbps upload, as well as
25 underserved locations which have broadband access below 100 Mbps
26 download/20 Mbps upload. RDOF support recipients may bid on and must

⁶⁴ Wash. State Dept. of Commerce, *Washington State Broadband Office*,
<https://www.commerce.wa.gov/building-infrastructure/washington-statewide-broadband-act/> (citing RCW
43.330.536, Broadband office – Goals).

1 commit to performance tiers. The RDOF minimum tier is 25 Mbps download/3
2 Mbps upload, and the “above baseline” tier is 100 Mbps download/20 Mbps
3 upload. The FCC’s definition of broadband is reviewed periodically and increased
4 from time to time and likely will increase again. The more recent definition of
5 broadband in the Investment in Infrastructure and Jobs Act (100 down/20 up) is
6 more forward looking and the broadband speed definition the Commission should
7 consider for purposes of this competitive classification proceeding.

8 **Q. But isn’t it true that the Commission and the FCC do not regulate**
9 **broadband internet access?**

10 A. Yes, it is correct that broadband internet access service is not regulated. But that
11 doesn’t prevent the Commission from referring to the broadband internet access
12 service for purposes of market definition to address telecommunications
13 competition.

14 **Q. Must the Commission grant competitive classification for all five**
15 **CenturyLink ILECs, statewide, or not grant competitive classification at all?**

16 A. No. I do not believe the Commission is limited to an “all or nothing”
17 determination on CenturyLink’s competitive classification petition. As made clear
18 by this testimony CenturyLink has not met its burden of demonstrating effective
19 competition and lack of captive customers on a statewide basis for all the wire
20 centers in its five ILEC operations. Despite not the fact that CenturyLink has not
21 carried its burden of proof, the Commission could consider drawing its own line
22 between competitive and non-competitive areas, such as granting competitive
23 classification for CenturyLink wire centers which have two or more facilities-
24 based wireline competitors which are providing broadband internet access service
25 and decline to grant competitive classification for wire centers which do not have
26 a facilities-based wireline competitor providing broadband access service.

27 **Q. Do you recommend that the Commission find that CenturyLink has met its**
28 **burden of showing effective competition in each of its wire centers such that**

1 **customers have reasonably available alternatives and that there is no**
2 **significant captive customer base, considering the number and sizes of**
3 **alternative providers of service (RCW 80.36.320(1)(a))?**

4 A. I do not recommend the Commission find that CenturyLink has met its burden in
5 each wire center under RCW 80.36.320(1)(a). CenturyLink has presented what it
6 claims to be a “highly granular analysis” but review of the “modalities” and data
7 on a wire center by wire center basis suggests a lack of alternatives for broadband
8 internet access service in many of the smaller wire centers.

9 CenturyLink has not correctly defined the product and geographic
10 dimensions of “the market” for its competitive analysis rendering in too flawed
11 for the Commission to use. CenturyLink does not provide its own side of the
12 broadband internet access services market, listing out only various providers it
13 can identify from the FCC’s Broadband Data Collection data. Beyond that,
14 several of the “modalities” used by CenturyLink should not be considered by the
15 Commission to be functionally similar and reasonably comparable to broadband
16 internet access services. Mobile wireless coverage in rural areas is known to be
17 spotty, as shown in Stephanie K. Chase’s testimony on behalf of the Public
18 Counsel, so it should be excluded from the competitive analysis. Similarly,
19 satellite service is not functionally similar and reasonably comparable and should
20 be excluded. Copper technology is “antiquated” and no longer a forward-looking
21 technology and should be excluded from the competitive analysis. This is further
22 confirmed by CenturyLink’s analysis that the Landline-Copper technology
23 accounts for 0.7 percent of “alternative service availability”.⁶⁵ The copper
24 quantities presented by CenturyLink in its study likely represent at least in part
25 resale of CenturyLink’s own services so it does not constitute facilities-based
26 competition. The cable modality is not evenly spread throughout the state and
27 there are many wire centers in Washington that do not have broadband internet

⁶⁵ *CenturyLink’s Petition*, ¶ 16, Table 1.

1 access service provided by cable particularly in the rural areas. Similarly, the fiber
2 modality is not spread evenly throughout the state and almost half the providers
3 identified by CenturyLink are enterprise service providers, wholesale providers or
4 are infrastructure or backbone network providers who do not serve residential or
5 small business consumers. The Commission should exclude these from the
6 competition study since including them overstates the competitive presence of
7 fiber providers. The Commission should be cautious in considering fixed wireless
8 providers as providing functionally equivalent and comparable service to
9 broadband internet access services. Fixed wireless service is affected by all things
10 that affect radio service, it is not clear that fixed wireless service speeds as
11 deployed in Washington are scalable upward, many speed tiers do not meet the
12 minimum threshold for broadband service (25 Mbps down/3 Mbps up) and thus
13 these areas would be considered as “underserved” for broadband infrastructure
14 funding purposes.

