



PHIL BARNHART
STATE REPRESENTATIVE
CENTRAL LANE AND LINN COUNTIES

October 30, 2015

Public Utility Commission of Oregon
201 High St. SE, Ste. 100
Salem, Oregon 97301

RE: Docket AR 592 – Temporary Rules to Implement SB 611 as Amended by HB 2485 (2015)

Dear Commissioners,

This letter and the two attachments that accompany it are provided as my comment on the proposed rule referenced above.

I am objecting to the proposed rules in one very important regard, the definition of “broadband service” in the test of whether a company has provided gigabit service to a majority of its broadband customers. The proposed definition inappropriately sets a minimum download speed and thereby excludes many broadband subscribers the Legislature intended to include in the test, and which need to be included in order to carry out the intent of SB 611.

The Legislature establishes sideboards on special tax breaks for business so that the business has to accomplish some important state goal in order to earn the tax break. All offers of tax breaks in return for specific behavior, as in this instance, should be read strictly. Otherwise, the people (and other taxpayers) may receive neither the service the taxes would otherwise provide, nor the behavior of the tax break recipient that the Legislature intended. The intent of the legislation is to encourage companies to install gigabit service to a very broad base of their customers, using their current “residential broadband subscribers” as a basis point. The proposed definition modifies this basis point to substantially reduce the effort required for certain companies to obtain the tax exemption.

The Office of Legislative Counsel has responsibility for drafting acts of the legislature and responding to legislators’ questions about the meaning of words in statutes. Current Legislative Counsel, Dexter Johnson, makes clear in the attached memo that the meaning of “broadband” in SB 611 does not imply a minimum download speed, but refers to any internet connection that is always on and that is faster than a dial-up connection. Mr. Johnson explains in the memo that this interpretation is consistent with 36 other instances of the term “broadband” in the Oregon Revised Statutes, and explains why this is the only correct interpretation of the Legislature’s meaning of “broadband” in SB 611, based on the well-established rules of statutory construction. His interpretation based on those considerations conforms to mine.

Several perverse incentives arise from the proposed definition of “broadband” that obviously conflict with the clear intent of SB 611 as it pertains to huge rural parts of our state. The Legislative Revenue

District Office: PO Box 71188, Eugene, OR 97401, 541-607-9207, www.leg.state.or.us/barnhart
Capitol Office: State Capitol, Salem, OR 97301, 503-986-1411, rep.philbarnhart@state.or.us




Office (LRO) is the Legislature's nonpartisan expert on all things related to revenue and economics. As Kyle Easton of LRO points out in the attached memo, the proposed definition will likely cement the slow internet speeds that many rural subscribers now have into the future: companies that decide to take advantage of this tax break and follow the steps provided in the proposed rule will have a huge incentive to make sure that their subscribers whose speeds are under 10 mbps (and thereby not considered "broadband" customers) aren't offered speeds greater than 10 mbps, lest the company risk its tremendous tax break under SB 611. Delaying improved internet service to rural areas flies in the face of the clear intent of the Legislature to promote broad availability of faster service. It is the policy of the Legislature and the State to encourage the development of very fast internet for all of Oregon, a goal that the proposed rule could easily frustrate. No one can reasonably claim that the Legislature intended that result with SB 611.

One of the arguments made by the proponents of the proposed definition of 'broadband' is that using the broader definition will not create a workable incentive. The reality is new entrants into Oregon's broadband market will not be affected by this definition because they have no current broadband subscribers (see LRO memo). The proposed definition impacts two companies who currently have a significant subscriber base in Oregon. Some may be able to qualify for this exemption by offering gigabit to as few as 35% of the subscribers the legislature envisioned. On the other hand, the likely effect of using the broader definition of "broadband" would be to require those companies with significant rural service areas to expand the gigabit footprint farther than they would otherwise, without impeding the normal course of improvement of internet speeds in rural areas.

