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## BEFORE THE

## WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

| In the matter of the Petition of: | ) | DOCKET NO. UT-050778 |
| :---: | :---: | :---: |
| Douglas and Jessica Rupp; Kathie Dunn and | ) |  |
| Chris Hall; Michelle Lechuga; Verlin | ) |  |
| Jacobs; Anthony Williams; Christine and | ) |  |
| Samuel Inman; Robert Jacobs; and Sam | ) |  |
| Haverkemp and Chris Portrey, | ) |  |
|  | ) |  |
| Petitioners, | ) |  |
|  | ) |  |
| vs. | ) |  |
|  | ) |  |
| Verizon Northwest Inc., | ) |  |
|  |  |  |
| Respondent. |  |  |

RESPONSE TESTIMONY OF<br>CARL R. DANNER<br>ON BEHALF OF<br>VERIZON NORTHWEST INC.

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## I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.
A. My name is Carl R. Danner. I am a Director at Wilk \& Associates/LECG, LLC, 201 Mission Street, Suite 800, San Francisco, CA 94105.
Q. PLEASE SUMMARIZE YOUR BACKGROUND AND QUALIFICATIONS.
A. I was Advisor and Chief of Staff to Commissioner (and Commission President) G. Mitchell Wilk during his tenure at the California Public Utilities Commission (CPUC). Since leaving the CPUC, I have provided consulting services to various clients on regulation and policy, with emphases on the telecommunications and energy industries. I hold a Masters and Ph.D. in Public Policy from Harvard University, where my dissertation addressed the strategic management of telecommunications regulatory reform. At Harvard, I served as Head Teaching Assistant for graduate courses in microeconomics, econometrics and managerial economics. I hold an AB degree from Stanford University, where I graduated with distinction in both economics and political science. My experience includes researching and teaching regulation, advising regulators, testifying in regulatory proceedings, and advising clients on regulatory issues. My complete resume is attached as Exhibit CRD-2.
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## Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I have been asked by Verizon Northwest Inc. (Verizon) to provide an analysis from the standpoint of public policy and economics of the request by the Petitioners to expand Verizon's service area boundary to encompass their locations, and to provide telephone service to them under the Commission's line extension rule. ${ }^{1}$
Q. HAVE YOU PREVIOUSLY FILED TESTIMONY ADDRESSING SUCH ISSUES IN WASHINGTON?
A. Yes, I provided a similar analysis in Docket No. UT-011439, in which the Commission considered a waiver request by Verizon under the line extension rule. There, the Commission determined that a waiver should be granted in light of several factors, including the expense of the requested extensions, the small number of customers to be added to the network in that instance, the communications alternatives available, and the adverse impact on the ratepayers and the Company of requiring those extensions to be built. In essence, the Commission agreed that there is a point beyond which other customers and telephone companies should not be forced to pay the expense of costly telephone service to be provided to people living in remote locations.

I apply a similar analysis to the questions raised by this petition, with the added factor that the location in question is beyond Verizon's service area boundary.

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Q. WHAT IS YOUR CONCLUSION AND RECOMMENDATION TO THE COMMISSION?
A. As in the earlier case, I must conclude that sound economics, fairness, and good regulatory policy do not support expanding the service area and providing the service requested. This outcome is consistent with the Commission's finding in UT-011439. The proposed extensions in this case are quite expensive and well above the norm for what Verizon is spending in other instances under the Commission's line extension rule. Forty to fifty thousand dollars, per connection, is far more than the service would be worth to anyone, and it is too much to ask others to pay in order to create a much smaller benefit for the Petitioners. As well, there are some practical issues in this case that would create further difficulties for its construction.

Alternatively, I also discuss why good public policy and Commission precedent require that Verizon recover its full costs of providing service if instead the Commission decides that the service area boundary should be expanded to build the line extensions as Petitioners propose, notwithstanding that the overall public interest would suffer as a result.

