EXHIBIT NO. _____ (PBC-13T)

**BEFORE THE**
**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

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| **In the Matter of the Petition of Qwest Corporation to Initiate a Mass-Market Switching and Dedicated Transport Case Pursuant to the Triennial Review Order** | **Docket No. UT-033044** |

# REBUTTAL TESTIMONY OF

# PETER B. COPELAND

# ON BEHALF OF

# QWEST CORPORATION

**FEBRUARY 20, 2004**

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## I. EXECUTIVE SUMMARY

In their responsive testimony, AT&T witnesses William Lehr/Lee Selwyn and Michael Baranowski offer numerous unwarranted criticisms of Qwest's CPRO model. In my rebuttal testimony, I respond to those arguments. In so doing, I provide additional information addressing the fundamental differences between the business case models presented by Qwest ("CPRO") and AT&T ("BCAT"). I demonstrate that:

- Qwest's economic model fully complies with the requirements of the TRO and provides reliable estimates of the economic performance of an efficient CLEC that self-provisions switching in Washington markets; and
- In its BCAT model, AT&T uses inputs that violate the requirements of the TRO and are not supported by reliable data or experience.

My testimony specifically rebuts the many misplaced criticisms of CPRO by AT&T witnesses. I also address an issue raised by Staff witness Thomas Spinks. In responding to the criticisms of AT&T witnesses, I demonstrate the validity of the following points:

- **CPRO revenues are reasonable, while BCAT revenues are vastly understated.** I demonstrate that the CPRO revenues are entirely consistent with the real world strategy of CLECs to seek high revenue customers. Statements by AT&T executives, for example, repeatedly emphasize AT&T's targeted effort to attract and retain high-value customers to their bundled service offerings. While AT&T assumes low-end revenues in its model, its own website makes clear that its practice is to seek only high-revenue customers. Its website does not even mention its low-end offerings. This stands in stark contrast to the BCAT approach of assuming that CLECs seek low-revenue customers, and then to

assume that average revenues will decline rapidly in the next few years while inexplicably also assuming decreases in demand.

- **The churn rate assumed in CPRO is reasonable and consistent with other CPRO inputs.** My testimony provides additional evidence that demonstrates that the 3 percent churn rate in CPRO is reasonable and that the 4.6 percent rate in BCAT is significantly overstated. Indeed, I cite a recent Banc of America analysis of AT&T that demonstrates the higher rate assumed by AT&T is a short-term phenomenon that is quickly followed by a churn rate that is actually lower than the rate assumed in CPRO. Over the five-year active period modeled by CPRO, the 3 percent is clearly reasonable. I also provide information from CLECs actually serving mass market customers that demonstrates that real world churn rates are far lower than 4.6 percent.

- **The time horizons used in CPRO are entirely consistent with sound modeling practices.** I demonstrate that the criticisms of Drs. Lehr and Selwyn are based on an incorrect interpretation of the CRPO model and are inconsistent with sound financial analysis. For example, I demonstrate that a proper estimate of the value of a firm takes place in two parts: (1) an estimate of free cash flows to a horizon where the firm reaches a steady state; and, (2) the value of the enterprise at that horizon (i.e., terminal value). The five-year active period of CRPO is the first part of the analysis. The 25-year horizon performs the latter function. I demonstrate that using the 25-year horizon is more conservative than using the standard discounted cash flow perpetuity calculation. Proper financial modeling practices indicate that one or the other should be done in valuing an enterprise. In CPRO, Qwest chose the more conservative approach. CPRO is completely consistent with the TRO and on widely-accepted financial modeling principles. I also show that the other arguments advanced by the AT&T witnesses are based on factual errors and are inconsistent with proper financial modeling practices.

- **CPRO's market entry assumptions are valid.** I testify that CPRO's MSA market entry assumption is valid and that the model validates that an efficient CLEC can economically enter and serve six MSAs in Washington. I rebut AT&T's suggestion that a switch should be modeled to serve each of the five MSAs in the Seattle LATA - a single switch to serve all five MSAs is clearly the method an efficient CLEC would adopt. I also point out the inconsistency of Mr. Baranowski criticizing the level of switching efficiency in CPRO, while at the same time AT&T advocates a broader market that implies even greater efficiencies than are modeled in CPRO.

- **CPRO's transport assumptions are valid.** I demonstrate that AT&T's use of special access rates in BCAT is unjustified and overstates costs. UNE transport rates are lower than special access rates and none of the transport routes as to which Qwest is seeking transport relief is modeled in CPRO. I also show that CPRO has taken into account non-recurring charges, such as the charges associated with grooming and de-muxing.

- **CPRO's assumptions relating to economies of scale associated with operation support systems ("OSSs") are valid**. I show that AT&T's claim that Qwest is modeling a start-up CLEC is simply wrong and that Qwest has appropriately modeled OSS costs on the assumption that portions of the cost are borne by broader operations in other markets.

- **Other CPRO inputs are valid.** Finally, I demonstrate that AT&T's criticism of CPRO's customer acquisition costs is inconsistent with a third party report relied upon by other AT&T witnesses and that AT&T improperly cites a single piece of data in order to create an incorrect and unsupported inference that CPRO overstates customer acquisition costs. CPRO, on the other hand, provides the complete analysis and its underlying assumption is valid. I also point out other errors in the way AT&T witnesses have characterized CPRO.

The structure of CPRO is based sound modeling practices, and the inputs to the model are realistic and consistent with the requirements of the TRO. It should, therefore, be relied upon by the Commission.