One of the values we all try to uphold is that of certainty. Statutes and rules should clearly instruct business what action will lead to a benefit. This proposed rule fosters uncertainty. Because the rule is controversial and will be subject to challenge, it increases uncertainty and requires companies to consider substantial risks that their property tax reduction will be litigated and potentially reversed because they rely on a rule later found to be flawed.

I hope these comments are helpful to the Commission and will lead to a change in the definition of "broadband" in the rule, to exclude reference to internet speed. I appreciate the time and attention that your staff has given to this matter and to my concerns. Unfortunately, staff reached a conclusion that does not conform to legislative intent and will negatively affect slower-speed rural broadband users in ways not intended by the Legislature.

Sincerely,


Phil Barnhart
Chair, House Committee on Revenue
Oregon House of Representatives



STATE OF OREGON
LEGISLATIVE COUNSEL COMMITTEE

October 27, 2015

Representative Phil Barnhart
900 Court Street NE H279
Salem OR 97301

Re: Meaning of term "broadband" in 2015 legislation

Dear Representative Barnhart:

You asked whether use of the term "broadband" in a draft administrative rule being considered by the Public Utility Commission is inconsistent with that same term, as used in enrolled Senate Bill 611 (2015),¹ as further amended by enrolled House Bill 2485 (2015).² We conclude that the answer is yes, and further conclude that the rule would likely be found invalid if challenged in court. In explaining our reasoning for this conclusion, we summarize the 2015 legislation in question below and explain the standards courts employ in interpreting statutory provisions. We also discuss the degrees of deference that courts give to state agencies that interpret statutory provisions through administrative rules and then apply those standards to the draft rule.

2015 Legislation

SB 611 established new property tax exemptions for the property of certain companies subject to central assessment under ORS 308.505 to 308.665, including a property tax exemption for "qualified projects" under section 5 of SB 611. A project is qualified under section 5 if, in part, the "project requires capital investment in [specified infrastructure] that enables the company [undertaking the project] to offer communication services, including a capacity of at least one gigabit per second symmetrical service, to a majority of the residential customers of the company's broadband services". Section 5 of SB 611 was subsequently amended in section 7 of HB 2485 to slightly modify the requirements for a qualified project. As modified, a project is qualified if new capital investment enables the company to "offer communication services, including *the capacity to provide, at least, approximately* one gigabit per second symmetrical service, to a majority of the residential customers of the company's broadband services." (Italics indicate new language inserted by HB 2485.) In other words, the qualified project exemption established in SB 611 and HB 2485 requires a company to offer communication services of at least approximately one gigabit per second service to a majority of the company's residential broadband service customers, in order for the property associated with the project to be exempt from taxation. The term "broadband services" is not used in any other location in either bill and is not defined in either bill.

¹ Chapter 23, Oregon Laws 2015.

² Chapter 31, Oregon Laws 2015.

Statutory interpretation

When a term is used in a statute but the term is not defined in the statute, the task is to ascertain legislative intent by applying rules of statutory construction established by the Oregon Supreme Court. Under those rules, courts employ three levels of analysis to discern legislative intent. At the first level of analysis, courts will consider the text and context of the law in question and, in the absence of a statutory definition or contextual evidence that a unique meaning is intended, will give words their plain and ordinary meaning.³ The second level of analysis involves considering any proffered legislative history of a provision. However, a court will only give legislative history the evaluative weight that the court considers helpful in discerning legislative intent.⁴ Finally, if legislative intent remains unclear after examining the text and context of a provision, a court will employ general maxims of statutory construction to resolve the ambiguity.⁵