## Q. WHAT PRACTICAL ISSUES ALSO POSE PROBLEMS IN THIS CASE?

A. There are other significant concerns:

- The Forest Service review and permitting process required for this project would be costly and would impose significant and uncertain delays;
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- The estimated costs of the project are somewhat uncertain and could be increased by mitigation measures the Forest Service or the County may require;
- Under applicable tariffs, the potential customers would be responsible for the cost of placing facilities from the road at the edge of the properties being served to their buildings. This distance is considerable for at least some of the properties. While Petitioners indicate a willingness to bear this expense or dig trenches themselves, this obligation may cause some difficulty in light of financial concerns the Petitioners have cited and perhaps reduce the number of subscribers.

Mr. Binney discusses these concerns in his testimony.

## Q. WHY IS DENIAL OF THE PETITION APPROPRIATE FROM AN ECONOMICS STANDPOINT ?

A. The cost to install wired lines from Verizon's existing facilities to this location is dramatically more than the service could be worth either to the subscribers in question or to customers generally. Practically speaking, the economic loss would not just be a matter of accounting or of subsidy flows, but would be measured in terms of lost goods and services to the people of Washington. These extensions are just not worth the expense, no matter who might end up footing the bill. The Commission reached a similar conclusion in UT-011439 based on the facts in that case, finding that in some instances the costs of a proposed extension can simply be too high.
$\qquad$ As well, it appears that satellite telephone service is feasible as an alternative for emergency calling and limited use at this location, and that VoIP service might be an option over a satellite Internet connection. Either of these alternatives would be far less costly.
Q. DOES WIRELESS SERVICE HELP THE PETITIONERS MEET THEIR COMMUNICATIONS NEEDS?
A. Yes, it does, as all of the Petitioners have wireless phones and presumably spend time regularly in locations where these phones work. ${ }^{2}$ They are not cut off entirely from such communications.
Q. WOULD GRANTING THE PETITION BE UNFAIR?
A. Under the Commission's line extension rule and applicable precedent, these extensions would be funded by other telecommunications customers. It is not fair to require customers to subsidize line extensions that will not benefit them (or anyone) in any way proportional to their cost.
Q. WHY DOES GOOD REGULATORY POLICY REQUIRE DENIAL OF THE PETITION?
A. Good regulatory policy should not require outcomes that are wasteful or unfair, as would occur if the petition were to be granted. As well, the effect of expanding Verizon's service territory against its wishes can only act to impose new burdens on Verizon in an

[^1]$\qquad$ (CRD-1T)
Docket No. UT-050778 environment where competition is both public policy, and fact. The Commission should have good reason to undertake such an action, which does not exist here.
Q. WHAT ABOUT THE INTERESTS OF THE PETITIONERS WHO HAVE REQUESTED THE SERVICE AREA EXPANSION AND LINE EXTENSIONS?
A. It is understandable that individual customers might want to try to obtain a benefit through intervention by the Commission. But we need to remember that this opportunity would have to be funded by other customers whose interests the Commission should protect.

## Q. IF THE COMMISSION WERE TO GRANT THE PETITION NOTWITHSTANDING

 THE PUBLIC INTEREST CONCERNS YOU HAVE IDENTIFIED AND VERIZON'S OTHER OBJECTIONS, WHAT COST RECOVERY SHOULD OCCUR?A. In that case, Verizon should be permitted to recover all of its costs for this extension through the "ITAC" (the rate element used for cost recovery in the Commission's line extension rule). The Commission has previously recognized that it is fair and in the public interest for regulated companies to recover the full expense of costly line extensions outside of their filed territories. ${ }^{3}$ Verizon's regulatory decisions also bear some relationship to financial obligations and expectations associated with its filed territory. Mr. Binney describes how those boundaries translate into concrete operational and financial decisions routinely made by Verizon. Therefore, it is only appropriate, and consistent with precedent, that Verizon recover its full cost of an extraordinary extension

[^2]$\qquad$ beyond its filed territory. In this case, those costs should also include future reinforcement expenses caused if line orders from this location lead to the exhaust of facilities that were originally sized to serve only the filed service area.

Put another way, the existing service area boundaries on file at the Commission will lose all meaning if companies can be forced to expand them, on request, to provide service beyond their limits under the rules or tariffs that are only to apply within those boundaries.