## II. PURPOSE OF TESTIMONY

**Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?**

A. Yes. I filed direct testimony on December 22, 2003 in which I presented Qwest's business case model, CPRO. In addition, I filed response testimony on February 2, 2004 in which I addressed some of the flaws in AT&T's business case model.

**Q. WHAT IS THE PURPOSE OF THIS REBUTTAL TESTIMONY?**

A. My rebuttal testimony further addresses the fundamental differences between the business case models presented by Qwest and AT&T. In my testimony, I demonstrate that: (1) Qwest's economic model fully complies with the requirements of the TRO and provides reliable estimates of the economic performance of an efficient CLEC that self-provisions unbundled switching in Washington markets; and (2) in its BCAT model, AT&T uses inputs that violate the requirements of the TRO and are not supported by meaningful, reliable data or experience.

My testimony rebuts several of the misplaced criticisms of Qwest's business case model offered by other witnesses in their response testimony. While showing that the structure of CPRO is appropriate and that the inputs to the model are realistic and consistent with the requirements of the TRO, I also demonstrate that AT&T's "sensitivity run" of CPRO

was not properly executed and is based on unsupported, flawed assumptions. In particular, I focus on the following specific criticisms of CPRO offered by other witnesses:

- The claim that the revenues used in CPRO are overstated;
- The assertion that the churn rate assumed in CPRO is unreasonable and inconsistent with other CPRO inputs;
- The argument that the time horizon used in CPRO is unreasonably long;
- The claim that CPRO's market entry assumptions are flawed;
- The assertion that CPRO's transport assumptions are invalid;
- The argument that CPRO's assumptions relating to economies of scale associated with operation support systems ("OSSs")are invalid; and,
- The claim that other CPRO inputs are invalid.

In the testimony that follows, I demonstrate that each of these criticisms is flawed and that AT&T's adjustments to CPRO do not yield realistic, reliable results.

**Q. MR. BARANOWSKI STATES THAT HE MODIFIED DEFAULT CPRO RUNS TO CORRECT ALLEGED STRUCTURAL FLAWS AND INPUT ERRORS IN THE MODEL.[1] ARE HIS ADJUSTMENTS TO CPRO APPROPRIATE?**

[1] Response Testimony of Michael R. Baranowski dated February 2, 2004 (Exhibit MRB-2T) ("Baranowski") at page 3.

A. No. Mr. Baranowski made changes six changes to CPRO, none of which is proper or justified. His changes include: (1) replacing the revenues used in CPRO with the revenues assumed in AT&T's BCAT model; (2) substituting the customer churn used in CPRO for the churn rate used in BCAT; (3) shortening CPRO's time horizon to eliminate the business case terminal value; (4) changing CPRO's geographic market (which Mr. Baranowski utilized in combination with every other change); (5) replacing CPRO's assumption that an efficient CLEC would use transport UNEs with the assumption that the CLEC would use more costly special access facilities; and, (6) reducing the size of the CLEC's operations in order to decrease the scale economies associated with OSSs. In total, these unsupported changes that Mr. Baranowski offers produce a scenario under which the CLEC's revenues decline by more than 50% from the revenues associated with today's prevailing prices, a significant percentage of the CLEC's customers are continuously switching to other carriers, the CLEC never develops a sufficiently large business base to cover its OSS costs, and the CLEC mysteriously chooses to pay higher costs for transport than it would be required to pay by leasing these special access facilities from the ILEC. Under the dire picture that Mr. Baranowski attempts to paint, no CLEC would ever enter the local exchange market using its own switching facilities. But we know, of course, that multiple CLECs in Washington are operating in the local exchange market with their own switches and without the dire consequences that Mr. Baranowski's analysis predicts. Mr. Baranowski's analysis and predictions of how an efficient CLEC would fare in the market are clearly unrealistic.

## III. MR. BARANOWSKI'S ADJUSTMENTS TO THE REVENUES USED IN CPRO ARE FLAWED.

**Q. MR. BARANOWSKI PERFORMS A CPRO SENSITIVITY ANALYSIS THAT REDUCES REVENUE PER LINE TO THE LEVELS OF REVENUES USED IN THE BCAT MODEL.[2] IS THIS ADJUSTMENT REASONABLE?**

A. No. The BCAT revenue per line assumptions are unreasonably low. They are inconsistent with the business strategy and pricing of Mr. Baranowski's client, AT&T, and other CLECs, as well as with the requirements of the TRO. His revenue assumptions are also significantly below the estimates of industry analysts.

**Q. IS AT&T'S OWN BUSINESS STRATEGY CONSISTENT WITH MR. BARANOWSKI'S ADJUSTMENT TO REVENUES?**

A. No. AT&T executives have stated repeatedly that their strategy is to win the "high-value customers" that produce the revenues needed to meet the company's gross margin requirements. For example, in mid-2002, Betsy Bernard, who was then the CEO of AT&T Consumer Services, explained to the investment community:

> "However, *we aren't in this business [local service/long distance packages] just to gain subscribers*.
>
> Our principle of maximizing cash requires that we only enter states that meet our gross margin requirements. Once we have entered a state, *we design and target each offer to high value customers* to further improve the economics of the business."[3]

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[2] Baranowski, at page 6.

[3] Q2 2002 AT&T Earnings Conference Call, Financial Disclosure Wire, July 23, 2002. (*emphasis added*) Attached as Exhibit PBC-16.