The plain and ordinary meaning of the term “broadband” is “operating at, responsive to, or comprising a wide band of frequencies” or “of, relating to, or being a high-speed communications network and especially one in which a frequency range is divided into multiple independent channels for simultaneous transmission of signals (such as voice, data, or video).”⁶ The definition does not require a minimum speed for service to be considered broadband. When a statute employs technical or scientific terms, a court may substitute an authoritative description from a relevant professional source for the plain meaning of the term.⁷ The Federal Communications Commission has described “broadband” as “commonly refer[ing] to high-speed Internet access that is always on and faster than the traditional dial-up access.”⁸ Finally, as noted above, the first level of analysis consists of both the text and the context of that statute. Contextual evidence includes related statutory provisions in existence before the provision being construed.⁹ The term “broadband” appears 36 times in the 2013 edition of the ORS. Assuming for the sake of argument that all of these references are to some degree related to the provisions in SB 611/HB 2485, none of these 36 references modify “broadband” by affixing a specified minimum speed to communication services.

We are unable to conclusively review the legislative history of SB 611/HB2485 within the time available before this opinion must be delivered to you. A cursory examination of the materials available on OLIS did not shed any light on whether the legislature intended to apply any particular minimum speed to Internet service for that service to be considered broadband service.

Resort to the third level of statutory construction analysis — application of general maxims of statutory construction — is appropriate only when ambiguity remains concerning the meaning of the term in question. It is certainly arguable that no ambiguity exists concerning whether the term broadband requires a specified minimum speed as no use of the term in the ORS so provides, the plain meaning of the word does not suggest that a minimum speed is a requirement and authoritative technical sources do not suggest that a minimum speed is a requirement. One general maxim courts employ is to assume that the legislature intends words to be used consistently.¹⁰ Applying that maxim resolves any ambiguity in favor of a reading of the term “broadband” as not requiring a threshold minimum speed.

³ *PGE v. BOLI*, 317 Or. 606, 610-611 (1993).

⁴ *State v. Gaines*, 346 Or. 160, 170-172 (2009).

⁵ *Id.*

⁶ *Merriam-Webster Unabridged Online Dictionary*.

⁷ *Tharp v. Psychiatric Sec. Review Bd.*, 338 Or. 413, 423 (2005).

⁸ <https://www.fcc.gov/encyclopedia/types-broadband-connections> (last visited on 10/27/2015).

⁹ *Stull v. Hoke*, 326 Or. 79-80 (1997).

¹⁰ *State v. Holloway*, 138 Or. App. 260 (1995).

Proposed administrative rule

Draft OAR 860-200-0050¹¹ provides definitions for administrative rules that apply to a company seeking a qualified project determination and property tax exemption under section 5 of SB 611, as amended by HB 2543.¹² The rule defines “broadband service” as “the provision of data transmission technology that provides two-way data transmission to and from the Internet with a download speed equal to or greater than 10 megabits per second (Mbps) and an upload speed equal to or greater than 3 Mbps.” Thus, the definition in the rule establishes a minimum speed of transmission that must be satisfied before a communication service is considered a broadband service.

Standards of review of administrative rules

A state agency interprets and implements a statute through adoption of administrative rules and orders. The Oregon Supreme Court has identified three classes of statutory terms that determine the court’s standard of review to apply when courts review the rule or order:

(1) Terms of precise meaning, whether of common or technical parlance, for which an agency’s authority to interpret is limited to applying the term to specific facts and the court’s standard for review is to set aside the agency’s interpretation if the agency’s interpretation conflicts with the statutory use of the term;¹³

(2) Inexact terms, which require agency interpretation and judicial review for consistency with legislative policy;¹⁴ and

(3) Terms of delegation, which require legislative policy determination by the agency and judicial review of whether the policy is within the intent and scope of the delegation.¹⁵

Examples of terms of precise meaning include “male”, “Class II farmland” and “rodent”.¹⁶ By contrast, examples of inexact terms include “available”, “operator of a facility” and “earning capacity”.¹⁷ We conclude that “broadband services” as used in the draft rule is more likely a term of precise meaning and therefore is likely invalid because it conflicts with the statutory use of the term. The conflict is grounded in the rule’s requiring a minimum transmission speed, whereas the plain and ordinary meaning of the term broadband as used in the statute does not require a minimum transmission speed.