15 **Q. Do you recommend that the Commission find that CenturyLink has met its**
16 **burden of showing effective competition in each of its wire centers such that**
17 **customers have reasonably available alternatives and that there is no**
18 **significant captive customer base, considering the extent to which services**
19 **are available from alternative providers in the relevant market (RCW**
20 **80.36.320(1)(b))?**

21 A. I do not recommend the Commission find that CenturyLink has met its burden in
22 each wire center under RCW 80.36.320(1)(b). CenturyLink has presented what it
23 claims to be a “highly granular analysis” but as outlined immediately above,
24 review of the “modalities” and data on a wire center by wire center basis suggests
25 some of the modalities should not be considered in the competitive analysis, and a
26 lack of other alternatives for broadband internet access service such as cable or
27 fiber in many of the smaller wire centers. Because of this the consumers in many
28 of the smaller rural wire centers can be considered to be a significant captive

1 customer base since they do not have functionally similar and reasonably
2 comparable alternatives. The complaint data presented by Stephanie K. Chase on
3 behalf of the Public Counsel Unit also tends to confirm this.

4 **Q. Do you recommend that the Commission find that CenturyLink has met its**
5 **burden of showing effective competition in each of its wire centers such that**
6 **customers have reasonably available alternatives and that there is no**
7 **significant captive customer base, considering “the ability of alternative**
8 **providers to make functionally equivalent or substitute services readily**
9 **available at competitive rates, terms, and conditions” (RCW 80.36.320(1)(c)?**

10 A. I do not recommend the Commission find that CenturyLink has met its burden to
11 demonstrate customers have reasonably available alternatives and that there is no
12 significant captive customer base in each wire center under RCW 80.36.320(1)(c).
13 CenturyLink has presented what it claims to be a “highly granular analysis” but as
14 outlined immediately above, review of the “modalities” and data on a wire center
15 by wire center basis suggests some of the modalities should not be considered in
16 the competitive analysis, and a lack of other alternatives for broadband internet
17 access service such as cable or fiber in many of the smaller wire centers. Because
18 of this the consumers in many of the smaller rural wire centers can be considered
19 to be a significant captive customer base since they do not have functionally
20 similar and reasonably comparable alternatives. The complaint data presented by
21 Stephanie K. Chase on behalf of the Public Counsel Unit also tends to confirm
22 this.

23 **Q. Did CenturyLink present any information on affordability of services**
24 **whether broadband internet access or stand-alone voice service?**

25 A. No. Therefore, it was not possible to assess whether CenturyLink addressed the
26 “competitive rates, terms and conditions” component of the RCW 80.36.320(1)(c)
27 requirement. While CenturyLink identifies various providers of broadband
28 internet access it does not address the pricing of their services from an

1 affordability perspective. The Federal Communications Commission has a
2 “comparable rates” benchmark which is recalculated annually and is readily
3 available for affordability analysis. Policymakers require broadband internet
4 access service to be affordable in order to receive grants so this omission is
5 important to determine whether CenturyLink has met its burden to demonstrate
6 that alternative providers “make functionally equivalent or substitute services
7 readily available at competitive rates, terms, and conditions” as required by RCW
8 80.36.320(1)(c).

9 **Q. Do you recommend that the Commission find that CenturyLink has met its**
10 **burden of showing effective competition in each of its wire centers such that**
11 **customers have reasonably available alternatives and that there is no**
12 **significant captive customer base, by analyzing “other indicators of market**
13 **power which may include market share, growth in market share, ease of**
14 **entry, and the affiliation of providers of services” (RCW 80.36.320(1)(d)?**

15 A. I do not recommend the Commission find that CenturyLink has met its burden in
16 each wire center under RCW 80.36.320(1)(d). In particular, CenturyLink has not
17 properly identified “the market” in its analysis which allows it to aver it “is now a
18 small, minority player in the telecommunications market in Washington”⁶⁶, and
19 states it has a “tiny share of the voice market”⁶⁷ which “tiny share” it represents
20 graphically in paragraph 38 of the Petition. However, this “market share” analysis
21 compares *only* standalone residential service lines to the number of households
22 and does not include the large number of broadband lines connected to these
23 households, *which can provide Voice of IP service*, that are provided by
24 CenturyLink or one of its Lumen affiliates—the growth entity appears to be the
25 Lumen affiliate—Quantum Fiber. The market share presentation is significantly
26 skewed by not including the large number of broadband lines provided by
27 CenturyLink and its Lumen affiliates.