## Q. ARE THERE CONDITIONS THAT MIGHT BE PLACED ON APPROVAL OF THE PETITION THAT COULD HELP PROTECT THE PUBLIC INTEREST?

A. From the standpoint of public policy and economics, one possible condition comes to mind. If the public is to be asked to pay the extraordinary cost of these extensions in unfiled territory, it should be assured that the results will have some significant value to the Petitioners. The Commission could require that the Petitioners pay at least a fraction of the cost to demonstrate that these extensions are indeed a high priority to them. I would recommend a reasonable amount as ten percent of the total cost, or approximately $\$ 30,000$ apportioned between Petitioners as a whole. In that way each ninety cents other customers were forced to pay would be matched by a dime from those who stand to benefit. There appear to be lots in this vicinity that may not have buildings at this time. On the map, it looks as if a larger parcel was subdivided. The Commission could require a proportional contribution from anyone ordering new service to a different property in this location, including any new homes constructed in the subdivision. Such a
$\qquad$ (CRD-1T)
proportional contribution would be consistent with the Commission's requirement that the cost of extensions to developments "be borne by those who gain economic advantage from development and not by ratepayers in general." ${ }^{4}$

Without knowing about all the factors that might affect the value of these properties, I would note that they are located in a scenic area within about a two hours' drive from the Seattle metropolitan area. It would follow that wired telephone service may increase the attractiveness of these properties as a place to maintain a home or vacation residence. The Petitioners may also find their property values increased if wired service is provided.

I would propose that such contributions be returned to other customers through an offset to the ITAC.

## Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. In Section II, I describe the economic principles associated with a line extension request. This section parallels a similar discussion from my testimony in UT-011439. In Section III, I address some other concerns raised by Petitioners before offering a brief conclusion in Section IV.

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## II. ECONOMIC PRINCIPLES THAT APPLY TO THIS CASE

## Q. WHAT BASIC PRINCIPLES OF ECONOMICS APPLY TO THIS SITUATION?

A. Two of the fundamental principles of economics are as follows:

1. People face tradeoffs - to get one thing that we like, we usually have to give up another thing we like.
2. The cost of something is what you give up to get it. ${ }^{5}$

The first principle is dictated by the reality that resources are limited. There are not enough goods and services in the world to give everyone everything they might want. We must choose.

The second principle affirms the consequence of choice. By deciding to have one thing, we consume resources that could have been used to create something else. The genuine cost of anything is not the dollars spent to acquire it, but the loss of other things that one could have had instead. For example, if a government agency adopts policies to promote building more housing, then the raw materials and labor used in that process will be diverted from creating something else. It does not matter how the housing is paid for; carpenters working on a billionaire's mansion are just as unavailable for other purposes as their counterparts who might be erecting subsidized low-income housing.

[^4]$\qquad$ (CRD-1T)
Q. HOW DO THESE PRINCIPLES OF ECONOMICS APPLY TO TELEPHONE LINE EXTENSIONS?
A. Building a telephone line extension uses up real resources. The equipment and supplies and the labor of the numerous people involved create a new telephone line instead of other goods or services for the people of Washington. Thus, the expenses testified to by Mr. Binney do not represent just an abstract concept. If the Commission were to order the construction of these line extensions, costly resources would be consumed in the process regardless of who paid the bill for the construction - whether it is the telephone company, customers generally, taxpayers, or the particular customer who is getting the new telephone line. ${ }^{6}$ Neither would any additional universal service support, even if available, change the reality of consuming these resources.
Q. WHEN DOES IT MAKE ECONOMIC SENSE TO USE UP RESOURCES TO CREATE SOMETHING LIKE A LINE EXTENSION?
A. Just as for any decision to build something or deliver a service, it makes economic sense to proceed when the result is more valuable than what is consumed in making it. If a dollar's worth of resources is used to create a product that is worth two dollars to a consumer, that is a gain. If a dollar's worth of goods is used to create something that is worth only fifty cents to a consumer, that is a loss, and we would have been better off just keeping the dollar's worth of resources with which we started.