Please advise if we can be of further assistance.

The opinions written by the Legislative Counsel and the staff of the Legislative Counsel’s office are prepared solely for the purpose of assisting members of the Legislative Assembly in the

¹¹ Working copy draft of 10/20/2015

¹² Draft OAR 860-200-0005 (10/20/2015).

¹³ *Employment Division v. Ring*, 104 Or. App. 713, 718 (1990); see also *Springfield Education Ass’n v. Springfield School District*, 290 Or. 217, 224 (1980)

¹⁴ *Springfield*, at 223.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Jeld-Wen, Inc. v. Environmental Quality Comm’n*, 162 Or. App. 100, 104 (1999); *Vickers/Nelson & Assocs. v. Env’tl. Quality Comm’n*, 209 Or. App. 179, 185 (2006); *England v. Thunderbird*, 315 Or. 633, 638 (1993).

development and consideration of legislative matters. In performing their duties, the Legislative Counsel and the members of the staff of the Legislative Counsel's office have no authority to provide legal advice to any other person, group or entity. For this reason, this opinion should not be considered or used as legal advice by any person other than legislators in the conduct of legislative business. Public bodies and their officers and employees should seek and rely upon the advice and opinion of the Attorney General, district attorney, county counsel, city attorney or other retained counsel. Constituents and other private persons and entities should seek and rely upon the advice and opinion of private counsel.

Very truly yours,

A handwritten signature in black ink, appearing to read "Dexter A. Johnson". The signature is written in a cursive style with a long horizontal stroke at the end.

Dexter A. Johnson
Legislative Counsel

SB 611 (2015) – PUC Rule Implementation

Introduction

This background document was written in response to questions related to the temporary rules to implement SB 611 (2015) as proposed by the Public Utility Commission (PUC).

SB 611 (2015) created and made available new property tax exemptions to companies subject to central assessment. The specific exemption of concern in PUC’s rule making process relates to the exemption made available to existing and/or new companies that build, maintain and operate a qualified project in Oregon. This document provides a brief overview of the exemption and effects of proposed rules including:

- Background of exemption and key components
- Description of how the components relate to the rules being proposed by PUC, specifically PUC’s definition of “broadband service”
- Possible interpretations of PUC’s definition of “broadband service”
- Description of assumptions used in revenue impact statement for SB 611 and description of potential impacts resulting from PUC’s broadband service definition.

Exemption Background

The exemption provided in SB 611 (2015) and of concern in this document is the exemption provided to companies the build, maintain and operate a qualified project in Oregon. The qualified project exemption is contained within sections 5 and 6 of SB 611, and section 7 of HB 2485. Components of a qualified project are:

- Capital investment in newly constructed or installed real or tangible personal property
- Capacity to provide, at least, approximately one gigabit per second symmetrical service
- Communication services offered to a majority of the residential customers of the company’s broadband services
- Company not to deny access to the communication services to any group of residential customers because of income level of residential customers.

The value of the exemption will vary based upon each company’s tangible and intangible value. Below are two high level examples that demonstrate how the exemption is calculated and the lack of benefit available to lower valued communication companies.

Company with Unitary Oregon RMV > \$250M			Company with Unitary Oregon RMV < \$250M		
OR Unitary RMV	700,000,000	<i>Exemption= Unitary OR RMV - greater of \$250M or RMV of company's tangible property value.</i>	OR Unitary RMV	175,000,000	<i>Value increase shown for example purposes. Value after exemption cannot exceed OR unitary RMV.</i>
Tangible	425,000,000		Tangible	130,000,000	
Intangible	275,000,000		Intangible	45,000,000	
Exemption	275,000,000	\$700M - \$425M = \$275M	Exemption	-75,000,000	\$175M - \$250M = (\$75M)
RMV w/Exemption	425,000,000	\$700M - \$275M = \$425M	RMV w/Exemption ¹	250,000,000	\$175M - (\$75M) = \$250M

1: Increase in RMV is shown for example purposes, exemption calculation cannot result in increase in company's value, i.e. no increase in tax possible.