As Mr. Shooshan discusses in his testimony, this approach of targeting high-value customers is precisely what an efficient CLEC would do. As shown by his own client's business strategy, it is highly unrealistic for Mr. Baranowski to reduce the revenues in CPRO based on the assumption that an *efficient* CLEC seeking to maximize the return on its investments would target low value and sometimes unprofitable subscribers, particularly since CLECs generally do not have the same obligations to serve that ILECs have.

Just two months ago, AT&T Chairman and CEO David Dorman reiterated that AT&T, consistent with the approach of a rationale, profit-maximizing CLEC, is targeting high-value customers:

> "*We continue to take a targeted approach to attract and retain high-value customers to our bundled services offerings*, allowing us to drive profitability in this area of your business. *We'll lead with our One Rate USA offer* of unlimited local and long distance, *which has proved very popular with customers…*"[4]

As stated by Banc of America, "AT&T's 'cherry picking' approach has drawn Bell ire but it has worked."[5]

**Q. WHAT ARE THE ELEMENTS OF AT&T'S ONE RATE USA PLAN THAT MR. DORMAN REFERS TO IN THE QUOTE CITED ABOVE?**

A. AT&T's One Rate plan is a packaged service offering for residential customers that

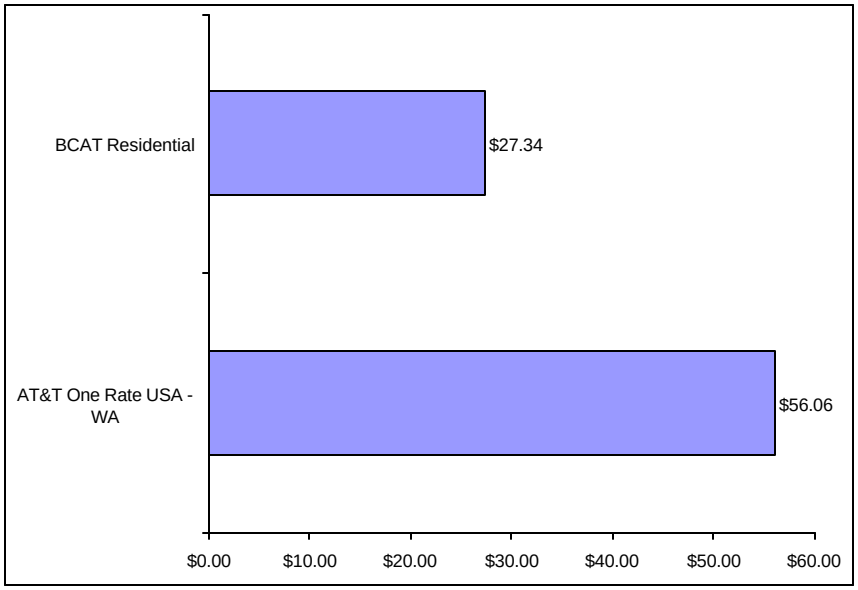
[4] "AT&T Chairman Outlines Aggressive Competitive Strategy at CSFB Conference," AT&T News Release, December 11, 2003. (*emphasis added*) Attached as Exhibit No. PBC-17.

includes unlimited local and domestic long distance calling and four calling features for $49.95 per month. With the subscriber line charge, the package costs approximately $56.00 per month.[6] This package is available to consumers in Washington.

**Q. HOW DOES AT&T'S ONE RATE USA PLAN PRICE COMPARE TO RESIDENTIAL REVENUE PER LINE IN THE BCAT MODEL?**

A. As Figure 1 shows, the average levelized revenue per line for residential customers in the BCAT model is less than half the price of AT&T's leading One Rate USA plan.[7]

**Figure 1**
**Comparison of BCAT Residential Revenue Per Line and AT&T One Rate USA**




[5] Banc of America Securities Research Brief, "AT&T Corporation, a Case for Consumer Services," April 30, 2003, at 6.

[6] This assumes $6.11 per month for the subscriber line charge, per the BCAT model ($49.95 + $6.11 = $56.06).

[7] $27.34 is the average revenue per line for residential customers over the 10 years assumed in BCAT.

As this comparison shows, the residential revenues assumed in BCAT and in Mr. Baranowski's CPRO sensitivity analysis are contradicted by AT&T's leading package offering, which, according to AT&T's Chairman and CEO, "has proved very popular with customers."

**Q. DRS. SELWYN AND LEHR ARGUE THAT CPRO REVENUE IS OVERSTATED BECAUSE IT "DOES NOT ACCOUNT FOR THE BUSINESS MODELS OF OTHER CLECS, LIKE AT&T, THAT ALSO OFFER STAND-ALONE LOCAL EXCHANGE SERVICE OPTIONS."[8] DOES AT&T'S STAND-ALONE PRICING SUPPORT AVERAGE REVENUE PER LINE ASSUMED IN THE BCAT MODEL?**

A. No. A comparison of AT&T's stand-alone prices with BCAT's average revenue per line only confirms that BCAT's revenue assumptions are unreasonably low. In Washington, AT&T's stand-alone basic local service price to residential customers varies by location; the lowest price is $14.95 per month.[9] The subscriber line charge is additional, so the total price per month for stand-alone local service is at least $21.00,[10] or only about $6.00 less than BCAT's total average revenue per line that includes local, long distance, feature and subscriber line charge.

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[8] Response Testimony of William H. Lehr and Lee L. Selwyn dated February 2, 2004 (Exhibit No. WHL-4T) ("Lehr/Selwyn") at page 42.