⁶⁶ Gose, Exh. PJG-1T at 5:11.

⁶⁷ *CenturyLink’s Petition*, ¶ 35.

1 **Q. Do you recommend that the Commission find that CenturyLink has met its**
2 **burden of showing effective competition in each of its wire centers such that**
3 **customers have reasonably available alternatives and that there is no**
4 **significant captive customer base, by presenting what *affiliates of***
5 ***CenturyLink* also provide functionally equivalent or substitute services in**
6 **Washington per RCW 80.36.320(1)(d)?**

7 A. No. Even though there are several Lumen affiliates marketing and providing
8 broadband internet access services and VoIP over fiber optic facilities or other
9 technologies in Washington, CenturyLink intentionally excluded analysis and
10 information about certain of its affiliates in its competition study. Per
11 CenturyLink response to UTC Staff Data Request No. 2, these “Washington
12 provider affiliates” include “Broadwing Communications, LLC; CenturyLink
13 Communications, LLC; Q Fiber LLC (Quantum Fiber); Global Crossing Local
14 Services, Inc.; Global Crossing Telecommunications, Inc.; Level 3
15 Communications, LLC; Level 3 Telecom of Washington, LLC; and WilTel
16 Communications, LLC.”⁶⁸ CenturyLink response to Data Request PC-27 omitted
17 identification of Q Fiber LLC (Quantum Fiber) and did not specifically identify
18 Global Crossing affiliates.⁶⁹ Exclusion of CenturyLink affiliates by CenturyLink
19 in its competition study skews the analysis toward showing greater purported
20 market share and presence for other telecommunications providers. The Public
21 Counsel Unit sought broadband connection data by wire center via its Data
22 Request Nos. 21, 22 and 23⁷⁰ but CenturyLink was not fully responsive. In
23 particular, it did not provide information from its CLEC and Lumen affiliates.
24 CenturyLink’s response to Public Counsel’s Data Request No. 21 provided
25 broadband subscriber connections, technologies and download speeds but only for
26 the CenturyLink ILECs. Broadband subscriber connections, technologies and

⁶⁸ Brevitz, Exh. DB-3 (see Resp. No. 2).

⁶⁹ Brevitz, Exh. DB-4 (see Resp. No. 27).

⁷⁰ *Id.* (see Resp. Nos. 21, 22, and 23).

1 download speeds were not included for the CenturyLink and Lumen affiliates—
2 including Quantum Fiber—in response to Public Counsel’s Data Request Nos. 21
3 and 22. This leaves Public Counsel, Staff and the Commission with no way to
4 fully assess CenturyLink’s statement that “Landline competition is increasingly
5 furnished over fiber to the premises. Fiber customers have access to extremely
6 high-speed broadband offerings (*at speeds not available from CenturyLink*
7 *depending upon the location*) and, of course, voice services.”⁷¹

8 **Q. Hasn’t the traditional presentation of the benefits of telecommunications**
9 **competition in regulatory forums included advocating that consumers would**
10 **receive “better, cheaper, and faster variety of services” from competition?**

11 A. “Better, cheaper, faster service” was a common shorthand for the benefits of
12 competition that I recall from the 1980s when telecommunications competition
13 policy was being hotly debated before the FCC, state utility commissions and in
14 Congress. The Commission has an opportunity to reflect on the extent to which
15 those benefits have been achieved in the state of Washington, in CenturyLink’s
16 service territory. It appears that many consumers in rural areas have not yet seen
17 the promised benefits of “better, cheaper, faster service” from competition. The
18 Response Testimony of Stephanie K. Chase on behalf of the Public Counsel Unit
19 addresses the level of telecommunications consumer complaints received by the
20 Attorney General’s Consumer Resource Center. Complaints about CenturyLink
21 service are disproportionately higher than complaints received regarding other
22 telecommunications providers in Washington. The Commission should consider
23 this data in assessing whether rural customers in particular have received the
24 promised benefits of competition – better, cheaper and faster telecommunications
25 services.

⁷¹ *CenturyLink’s Petition*, ¶ 23, *emphasis added*.