As the example illustrates, only higher value companies will potentially benefit from the exemption. In this simplified example, after applying the exemption, a qualifying company essentially becomes taxed based upon their tangible value.

PUC's Proposed Rule

SB 611 requires PUC to determine whether a project is a qualified project. This is done through an application process where a company will certify that the project meets the requirements described above. Based upon the application submitted to PUC along with any required accompanying documentation, PUC will determine whether the project is a qualified project. PUC's proposed rulemaking is in regards to this application and determination process.

One of the key requirements of the exemption qualification, and one of the more contentious components of PUC's proposed rule, regards the requirement that access to approximately one gigabit symmetrical communication service must be provided to a majority of a company's residential customers in order to qualify for the exemption. This requirement is of little effect to new companies interested in building a one gigabit symmetrical communication service. However, the requirement greatly impacts the qualification criteria for existing companies that may provide or are providing access to gigabit service. Only after a company provides access to gigabit service to a majority of the company's residential broadband customers will the company receive the exemption.

In the staff working copy of PUC's proposed rules, the definition of "broadband service" is defined as:

"Broadband service" means the provision of data transmission technology that provides two-way data transmission to and from the Internet with a download speed equal to or greater than 10 megabits per second (Mbps) and an upload speed equal to or greater than 3 Mbps.

The important component of this definition is the requirement for 10 Mbps download and 3 Mbps upload. Service provided with speeds at or above both of these requirements will be considered broadband, whereas anything slower than this speed combination will not. For customers receiving service below the 10↓3↑ Mbps, those customers will not be considered broadband and thus excluded from the denominator in the majority service calculation.

$$\text{Majority Service Calculation} = \frac{\# \text{ of residential customers with access to gigabit service}}{\# \text{ of residential broadband customers}}$$

The proposed PUC rule is unclear on the basis of the 10↓3↑ Mbps requirement and whether this speed requirement is based upon the advertised service provided, service available, or service actually received by customer. In describing the gigabit service, the language used in SB 611 and amended in HB 2485 used the phrase, "the capacity to provide at least approximately one gigabit". This reflects the fact that at any given time (especially at peak use) the service provided may not equal a gigabit. This is also true for existing broadband service. A report by the FCC details the variation in service level by type of service and company.¹ An examination of the importance of this distinction is presented in the Rule Implications section that follows.

¹ See FCC. (2014). A Report on Consumer Fixed Broadband Performance in the U.S. FCC Office of Engineering & Technology.

Rule Implications

PUC's working copy of their draft rule defines broadband service as being 10↓3↑ Mbps. What is unclear in the draft rule is whether the speed requirements refer to: 1) maximum advertised service speed available to customer 2) maximum advertised service speed customer purchases (purchased service plan's advertised speeds) or 3) service speed actually received. A further unknown, is how speed received would be measured: peak service speed, average speed received or minimum service speed received. 4) It is also unknown whether PUC views the 10↓3↑ Mbps as a static or dynamic definition. That is, will the 10↓3↑ potentially increase each year?

1) Maximum Advertised Service Speed Available to Customer

Table 1 below displays the maximum advertised download and upload speeds for the major internet providers (both wireline and wireless) in Oregon and the percent of households with access to service provider and designated speed. For example, 74.5% of households that have CenturyLink service available to them, have a maximum download service level available of 10 Mbps or greater. This does not represent actual customers, or the service they actually receive, just service availability. On the upload side, 41.0% of households with access to CenturyLink's service have access to 3 Mbps or greater upload from CenturyLink. These figures are as of June 30, 2014. The 10↓3↑ Mbps columns are grey shaded. As displayed in the table, applying PUC's 10↓3↑ threshold to service availability would limit the denominator in the majority service calculation to various extents depending upon company service levels. For some companies, 10↓3↑ is available in all serviceable households whereas for others nearly 60% of households with service availability do not receive 10↓3↑ and would therefore be excluded from the denominator.