[9] Customers who choose AT&T as their primary long distance carrier are offered the $14.95 price for basic local service. The price for customers who do not choose AT&T for long distance is $18.95. *See* AT&T Washington Price List, Schedule 20, Sections 15 and 16, Effective February 13, 2004.

[10] $14.95 + $6.11 (SLC in BCAT) = $21.06.

To appreciate the significance of the relationship between AT&T's stand-alone price, AT&T's packaged prices, and BCAT's revenue per line, consider again that AT&T is successfully targeting high-value customers with its One Rate USA plan. If, consistent with the BCAT assumption, AT&T earned an average revenue of $27.34 per line, and if only 20 percent of AT&T's local service customers subscribe to the One Rate USA plan, the average revenue per line for the other 80 percent of AT&T's local customers would be $20.16, which is less than AT&T's stand-alone basic local service price. In other words, AT&T's prices in Washington support significantly higher revenue per line than is included in the BCAT model and in Mr. Baranowski's CPRO sensitivity analysis.

**Q. DOES AT&T ACTIVELY MARKET ITS LOWEST PRICE LOCAL SERVICE?**

A. No. AT&T's consumer website describes three residential offerings, the lowest of which is priced at $23.95 per month plus an additional fee for FCC line charge, and a minimum long distance charge of $5.00 per month.[11] The other two offerings are the AT&T One Rate Plan at $49.99 per month (plus FCC line charge) and the Call Deluxe Plan at $29.95, plus additional monthly charges for long distance and FCC line charge. No lower price offering is displayed. There is no offering readily visible on the AT&T website that even remotely resembles the $11.25 price for residential service utilized in the BCAT model and in Mr. Baranowski's sensitivity analysis. Another telling example is

[11] *See* Exhibit No. PBC-14. Drs. Lehr and Selwyn also contend that long distance, voice mail, and wire maintenance should not be included as part of the efficient CLEC's revenue stream. However, these options are prominently offered by AT&T on its consumer services website.

Z-Tel, whose consumer services website only lists the Z-lineHome Unlimited service for $55.99 per month.[12] It is clear, as Staff witness Mr. Spinks acknowledges, that these carriers only want to serve residential customers who are interested in high-end package services – the "high-value" customers described by AT&T's Chairman and CEO.

**Q. WHAT OTHER ASPECTS OF THE MARKETING OF AT&T'S LOWEST PRICE LOCAL SERVICE OFFERING AFFECTS THE MIX OF THEIR TARGET CUSTOMERS?**

A. AT&T's lowest price offering is not listed on its website. The website does provide a phone number that a prospective customer must call and specifically request a lower price plan than those listed in the web site. At that point, the customer is informed of the $14.95 plan. This plan is priced $2.45 higher than Qwest's basic residential local service offering. By pricing this plan nearly 20 percent over Qwest's basic residential rate, AT&T is all but ensuring that its low price offering is not attractive to the basic service consumer. Thus, through its marketing and pricing, AT&T targets the high-end customers, while leaving the consumer only interested in basic service to the incumbent.

**Q. IS THERE OTHER INFORMATION DEMONSTRATING THAT THE BCAT AVERAGE REVENUE PER LINE IS TOO LOW?**

A. Yes. In their testimony, AT&T witnesses Denney and Starr attempt to support their estimate of customer churn by citing a Banc of America ("BOA") report relating to

[12] *See* Exhibit No. PBC-15.

AT&T's residential service provided through UNE-P. This report includes an estimate of $34 per line for only the local portion of AT&T's residential service.[13] This figure is about $10 per line per month higher than the equivalent number used in BCAT and in Mr. Baranowski's sensitivity analysis. Although the figures for churn and local revenue per line are included in the same BOA analysis, AT&T's witnesses selectively use only the figure (churn) that is allegedly favorable to their case and do not acknowledge, much less explain, the revenue figure that undermines their analysis.

**Q. DRS. LEHR AND SELWYN ALSO CRITICIZE CPRO FOR NOT ASSUMING SUFFICIENT LEVELS OF COMPETITION AND ITS IMPACT ON REVENUES.[14] HOW DOES THE REVENUE IN CPRO TAKE COMPETITION INTO CONSIDERATION?**

A. This is the rationale that the CLECs use to support their claim that Qwest should have assumed both lower revenues (26 percent lower by the end of the modeling period) and lower demand. Other Qwest witnesses have shown that the assumption of declining prices advocated by AT&T directly contradicts the requirement of the TRO to use "prevailing" prices. Moreover, wholly apart from the fact that this is a significant deviation from the TRO, the CLEC argument fails to take into account that competitive impact includes far more than prices.[15] It would be improper to only model revenue changes as

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[13] Banc of America Research Brief at 10.

[14] Lehr/Selwyn, at page 60.

[15] This issue was addressed in my Response Testimony dated February 2, 2004, Exhibit No. PBC-7T at pages 24 to 25.

AT&T has done. As I previously pointed out, aside from the fact that the FCC has mandated the use of current prices, there are three economic reasons for using them in the model: (1) prices for services that remain constant over time in an analysis of impairment actually decline in relation to the overall price levels in the economy (thus, the model does reflect competitive pressures on prices); (2) CLEC witnesses confuse changes in prices with overall revenue growth, thereby ignoring future growth in the types and quantity of services per line (using wireless as the example, per customer revenue has increased even in the face of lower per minute charges); and (3) performing financial analysis of entry and impairment using prevailing revenues per line is a difficult enough process without entering into the contentious and highly speculative process of forecasting the dynamics of price changes and the availability and adoption of new services going forward in time.