1 **Q. Has technology change and telecommunications competition caused**
2 **CenturyLink to provide better, cheaper, faster telecommunications services**
3 **in the state of Washington?**

4 A. The picture in the state of Washington regarding the impact of technology change
5 and telecommunications competition appears to be mixed with a dividing line
6 between rural and urban markets. Urban consumers do appear generally to have
7 access to better, cheaper and faster telecommunications services while rural
8 customers often are captive to the copper networks deployed by CenturyLink
9 predecessors beginning over 100 years ago. CenturyLink has undergone several
10 corporate reorganizations including acquisitions and divestitures such that Lumen
11 is the new corporate entity managing three brands: Lumen (the flagship brand for
12 enterprise and wholesale markets), Quantum Fiber (fiber-based services to
13 residential and small business markets), and CenturyLink (the remaining states
14 with ILEC operations, “mass-marketed copper-based services, managed for cash
15 flow and optimal efficiency”).⁷² These latter services are in decline and cash is
16 being “harvested” from those services for deployment in other areas of the
17 business such as Lumen and Quantum Fiber markets. As indicated by complaint
18 data, rural wire centers appear not to be gaining “better, cheaper, faster
19 telecommunications services” from CenturyLink, so Commission oversight is
20 needed now as much as ever for these areas.

21 **Q. Is the “protected customer” mechanism⁷³ proposed by CenturyLink**
22 **sufficient to meet concerns regarding customers generally in rural areas that**
23 **are “captive” to CenturyLink’s copper network without reasonable**
24 **alternatives?**

25 A. No. The concept represents an acknowledgement that effective competition does
26 not exist in certain areas. Further, CenturyLink’s delineation of these areas is not
27 well founded in that it is based on the flawed competition study which counts

⁷² Brevitz, Exh. DB-5 at 6.

⁷³ Gose, Exh. PJG-1T at 36.

1 mobile wireless and fixed wireless as competitive alternatives and does not
2 correctly define “the market”. The result from this flawed basis is identification of
3 only 800 residential local service customers in the state of Washington as
4 “protected customers”. According to paragraph 44 of the Petition, the “protected
5 customer” concept is intended to apply to discontinuance of standalone residential
6 service according to CenturyLink. There is no discussion of whether this also
7 means DSL service would be discontinued which also utilizes the copper network,
8 which is token and inadequate. Furthermore, the term “area” as it applies to
9 “protected customers” is undefined. CenturyLink states it will use the same
10 definition of “area” that is used in the AFOR, but the term “area” was not defined
11 there. CenturyLink states in response to UTC Staff Data Request No. 57 it
12 “generally believes [“area”] to refer to a geographic region that could be as large
13 as a wire center and as small as a neighborhood or cable run.”⁷⁴

14 **Q. CenturyLink states at paragraph 44 of the Petition it “has not sought such**
15 **approval [for discontinuance of service] from the Commission during the**
16 **pendency of the current AFOR or the prior AFOR.” Should the Commission**
17 **take any assurance from this statement?**

18 A. No. This statement provides no assurance for the future that CenturyLink would
19 not in the future terminate service in rural areas without informing the
20 Commission or obtaining reasonable approvals from the Commission. Especially
21 with the recent reorganization of CenturyLink under the Lumen banner, and the
22 corporate focus on the Lumen and Quantum brands while “harvesting” the
23 CenturyLink mass markets (including the rural), and given the complaint data
24 presented in this case, the Commission should consider being explicit regarding
25 how and under what circumstances CenturyLink would be allowed to discontinue
26 service.

27 **Q. Do you support competitive classification for the CenturyLink companies?**

⁷⁴ Brevitz, Exh. DB-8 (CenturyLink’s Response to UTC Staff Data Request Nos. 56–57).

1 A. As a general conceptual matter I do not oppose competitive classification for
2 CenturyLink’s operations in urban or suburban areas which have a large enough
3 customer basis that supported competitive entry of competitors deploying fiber
4 optic facilities for “local loops”. But competitive classification for thinner markets
5 such as rural areas is not appropriate at this time since competitive entry in those
6 markets has not yet occurred, likely since revenues would not be sufficient to
7 support new capital investment in fiber optic cable and other serving technologies.
8 The Commission could reasonably draw “the line” between CenturyLink markets
9 where effective competition likely exists to justify competitive classification
10 versus the thinner markets where effective competition has not been demonstrated
11 to exist, whose customers remain captive to an aging copper network with little
12 prospect of operational attention or technology upgrade from CenturyLink.

13 **Q. Does this conclude your response testimony?**

14 A. Yes.