Table 1

Oregon Maximum Advertised Download/Upload Speeds by Company, as of June 30, 2014

	Percentage of Customers with Availability at or Above Listed Mbps (Download)								
	768 Kbps	1.5 Mbps	3	6	10	25	50	100	1 Gig
AT&T Inc.	100.0%	100.0%	99.0%	91.2%	91.2%	0.0%	0.0%	0.0%	0.0%
CenturyLink	100.0%	99.6%	92.4%	83.2%	74.5%	41.8%	0.3%	0.3%	0.2%
Charter Comm.	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%
Comcast Corp.	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%
Frontier Comm.	100.0%	100.0%	100.0%	95.1%	78.3%	61.8%	61.8%	0.0%	0.0%
Verizon Comm.	100.0%	99.2%	99.2%	99.2%	99.2%	0.0%	0.0%	0.0%	0.0%

	Percentage of Customers with Availability at or Above Listed Mbps (Upload)								
	768 Kbps	1.5 Mbps	3	6	10	25	50	100	1 Gig
AT&T Inc.	100.0%	99.0%	91.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CenturyLink	99.0%	42.0%	41.0%	30.7%	30.7%	0.3%	0.3%	0.2%	0.2%
Charter Comm.	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Comcast Corp.	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Frontier Comm.	100.0%	78.3%	74.4%	61.8%	61.8%	0.0%	0.0%	0.0%	0.0%
Verizon Comm.	99.2%	99.2%	99.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: National Broadband Map <http://www.broadbandmap.gov/analyze>

2) *Maximum Advertised Service Speed Customer Purchases*

Tables 2a and 2b present information relating to the speed of service actually purchased by residential subscribers. Table 2a displays the percent of subscribers receiving service at or above a certain speed by service type (DSL, Cable, etc.). For example, Table 2a displays that nationwide, 87.7% of cable subscribers subscribe to service equal to or above 10 Mbps download. The total excluding wireless shows that nationwide, 69.6% of subscribers subscribing to a wireline service do so at a download speed ≥ 10 Mbps. The information contained in Table 2a is available only at the national level. Table 2b does however display totals including wireless for Oregon. This compares well with the nationwide figure, 44.2% - OR and 44.4% - nationwide.

Corresponding upload information was unavailable and the information is as of 12/31/2013. The information is still useful in illustrating that about 70% of wireline subscribers receive service equal to or greater than 10 Mbps download. This results in 30% of subscribers overall being removed from the denominator of the majority service calculation. Considerable variation also exists between services. Roughly 30% of DSL and mobile wireless subscribers receive service at or above 10 Mbps download whereas cable is closer to 90%.

Table 2a

Residential Connections by Download Speed Tier & Tech. U.S. As of Dec. 31, 2013								
	$\geq .768$ Mbps	≥ 1.5	≥ 3	≥ 6	≥ 10	≥ 25	≥ 100	
DSL	98.7%	90.8%	78.4%	50.2%	31.2%	1.0%	0.0%	
Other Wireline	95.5%	95.5%	90.9%	72.7%	59.1%	18.2%	13.6%	
Cable	99.8%	98.1%	97.1%	89.8%	87.7%	53.2%	0.9%	
FTTP	99.9%	98.8%	97.8%	94.3%	91.8%	38.9%	1.6%	
Satellite	22.8%	7.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Fixed Wireless	92.9%	77.2%	48.5%	16.9%	8.0%	0.3%	0.0%	
Mobile Wireless	84.7%	82.3%	70.3%	40.9%	30.8%	4.9%	0.0%	
Total	89.9%	87.0%	77.5%	53.6%	44.4%	15.4%	0.2%	
Excluding Wireless	99.4%	95.5%	90.8%	77.1%	69.6%	34.6%	0.7%	