[^5]$\qquad$ The beauty of the American economy is that it is pretty good at adding value in the process of making goods or creating services for people. That is what drives the measured output of the economy. Every time a dollar's worth of resources is turned into a product that sells for two dollars, people get better off and the economy gains.
Q. WHAT IS THE VALUE OF A PRODUCT OR SERVICE TO A CONSUMER?
A. Consumers determine value by deciding how much they are willing to pay for something - really, what else they are willing to forego. This decision is based on tradeoffs consumers face. For example, a consumer might look at a dozen apples and decide that they are at least as attractive as anything else he might find for five dollars. In that case, the apples are worth five dollars and a consumer would benefit if he could buy them for (say) three dollars. Consumers make these kinds of tradeoffs all the time.

Note that value is determined by the maximum a consumer would be willing to pay, not a lower amount he actually pays. That is why buying things makes people better off. If the apples were only worth three dollars to the consumer, then buying them would involve trading three dollars for three dollars - in other words, a no-gain situation. In the more usual situation, the consumer pays less than the value he gets, and ends up ahead. So, value is related to the maximum someone is willing to pay for a service, not necessarily the price he happens to pay.
Q. IS TELEPHONE SERVICE WORTH MORE TO CUSTOMERS THAN THE TARIFFED PRICE THEY PAY?
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A. For most customers, the answer clearly is yes. We know this because price elasticity studies show that most customers would keep telephone service even if its price increased significantly. Thus, on average the value of telephone service must be higher than its current, tariffed price.
Q. ARE THERE CUSTOMERS FOR WHOM TELEPHONE SERVICE IS WORTH ABOUT WHAT THEY ARE NOW PAYING, OR LESS?
A. Clearly so. There is a relatively small group of consumers who do not see very much value in telephone service. These are the customers who might drop service in response to even a small price increase, or who have no service at all. For example, in my early years on staff at the CPUC I worked with one person who lived in a cabin and did not have a telephone, even though service was available to him. He said he would have found a telephone intrusive at his home.
Q. IS VALUE CREATED FOR OTHER SUBSCRIBERS OF A TELEPHONE NETWORK WHEN A NEW SUBSCRIBER TAKES TELEPHONE SERVICE?
A. It is often suggested that an "externality" value is created when a telephone network gets larger, because (on average) the larger the network, the more valuable it is to any given subscriber. Of course, this works both ways: new subscribers also gain by being able to call the old subscribers. In any event, in principle the value of telephone service should include its value to the customer in question, plus the externality value of that customer to other subscribers.
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However, it is also my experience that this externality value is usually spoken of only in the abstract; those who discuss it cannot say how large it is in dollars and cents. A study by the late Lewis Perl is the only analysis of which I am aware that allows one to make an estimate of how much that externality is actually worth, as Professor Woroch of U.C. Berkeley described in a recent survey article:

In his study, Perl (1983) found that demand for residential access was increasing in the density of phone subscription in a household's local calling area, confirming the presence of a network externality. The effect was small, however, as might be expected given the high U.S. telephone penetration rates during the sample period. Furthermore, unlike the earlier competitive experience, all networks were interconnected, further realising the available network externalities. ${ }^{7}$

Based on a study of 1980 data about telephone demand for a large sample of U.S. households, Dr. Perl calculated a rough estimate that a subsidy of between $\$ 2$ and $\$ 7$ per month to any given subscriber would account for the externality value that subscriber would bring to the network (and hence to other customers collectively). ${ }^{8}$ Clearly, this value is orders of magnitude less than would be needed to justify the costs under discussion in this case. ${ }^{9}$

[^6]
## Verizon NW Response

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$\qquad$ (CRD-1T)

Aside from the numerical results of Dr. Perl's study, there are some common-sense explanations as to why this externality value has to be relatively small. As Professor Woroch notes, a network achieves most of its potential value once most people are subscribers; at that point, adding the relatively few customers who still lack service may not add much more value to the network as a whole. Indeed, we are past the time when most people have to wonder whether the people they want to call will also have a telephone - which is the essence of the externality question.