**Q. IS MR. BARANOWSKI'S COMPARISON OF PRICE CHANGES IN THE LOCAL SERVICE MARKET WITH PRICE CHANGES IN THE LONG DISTANCE MARKET[16] VALID?**

A. No. The dynamics of pricing of the two services is dramatically different; their price structures bear little resemblance to each other. Historically, long distance was priced far above its cost, while local service was subsidized. In more recent times, the major cost component for long distance has been access charges, which were drastically reduced under the FCC's price cap regime, and further under the CALLS plan. Additionally, some access charges to carriers were moved to subscriber line charges. In contrast, the

[16] Baranowski, at page 9.

fundamental cost of local service consists of large cost elements (such as loops) that are directly related to fixed investment in the network. That, in combination with the fact that availability of large margins is limited for residential local exchange services, makes it clear the kinds of large cost (and therefore price) reductions that took place in long distance are unlikely to be replicated for local exchange services.

## IV. THERE IS NO MERIT TO AT&T'S CLAIM THAT CPRO'S CHURN ASSUMPTION IS UNREASONABLE AND INTERNALLY INCONSISTENT.

**Q. MR. BARANOWSKI STATES THAT CPRO'S RATE OF CHURN (3%) IS TOO LOW AND CITES A BANC OF AMERICA SECURITIES STUDY TO SUPPORT A HIGHER RATE OF CHURN (4.6%).[17] DOES THE BANC OF AMERICA STUDY SUPPORT A HIGHER CHURN RATE?**

A. No. In fact, it support's Qwest's churn input. The BOA analysis cites an *ex parte* bankruptcy court filing concerning MCI's alleged churn rate for its Neighborhood plan prior to November 15, 2002.[18] It must be remembered that MCI didn't begin offering its Neighborhood plan until April, 2002. Three months later, MCI filed for bankruptcy. Thus, the Neighborhood plan, a first of its kind in the industry, was started during a volatile period for MCI. Billing complaints from MCI's customers increased 300% during this time period. MCI claimed that these complaints resulted because customers did not realize that the Neighborhood's monthly flat rate did not include taxes. Thus, MCI's churn from its initial experience with the Neighborhood Plan is not representative.

[17] Baranowski, at page 12.

Not surprisingly, given these facts, BOA completely ignored the MCI churn data in conducting its analysis.

BOA reached the following conclusion as to the churn to use in its state-by-state UNE-P Model: "Our estimated quarterly churn rate (discussed earlier) rises from 4.5% in 4Q02 to 4.6% and falls back to 2.4% by 2006 in each state as customers settle down with their bundled services."[19] Thus, the BOA analysis supports a churn range from 2.4% to 4.6%. However, the higher end rate (4.6%) is used for a brief period of time. The long term, steady state churn rate used after year 3 is 2.4%, well below the 3% churn rate used in CPRO. I have included Highly Confidential Exhibit No. PBC-18HC that shows churn values from various sources that contradict the churn rate advocated by AT&T.

## V. AT&T'S CLAIM THAT CPRO'S TIME HORIZON IS INAPPROPRIATELY LONG IS INACCURATE.

**Q. ARE DRS. LEHR AND SELWYN'S CRITICISMS OF CPRO'S USE OF A 25-YEAR CASH FLOW ANALYSIS REASONABLE?**

A. No. Drs. Lehr and Selwyn make two arguments in an attempt to support their claim that estimating cash flows beyond 10 years is improper. Neither argument has merit. First, their most fundamental argument is that a CLEC would be of little value after ten years; thus, they argue that CPRO is in error in using a 25-year cash flow. They state:

> (1) "the use of a terminal value implies a reasonable expectation that the investment or enterprise will have positive value at the end of the analysis period.

[18] Banc of America Research Brief, at page 10.

[19] *Id*,. at page 20.

> In the case of a CLEC, there is little basis for making such a prediction, let alone predicting its amount."[20]

Apparently relying on Drs. Lehr's and Selwyn's reasoning, Mr. Baranowski appears to have simply valued the CLEC at zero in year 10, although as I describe below, AT&T's witnesses do not do this consistently or correctly.

Second, Drs. Lehr and Selwyn argue that the methodology used to estimate a terminal value after ten years is unreasonable. They state, "it is not reasonable to pick an excessively long time frame simply to avoid estimating the terminal value in a discounted cash flow analysis."[21] This argument criticizes the mechanical techniques of the model.

Both of these arguments are based on an incorrect interpretation of the CPRO model and are inconsistent with sound financial analysis.

**Q. WHY IS DRS. LEHR AND SELWYN'S CRITICISM OF THE USE OF A 25-YEAR CASH FLOW METHODOLOGY INVALID?**

A. Their assumptions about the structure of the CPRO model are based on an incorrect interpretation of the cash flows. In the context of asset or enterprise valuation, it is widely accepted that the estimate of the value of an enterprise should take place in two parts. The first is an estimate of free cash flows to a horizon where the firm reaches a steady state. The second is the value of the enterprise at that horizon. The former is often

[20] Lehr/Selwyn, at page 50.

[21] *Id.*, at page 49.

referred to as the active cash flow, while the second is referred to as a terminal value.[22] As Drs. Lehr and Selwyn recognize, the terminal value is often calculated using a simple mathematical formula called the perpetuity formula.[23] This formula calculates the value of a stream of cash flows each year in perpetuity based on the cash flow in the last year of the active period, the discount rate, and the expected growth rate of cash flows after the active period.