Table 2b

Percentage of Connections by Download Speed Oregon As of Dec. 31, 2013				
	≥ 768 Kbps	≥ 3 Mbps	≥ 6	≥ 10
Oregon	88.5%	77.9%	52.4%	44.2%

Source: FCC, Internet Access Services: Status as of December 31, 2013

3) *Service Speed Actually Received*

SB 611 and HB 2485 contained the language “the capacity to provide at least, approximately one gigabit per second symmetrical service”. This language was used in part to reflect that service speed can vary, and that advertised peak service speed may not match service speed received at any given time. The PUC’s proposed broadband definition does not contain similar flexibility language regarding the 10 \downarrow 3 \uparrow requirement.

The FCC annually releases a report detailing among other things, broadband speeds received as compared to advertised.² Information contained in the 2014 report highlights the variability in peak, average and sustained speeds. Suffice to say, average and sustained speed can vary with different service types (i.e. DSL, Cable) and different providers more closely and consistently meet their advertised speeds. Lacking flexibility around the 10↓3↑ could, depending upon rule interpretation, further reduce the denominator.

4) 10↓3↑ Mbps, Static or Dynamic?

It is unknown at this time whether PUC views the 10↓3↑ threshold as a static or dynamic interpretation of broadband. During preliminary rule making meetings, PUC expressed interest in finding a middle ground that does not create such a high bar that firms will not pursue a qualified project. Through its own analysis, PUC found that about 70% of customers received a download speed of 10 Mbps or greater. The corresponding upload speed was not discussed. If PUC views a 70% threshold as the distinction between broadband, then it would be expected that the 10↓3↑ figure would adjust upward over time.

Potential Impacts on Revenue

The revenue impact statement for the B-engrossed version of SB 611 (2015) described and detailed the impact for the entire measure. The impact directly related to the qualified project investment portion stated:

The revenue impact does not include estimates for potential companies that could receive exemption under the qualified project investment exemption. This potential loss is not included because, while the exemption will be available to companies meeting the qualified project investment requirements, there is no assurance that an undertaking such as this will occur.

This estimate was based upon the assumption that for new and/or existing companies to qualify for the exemption, the gigabit service must be available to a majority of the company's residential broadband service customers. The definition of "broadband services" used in producing the revenue impact estimate was that the term "broadband" referred to all internet service other than dial-up. This is often referred to as "high-speed" internet. This interpretation of "broadband" is supported by description of the term on the Federal Communications Commission's (FCC) website and contained in FCC reports, the Oregon Broadband Advisory Council's use of the term and publications available on PUC's website.³

² For a copy of 2014 and past year reports, see <https://www.fcc.gov/measuring-broadband-america>

³ FCC website (<https://www.fcc.gov/encyclopedia/types-broadband-connections>) states "The term broadband commonly refers to high-speed Internet access that is always on and faster than the traditional dial-up access. Broadband includes several high-speed transmission technologies such as: DSL, cable modem, fiber, wireless, satellite & broadband over powerlines as types of broadband transmission technologies.

Contained in Appendix A, titled "What is Broadband?" in the Oregon Broadband Advisory Council's "Broadband in Oregon" report that was presented to the Senate Interim Committee on Business and Transportation on November 1, 2014, "Broadband is a general term used to represent a wide range of telecommunications technologies and services which utilize a faster data transmission rate than that available over the standard voice grade telephone line, which is 56 Kbps and usually less. Broadband is also widely referred to as "high-speed" Internet access service"... Many different technologies are employed to deliver broadband services in Oregon including Digital Subscriber Line (DSL), Cable-Modem, wireless (mobile 3G / 4G, fixed, satellite), and fiber to the

To evaluate the potential impact on revenue of the PUC's interpretation of "broadband service", the base for the comparison is the definition of broadband being anything other than dial-up.