## Q. ARE THERE WAYS TO LEARN WHAT TELEPHONE SERVICE MAY BE WORTH TO A CUSTOMER?

A. As I noted above, the full value of telephone service to customers is not evident from the tariffed price they pay. However, we can at least set a ceiling for that value if a customer does not buy the service at a particular price. For example, my former colleague at the CPUC could have had telephone service for about \$10-15 a month, but chose not to. That decision showed that telephone service was worth less than \$10-15 a month to him. Now that wireless and other alternatives are available (they were not at the time of this example), the value of having any one kind of service (such as a wired telephone) has been reduced because other options limit what a customer would pay for one technology in particular. Even an alternative of higher cost and/or lower quality can reduce what a customer would be willing to pay for a wired line.
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As another approach building on this analysis, we can start with what the line extension would cost, and ask whether it is at all reasonable to believe that service could possibly be worth that much.

## Q. HOW MUCH WOULD THE LINE EXTENSION COST?

A. As Mr. Binney reports, the estimated total investment cost is approximately $\$ 300,000$ for seven customers -- or, roughly $\$ 43,000$ per connection based on the current estimate. In terms of a monthly revenue requirement, the service would need to be priced at roughly $\$ 700$ per month, per customer, to justify that amount of investment even leaving aside any recurring or maintenance expenses. ${ }^{10}$
Q. IS THERE ANY CHANCE THAT THE VALUE CREATED BY THE EXTENSIONS WOULD EQUAL OR EXCEED THEIR COST?
A. I do not believe there is any reasonable way to conclude that these extensions would create as much as $\$ 43,000$ of value for each customer.
Q. IS THERE DATA THAT CAN HELP DETERMINE WHAT THIS SERVICE COULD POTENTIALLY BE WORTH TO A CUSTOMER?
A. I understand that the Petitioners were not willing to pay a deposit towards the full cost of construction of an extension. While this is perfectly understandable, it does show that the value of the service to them is less than what it would cost to provide.

[^7]$\qquad$ (CRD-1T)

Several of the Petitioners indicated that they regarded satellite telephone service as unaffordable. Two petitioners had satellite service and discontinued it, in part because of the cost (cited in one instance as $\$ 60 /$ month for 30 free minutes, and then $\$ 1.89 /$ minute afterwards). As satellite service would permit emergency calling and a limited number of high-value calls, it probably is accurate to say that most of the petitioners regard that aspect of telephone service to be worth less than $\$ 60 /$ month.

To go a step further, we can consider what it would mean to assume a value that each customer might place on the service that is significant but less than the $\$ 43,000$ cost. If, for example, all seven customers were willing to pay $\$ 5,000$ each - still a considerable sum - then the service would be worth just over a dime out of every dollar spent to provide it to those seven customers. In my opinion, turning dollars into dimes is not good public policy. ${ }^{11}$

It is understandable, of course, why the customers in question may not have wanted to or been able to - come up with a sum as large as $\$ 300,000$ to obtain wired telephone service. It ought to be equally understandable to question why, in that case, other customers should be asked to come up with that amount to provide it.

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## III. OTHER CONCERNS PRESENTED BY PETITIONERS

## Q. DOES YOUR ANALYSIS TREAT THE PETITIONERS IN THIS CASE FAIRLY WITH RESPECT TO THEIR CHOICE OF A RURAL LIFESTYLE?

A. Yes, I believe it does. Some people find value in living in remote or isolated locations, but there are tradeoffs involved -- such as peace and quiet versus limited social opportunities, natural beauty versus limited cultural and entertainment options, freedom from urban stress versus distance from specialist medical care, etc. Similarly, from a more tangible perspective, while remote property or housing may be relatively inexpensive, the cost of connecting to fixed utility networks may be very high and render such service impractical from an economic standpoint. The lack of any other fixed utility services to this location (e.g. electricity) speaks to that cost and difficulty in this instance.