In CPRO, the model calculates all revenues and costs to a steady state in year six. By this time, the CLEC has reached its target market size. The model then calculates the total revenues and costs based on the previous years, including replacement of exhausted capital, out to year 25. The model does not calculate all of the granular components of a cash flow analysis for 25 years. The model uses this technique rather than the perpetuity formula to better account for the lumpy cost of the replacement of assets, which can be difficult to include in a terminal value calculation. As was noted in my direct testimony, the present value of a dollar after year 25 is so small that the model no longer calculates them. This is a conservative assumption, since, as I demonstrate below, it reduces the value of entry.

[22] *See* Brealey, Richard A. and Stewart C. Myers, Principles of Corporate Finance, Fourth Edition, pages 63 to 67.

[23] Lehr/Selwyn, at page 50.

**Q. WHAT WOULD BE THE EFFECT OF USING THE PERPETUITY FORMULA IN CPRO?**

A. If CPRO utilized the perpetuity formula, the value of entry by the CLEC would be higher. The NPV of entry into the MSAs in the Seattle LATA was $16.0 million. If CPRO had used the methodology advocated by AT&T, then the value would have increased to $17.7 million. In other words, CPRO's use of this alternate methodology is conservative because it lowers the value of entry.

**Q. HOW DO DRS. LEHR AND SELWYN MAKE THEIR FUNDAMENTAL ARGUMENT THAT A CLEC WOULD BE OF LITTLE VALUE IN TEN YEARS?**

A. They make three arguments for their conclusion that a CLEC would have little value after 10 years:

- The physical assets of the CLEC will be mostly exhausted in 10 years;[24]
- The uncertainty in the industry makes forecasting difficult;[25] and
- Bondholders have confirmed this by not giving CLECs more than 10 years to repay the principal on a bond.[26]

These arguments do not support their conclusion.

**Q. IS DRS. LEHR AND SELWYN'S ARGUMENT THAT THE PHYSICAL ASSETS OF THE CLEC WILL BE LARGELY EXHAUSTED**

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[24] *Id*.

[25] Lehr/Selwyn, at pages 51 to 56.

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[26] *Id*,. at pages 56 to 59.

**MEANINGFUL?**

A. No. Drs. Lehr and Selwyn appear to be arguing that the value of the CLEC would be largely driven by a book value of the physical assets of the firm and, as such, when the assets of the firm near the end of their economic life, the firm would be nearly worthless. They state that "the vast majority of a CLEC's physical assets (switches, transmission equipment, computers, etc.) will be largely obsolete at the end of ten years and have no market value to speak of at that time."[27] By this logic, a CLEC using UNE-P to serve five percent of the customers in a market would be worthless as well, regardless of when the firm was valued, because UNE-P CLECs have almost no physical assets. Like all firms, CLECs are valued based on their future cash flows. This is true for UNE-L and UNE-P CLECs. The argument that CLEC value is derived from the value of physical assets is wrong in both contexts.

**Q. DO DRS. LEHR AND SELWYN'S ARGUMENTS ABOUT THE RAPID CHANGE IN THE INDUSTRY LEAD TO A LOGICAL CONCLUSION THAT THE VALUE OF AN EFFICIENT CLEC SHOULD BE IGNORED AFTER YEAR 10?**

A. No. The uncertainty about the future that Drs. Lehr and Selwyn derive from their summary of the recent history of telecommunications is known as risk in financial analysis. Financial analysts recognize risk by their choice of the discount rate. Analysts use higher discount rates to recognize the risks of a project and therefore reduce the value of the

[27] *Id*,. at page 50.

cash flows in the future. CPRO uses approximately the same equity discount rate as BCAT and therefore recognizes approximately the same level of equity risk as BCAT. Drs. Lehr and Selwyn seem to argue that at year 10, the risk of CLEC operations becomes so high that the discount rate should increase to the point where all future cash flows after year 10 should be valued at zero. Brealey and Myers, authors of an authoritative finance text, "Principles of Corporate Finance," explain the fallacy of this notion:

> **A Common Mistake** You sometimes hear people say that because distant cash flows are "riskier," they should be discounted at a higher rate than earlier cash flows. That is quite wrong: using the same risk-adjusted discount rate for each year's cash flow *implies* a larger deduction for risk from the later cash flows. The reason is that the discount rate compensates for the risk borne *per period*. The more distant the cash flows, the greater the number of periods and the larger the *total* risk adjustment.[28]

Drs. Lehr and Selwyn have made this same mistake. As a result, their conclusions are wrong.

**Q. DRS. LEHR AND SELWYN ALSO ARGUE THAT INVESTORS DO NOT VIEW CLECS AS HAVING ANY VALUE IN 10 YEARS BASED ON THE TERMS OF BONDS. IS THIS A REASONABLE INTERPRETATION?**

A. No. There is no relationship between the duration of a firm's bonds and the firm's viability. In addition, Drs. Lehr and Selwyn assume incorrectly that because a CLEC's 10K report does not show debt issuances beyond 2011, CLECs will be unable to obtain

[28] Brealey, Richard A. and Stewart C. Myers, Principles of Corporate Finance, Fourth Edition, page 205.

debt after that time. Significantly, there is no information in 10K reports that shows whether a company has been denied debt, so 10Ks provide no basis for assumptions about long-term debt financing. Further, Drs. Lehr and Selwyn assume that bondholders and equity investors have similar time horizons and risk tolerances for making investment decisions. Bondholders make investment decisions across the time horizon of the bonds and receive lower returns for greater seniority to cash flows. Equity investors (such as the owners of CPRO-modeled CLEC) accept greater risk and have the potential to receive much greater returns. Equating the time horizon and risk tolerances of bondholders to equity holders does not properly account for the differences in these two types of investors. Drs. Lehr and Selwyn's inferences about CLEC bond investors are invalid.