As illustrated in the exemption examples presented on page 1, potential beneficiaries of the qualified project exemption are higher value existing communication companies that enhance/update their networks to make available symmetrical gigabit service and new entrants to the communication field that build and make available symmetrical gigabit service. For new entrants, the majority customer service threshold is of little to no concern as a new network will most likely make available gigabit service to all service areas. The majority customer service threshold is relevant to existing service providers that may enhance or expand their current networks.

The two interpretations of PUC's 10↓3↑ threshold that seem most reasonable, and therefore discussed here, are maximum advertised service speed available and maximum advertised service speed purchased by customer.

Looking at service speed availability as of June 30, 2014, (see Table 1 on page 3) the two existing companies most affected are CenturyLink and Frontier (both DSL providers). With a floor of 10↓3↑, CenturyLink would see roughly 40% of their customers considered broadband whereas Frontier would be closer to 75%. Using an example of 100 customers, under the 10↓3↑ definition, to qualify for exemption CenturyLink would have to provide symmetrical gigabit service availability to 21 potential customers rather than 51. For Frontier, the figure would be closer to 37 customers.

Cable providers Comcast and Charter and wireless providers AT&T and Verizon would be nearly unaffected. The two cable providers provide access at or above 10↓3↑ and AT&T and Verizon make available 10↓3↑ service to 91.2% and 99.2% respectively.

Looking at advertised service speed received by customer is more nuanced as data is not available by service provider but rather service type, and only at the national level. Based upon analysis of data download speeds (upload data unavailable) the impact of using a 10↓3↑ definition varies by service type. Referencing figures in Tables 2a & 2b on page 4, DSL is shown to be the service most affected. Nationally as of 12/31/2013, 31.2% of residential DSL customers were receiving service with download speeds at or above 10 Mbps. For Cable this figure is 87.7%. Using the same 100 customer example, this means on average, to meet the majority service calculation DSL providers would have to provide access to gigabit service to 16 rather than 51 customers and for Cable the figure would be 44.⁴

There is no expected immediate or near term impact upon revenue in using a definition of broadband that encompasses either service provided or service purchased at a minimum speed of 10↓3↑ Mbps. Referencing most recent available data, no existing communication provider is providing gigabit symmetrical service to anywhere near the majority customer threshold regardless of the basis being service available or service received. In the near term, existing providers are not expected to reach this

premises (FTTP). These service technologies range in transmission performance from 200 Kbps up to 1 billion bits per second (Gbps) and beyond." <http://www.puc.state.or.us/Pages/telecom/broadband.aspx>

In PUC's report, "Oregon Broadband Adoption", PUC often categories internet service as either home broadband or dial-up.

⁴ Service speeds provided by DSL providers can vary considerably and as such, so may the majority service calculation.

threshold.⁵ However, as technology changes and internet demands continue to increase, symmetrical gigabit service may become more mainstream. The largest demand on internet networks is driven from video streaming (Netflix, HBO Go, etc.), something of limited popularity a decade ago. A new technology requiring heavy internet usage could drive availability of symmetric gigabit service.

Specific provider network capacity future plans are unknown, however, what is known is that overall service speeds are expected to continually increase. The use of a 10↓3↑ broadband definition would make it easier for existing communication providers, that provide internet service at speeds below 10↓3↑, to qualify for the exemption. This could also create an incentive for existing providers to maintain speeds below the 10↓3↑ threshold in order to allow the provider to more quickly reach a majority service level requirement. As rural areas are more likely to utilize DSL for internet connectivity, existing regional disparities could be indirectly encouraged.

The impact upon property tax revenue is dependent first upon a company meeting the majority service calculation and then the value of a company's intangibles. Intangible value is non-disclosable, however, assuming generic levels of intangibles being 10%, 20% or 30% of overall company value could lead to revenue losses of hundreds of thousands to potentially millions of dollars. While no immediate impact upon revenue would be expected in using a 10↓3↑ definition of broadband, the potential for impact in later years is increased.

⁵ Cisco's most recent Visual Networking Index forecast expects 32% of fixed broadband connections to be faster than 50 Mbps in 2019. See http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html