It is not the Commission's role (or my role) to tell people where they should live, or how they should manage the tradeoffs that come with different lifestyles or locations. But it is the Commission's responsibility to enforce some reasonable bounds - based on economics and fairness to those who would foot the bill - that can then be relied upon by customers in making their own choices about the costs and benefits of remote living. The earlier waiver case decision began to do this.
Q. HOW SHOULD THE COMMISSION CONSIDER THE CONCERNS PRESENTED BY PUBLIC SAFETY WITNESSES FOR THE PETITIONERS?
$\qquad$ (CRD-1T)
A. As the testimony indicates, emergency responses to isolated rural areas can be inherently more problematic than in town, a fact that people should consider when choosing to live in an isolated location. However, whether these concerns justify such an enormous expenditure on home phone service to one location is a question this testimony does not address. The testimony does not state (for example) whether these local officials would use an extra $\$ 300,000$, if available, to put private telephones in petitioners’ residences instead of advancing other public safety priorities such as emergency roadside phones accessible to all. Also, Ms. Dunn and Mr. Hall noted that response time by local authorities is a problem even when calling 911 from a pay telephone, which suggests that communications are not always the issue for getting immediate help in a remote location. ${ }^{12}$
Q. COULD A SATELLITE TELEPHONE PROVIDE A USEFUL ALTERNATIVE TO PETITIONERS FOR EMERGENCY COMMUNICATIONS?
A. Yes, I believe it could. Ms. Dunn and Mr. Hall note at least one instance where they summoned help using a satellite phone. ${ }^{13}$ Mr. Rupp and Ms. Inman have also used a satellite phone in the past, although they were dissatisfied with its quality and cost. ${ }^{14}$ For example, Globalstar satellite service starts at $\$ 50$ /month with 50 included minutes, while an Iridium plan with 20 minutes/month is $\$ 53.99 .{ }^{15}$ One or two such phones could be

[^9]Verizon NW Response
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$\qquad$ (CRD-1T) maintained by the Petitioners for emergency purposes, and perhaps kept in different residences or in a lock box to which all Petitioners would have keys.

## Q. IS VOICE OVER INTERNET PROTOCOL (VoIP) SERVICE AN OPTION?

A. There is a special satellite Internet service (operated over the Direcway system) that is a promising option. The provider is Ground Control, http://www.groundcontrol.com (accessed February 20, 2006) (See Exhibit CRD-7). This provider supports a specific VoIP offering that works well with its Internet access, and reports that other independent VoIP offerings (such as Vonage) will also work over the service if configured properly. The associated equipment and service is much less costly than extending wired telephone service to this location. The result, according to the provider, is good quality voice service with a similar latency to that of a satellite phone. The provider offers different sized dishes, and notes that larger options perform better in adverse weather conditions. A . 98 meter "Professional" dish is $\$ 1500$ to $\$ 1700$ including installation (which may be similar to the Direcway system Mr. Rupp now employs), and is engineered to perform well in adverse weather conditions. Mobile versions of alternative dish sizes are also available for a higher cost. Monthly service options for high-speed Internet access range from $\$ 59$ to $\$ 260$ per month, in addition to a subscription cost for the VoIP service to be obtained separately.
$\qquad$ (CRD-1T)
Q. PETITIONERS OFFER TESTIMONY THAT STATES A "PRELIMINARY DETERMINATION" THAT THEIR LOCATION CONSTITUTES A "COMMUNITY OR A PORTION OF A COMMUNITY." IS THIS PERSUASIVE?
A. I do not believe so, for several reasons.

As a starting point, Professor Jussaume observes that numerous definitions of "community" exist. In response to this diversity of opinion, he identifies two attributes he believes all definitions share - that a community be comprised of people, and that those people interact socially. In effect, Professor Jussaume adopts a least common denominator approach by saying that a "community" is to be found if the smallest possible set of related criteria can be satisfied.

However, Professor Jussaume’s opinion appears to be based on facts that are almost selfevident from the petition, i.e. that the petitioners live near one another and communicate well enough to know each others' names, share a few common tasks and socialize to an extent. In other words, the definition suggested by Professor Jussaume appears almost circular, in that any group organized enough to present a petition would likely qualify under these criteria. Neither is Professor Jussaume able to state how many households constitute the smallest community he would define under these criteria, leaving open the possibility that a single household could suffice - in his view -- if it contained a few people who spoke to one another. ${ }^{16}$ This approach is vague and highly subjective.