**Q. ARE AT&T'S WITNESSES CONSISTENT OR CORRECT IN THEIR ANALYSIS OF THE CPRO MODEL'S DISCOUNTED CASH FLOW ("DCF") ESTIMATES FOR ENTRY IN THE MSA'S IN THE SEATTLE LATA?**

A. No. Mr. Baranowski claims that the CPRO NPV is only $2.5M positive in year 10.[29] Drs. Lehr and Selwyn declare that "the venture would not be profitable over a ten-year planning horizon."[30] Both have misstated the results. Confidential Exhibit No. PBC-5C clearly demonstrates that the CPRO business case is cumulative DCF positive in year nine, with a year 10 cumulative DCF of $3.6M (see the "Key Financials" tab cell P41).

[29] Baranowski, at page 16.

[30] Lehr/Selwyn, at page 59.

In both cases, AT&T is trying to apply the discounted payback period rule with 10 years as their cutoff. This rule states that firms accept projects that have discounted cash flows that are greater than or equal to zero by the payback period cutoff. This rule ignores all cash flows after the cutoff.[31] Brealey and Meyers find that this rule is unsatisfactory. They state, "The discounted payback rule still depends on the choice of an arbitrary cutoff date and it still ignores all cash flows after that date."[32] They go on to state, "Some managers do use payback in judging capital investments. Why they rely on such a grossly oversimplified concept is puzzling."[33] Drs. Lehr and Selwyn's insistence that the payback period is an overriding rule in using DCF valuations is puzzling indeed. It is also inconsistent with the TRO, as cited in my direct testimony (Exhibit No. PBC-1T).

**Q. MR. BARANOWSKI TRUNCATES CPRO BY ASSUMING AWAY CPRO'S PROJECTED NET CASH FLOW AFTER YEAR 10. IS THERE ANY JUSTIFICATION FOR THIS ADJUSTMENT?**

A. No. In a properly conducted business case analysis, the future net cash flows are discounted to present value using a discount rate that reflects the risks and uncertainties inherent in estimating what future cash flows will be. The riskier and more uncertain the cash flows, the higher the discount rate that is used. Stated another way, the discount rate is the mechanism in CPRO that takes into account future risk and uncertainty. However, it must always be remembered that financial risk cuts both ways. It is entirely

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[31] Brealey and Myers, at page 77.

[32] *Id.*

possible that future events will lead to CLEC net cash flows that are higher than projected, not lower. CPRO uses a discount rate of 15% and none of the parties to this proceeding has claimed that it is not an appropriate discount rate given the risks and uncertainties in the telecommunications industry. As a practical matter, using a 15% discount rate means that a dollar received ten years from now is worth about twenty-five cents in today's dollars.

By completely eliminating cash flows after year 10 from his run of CPRO, Mr. Baranowski has in fact discounted twice – first through use of the discount rate and then again by ignoring all cash flows after year 10. This significantly understates the value of an efficient CLEC offering services to mass market customers using self-provisioned switching.

**Q. BASED ON YOUR REVIEW OF THE ARGUMENTS MADE BY DRS. LEHR AND SELWYN, ARE THERE ANY CHANGES THAT SHOULD BE MADE TO THE CPRO MODEL REGARDING THE TERMINAL VALUE?**

A. No. The CPRO model conforms to standard financial analysis practices and produces a conservative estimate of the value of a CLEC entering the mass market in Washington. I have seen no information that would lead me to change the model's methodology.

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[33] *Id*,. at page 89 (emphasis in original).

## VI. MARKET ENTRY

**Q. AT&T WITNESSES BARANOWSKI,[34] AND LEHR AND SELWYN[35] CONTEND THAT CPRO'S MARKET ENTRY IS UNREASONABLE FOR AN EFFICIENT CLEC. WHY IS MSA ENTRY CONSISTENT WITH THE ENTRY STRATEGY OF AN EFFICIENT CLEC?**

A. CLEC entry into MSA markets is prevalent, as demonstrated in the direct and response testimony of Qwest witness Mark Reynolds (Exhibit Nos. MSR-1T and 14T) which was adopted by David L. Teitzel in his rebuttal testimony (Exhibit No. DLT-1T). It is logical that CLECs enter the market where there are large concentrations of business customers who provide higher revenue streams per line than residential customers, unbundled loop costs are relatively lower than outside the MSA, and market outlets can efficiently advertise the CLEC products. Qwest's analysis shows that the six MSAs discussed in my direct testimony (Exhibit No. PBC-1T) present the strongest economic opportunities for a CLEC to provide service with self-supplied switching.

**Q. MR. BARANOWSKI ARGUES THAT BECAUSE CPRO DOES NOT PRODUCE AN MSA BY MSA ANALYSIS IT UNDERSTATES COSTS. HE THEN SUGGESTS THAT A PROPER ANALYSIS WOULD PLACE A SWITCH IN EACH MSA. WOULD AN EFFICIENT CLEC DEPLOY A SWITCH IN EACH MSA?**

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[34] Baranowski, at page 19.