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At the same time, the "community" the Petitioners wish to describe is very small, and apparently contains no retail establishments or places of business, formal community organizations, schools or churches, or governmental offices. Neither does Skyko 2 appear on any maps of the area that Petitioners are aware of, or that Verizon staff and I were able to review. ${ }^{17}$

For its part, if Congress had wanted to define Section 214(e)3 as expansively as Professor Jussaume effectively suggests, it could merely have stated that any small number of potential subscribers located anywhere in the countryside (or on a mountaintop, etc.) should be provided highly-subsidized telephone service upon joint request. But Congress did not say that.
Q. HAS THE COMMISSION STATED THAT COST LEVELS SHOULD BE CONSIDERED AS PART OF AN ANALYSIS OF POTENTIAL ADDITIONS TO COMPANY SERVICE AREAS?
A. Yes, it has. The implementation of the universal service provisions of the Telecommunications Act of 1996 began with a comment and review process by the Federal-State Joint Board on Universal Service. The Commission stated the following with regard to unserved areas:
"[O]ur initial comments detailed the potentially significant costs involved in providing mandated universal service features to "every" customer (WUTC Comments, page 8). That scenario involved customers already receiving service. An additional problem is the extension of service to unserved areas. Washington

[^11]Verizon NW Response
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State has areas that are so "high cost" that they are simply not economical to serve. One such area is Libby Creek, a small community of about a dozen families on the eastern side of the Cascade Mountains, isolated without even basic telephone services. Neither of the two closest LECs (PTI or USWC) have volunteered to serve these customers, despite the existence of universal service support. The estimated cost for PTI to install facilities to serve the community is approximately $\$ 8,000$ per customer, with a monthly revenue requirement of \$260 per access line. The Commission has worked long and hard to find a solution to providing service in this area but has not been successful to date. In our view, however, the Joint Board and the FCC should be wary of adopting definitions and support mechanisms which will require this type of service extension to be subsidized by customers and providers through the universal service fund no matter what the cost. The Libby Creek example also illustrates the kind of special local problems which will be difficult if not impossible for the FCC to deal with in a centralized way from Washington, D.C. ${ }^{18}$

In other words, the Commission stated that interpretations of Section 214(e)3 should not proceed in a vacuum with regard to costs or other local problems that may be involved in a given case. While these comments preceded the Commission's later adoption of its line extension rule, the principles the Commission articulated were reaffirmed in UT-011439. The Commission has also modified its definition of an unacceptable expense since that time, and Verizon now routinely builds line extensions as costly as those cited above. However, as the figures in this case are extraordinarily high, the Commission should consider the question of excessive cost in any deliberation about Section 214(e)3.

## IV. CONCLUSION

Q. IS VERIZON'S POSITION CONSISTENT WITH THE INTENT OF THE COMMISSION'S LINE EXTENSION POLICY?

[^12]$\qquad$ (CRD-1T)
A. Yes. Although the line extension rule does not apply to Verizon outside of its filed service territory, Verizon's position in this case is consistent with the policy intent behind that rule (including the Commission's interpretation of the waiver provision in UT011439), and is even more compelling given that Verizon is being asked by Petitioners to extend beyond its service area boundary. Verizon has built dozens of in-service-area line extensions under the rule , including many that would probably fail the test of creating enough customer value to offset their expense. However, in this case Verizon opposes an expansion of its service territory as a means to require the construction of especially costly line extensions whose burdens on other customers and the economy cannot be justified. Indeed, this proposal would represent a highly inefficient way to transfer money from the general body of customers to these potential subscribers. For every dollar taken from a customer paying the subsidy, the recipients will likely gain just pennies in value. The rest will be wasted.

## Q. WHY ARE EXCHANGE BOUNDARIES PARTICULARLY SIGNIFICANT IN

 TODAY'S COMPETITIVE ENVIRONMENT?A. Years ago, service area boundaries defined monopolies within which local telephone companies had an obligation to serve, but within which they would also be protected from competition. Today, only the obligation is left. As noted above and by Mr. Binney, Verizon relies on these boundaries to design its network and plan its facilities, and ultimately as a factor in understanding its financial circumstances and prospects and making related decisions (including regulatory matters such as the recently concluded rate case). The Commission should recognize the significance of these boundaries as one
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5 Q. DOES THAT COMPLETE YOUR RESPONSE TESTIMONY?
6 A. Yes.


[^0]:    ${ }^{1}$ My presentation of this analysis does not suggest any waiver by Verizon of any of its objections to the petition.
    Verizon NW Response
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[^1]:    ${ }^{2}$ Petitioners' responses to Verizon data request no. 16. See Exhibit CRD-3.
    Verizon NW Response
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[^2]:    ${ }^{3}$ See the Fourth Supplemental Order in Docket No. UT-991931 (June 28, 2000).

[^3]:    ${ }^{4}$ WAC 480-120-071(6).

[^4]:    ${ }^{5}$ These are the first two of the "Ten Principles of Economics" described in Mankiw, N. Gregory. Principles of Economics (The Dryden Press, 1998), chapter 1.

    Verizon NW Response
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[^5]:    ${ }^{6}$ I focus on the initial construction costs of the extensions because they are so large, and because it is evident that they could never be recovered from typical residential telephone bills. Mr. Binney's testimony describes reasons why the on-going maintenance of these lines would be costly, as well.

[^6]:    ${ }^{7}$ Woroch, Glenn A. "Local Network Competition," in Cave, Martin, Majumdar, Sumit, and Ingo Vogelsang. Handbook of Telecommunications Economics (Elsevier Publishing, 2002). Accessed via http://elsa.berkeley.edu/users/woroch/local\%20competition.pdf on February 7, 2006.
    ${ }^{8}$ Perl, L.J. "Residential Demand for Telephone Service, Central Services Organization, Inc. of the Bell Operating Companies" (1983).
    ${ }^{9}$ Today's higher telephone subscribership might reduce Dr. Perl's estimates further. Nationwide telephone penetration grew from 91.6 percent in 1984, to 93.8 percent in 2004. Comparable figures for Washington were 93.0 percent in 1984 and 95.5 percent in 2004. FCC, Trends in Telephone Service (June, 2005), table 16.2. Additionally, over 200 million wireless phones are now in service (www.ctia.org, accessed February 7, 2006).

[^7]:    ${ }^{10}$ This calculation is based on the total investment cost of the proposed extension.
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[^8]:    ${ }^{11}$ Mr. Rupp may be an exception to this point, as he indicates (in data responses) a willingness to bear substantial costs to obtain service.

[^9]:    ${ }^{12}$ Dunn/Hall, page 3.
    ${ }_{14}^{13}$ Dunn/Hall, page 4.
    14 "Phone Service Eludes Homes," Everett Herald, December 31, 2005
    (http://www.heraldnet.com/stories/05/12/31/100loc_aphones001.cfm, accessed February 17, 2006.)(See Exhibit CRD-4); Ms. Inman's response to Verizon data request No. 10 (See Exhibit CRD-5).
    ${ }^{15} \mathrm{http}: / / \mathrm{www}$.satphonestore.com/, accessed February 24, 2006. Handsets range from about \$300 --\$700 for Globalstar, and about $\$ 1,150$ to $\$ 1500$ for Iridium (lower ends of ranges are for used equipment) (See Exhibit CRD$6)$.

[^10]:    ${ }^{16}$ Response to Verizon data request no. 46. See Exhibit CRD-8.
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[^11]:    ${ }^{17}$ Petitioners' responses to Verizon data request nos. 30-32.

[^12]:    ${ }^{18}$ In the Matter of Federal-State Joint Board on Universal Service, FCC 96-93; CC Docket 96-45. "Reply Comments of the Washington Utilities and Transportation Commission," May 6, 1996, pages 3-4 (notes omitted).

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