[35] Lehr/Selwyn, at page 36.

A. No. The evidence is overwhelming that an efficient CLEC will not place multiple switches to serve geographically concentrated MSAs. An efficient CLEC will look for scale efficiencies and will thus place as many customers as possible on a single switch. It does this by balancing transport costs with switching costs. In the Seattle LATA, a single switch configuration is clearly the most efficient means of serving the five MSAs.

**Q. IS MR. BARANOWSKI'S POSITION CONTRADICTED BY AT&T'S POSITION THAT THE ENTIRE LATA IS THE PROPER GEOGRAPHIC MARKET?**

A. Yes. AT&T has strongly advocated that the proper market is the entire LATA. Since a LATA as a whole obviously has more lines than the individual MSAs within it, AT&T's efficient CLEC will gain more switching efficiencies than the efficient CLEC modeled by Qwest. Thus, while Mr. Baranowski criticizes the level of efficiency in the Qwest models, other AT&T witnesses suggest that Qwest is too conservative with regard to the very same assumption. AT&T cannot have it both ways.

**Q. MR. SPINKS STATES THAT THE BUSINESS CASE MUST ENSURE THAT A FACILITY-BASED COMPETITOR COULD ECONOMICALLY SERVE ALL CUSTOMERS IN THE MARKET BEFORE FINDING NO IMPAIRMENT. IS MR. SPINKS' POSITION SUPPORTED BY THE TRO?**

A. No. Mr. Spinks relied upon the fifth sentence of paragraph 519 of the TRO, which initially stated: "State commissions must ensure that a facilities-based competitor could economically serve all customers in the market before finding no impairment." On

September 17, 2003, the FCC issued an errata to the TRO which eliminated this requirement along with footnote 1586.[36] Footnote 1586 had required the use of "the typical revenue to be obtained from all customers" in making the impairment determination. These changes were significant because they recognize that an efficient CLEC will target high revenue customers when entering a market. Thus, whether entry is economic depends in part upon the revenues the CLEC is likely to obtain, not the typical revenues of the market's average customer.[37]

## VII. AT&T'S MERITLESS CLAIM THAT CPRO USES FLAWED TRANSPORT ASSUMPTIONS

**Q. MR. BARANOWSKI STATES THAT HE FOUND CPRO EXCLUSIVELY AND UNJUSTIFIABLY USES UNE TRANSPORT RATES IN THE MODEL. IS HE CORRECT?**

A. No. CPRO, in its default baseline view in Washington, uses Interstate Special Access rates for entrance facilities (special access channel terminations) because the TRO states that entrance facilities no longer need be offered as UNEs. CPRO offers the option for inter-office transport to be at UNE rates if routes are not competitive (per TRO) or Interstate Special Access rates if the routes are found to be competitive (per TRO). Qwest has checked to determine if any of the inter-

[36] Errata, 9/16/03, ¶23.

[37] *See* TRO, ¶100.

office routes where it is requesting findings of no impairment are included in the CPRO model. No common routes were found. Therefore, the baseline view of CPRO includes UNE inter-office transport rates for developing backhaul costs. Changing the inter-office transport rates to Special Access does not comply with the TRO requirement of basing costs on those of an *efficient* CLEC.

**Q. MR. BARANOWSKI STATES THAT UNE TRANSPORT RECURRING RATES AND NON-RECURRING CHARGES, SUCH AS GROOMING AND DE-MUXING, HAVE NOT BEEN ACCOUNTED FOR IN CPRO.[38] WHAT IS YOUR RESPONSE?**

A. CPRO includes the grooming rate in its UNE-L rate (as it does in Exhibit A to the Washington SGAT). Qwest also includes the non-recurring costs of multiplexing equipment when purchased as UNEs or special access. These rates can be seen in Confidential Exhibit PBC-5C (in the Zone Specific Rate Input Values and General Rate Input Values Tabs). When CPRO multiplexing equipment is owned by the CLEC, the negative cash flow caused by the purchase of the equipment is recognized in the model. Accordingly, Mr. Baranowski's proposed adjustments based on these costs are baseless.

## VIII. AT&T'S FLAWED CLAIM THAT CPRO USES INCORRECT OSS ASSUMPTIONS

**Q. IN THEIR RESPONSIVE TESTIMONY, MR. BARANOWSKI AND DRS. LEHR AND SELWYN HAVE ATTEMPTED TO CHARACTERIZE THE**

[38] Baranowski, at page 20.

**EFFICIENT CLEC BEING MODELED IN CPRO. IS THEIR CHARACTERIZATION ACCURATE?**

A. No, they have misstated the underlying assumptions in CPRO in several critical areas. For example, Drs. Lehr and Selwyn state that "CPRO is modeling a start-up CLEC."[39] The CPRO documentation clearly states that while the CLEC is a new entrant in the particular geographic market, it is not a start-up firm. However, a critical assumption is that the firm has other pre-existing operations elsewhere. This is important because, in line with the guidance in the TRO,[40] some costs, such as OSS costs, are borne in part by the efficient CLEC's broader operations in other markets.

**Q. MR. BARANOWSKI ADJUSTS CPRO'S ASSUMPTION RELATING TO CLEC TOTAL LINES IN ALL MARKETS FROM 500,000 TO 100,000, STATING THAT NO CLEC IN WASHINGTON STATE COMES CLOSE TO 500,000 LINES.[41] DOES CPRO'S EFFICIENT CLEC HAVE ONGOING OPERATIONS IN OTHER STATES?**

A. Yes. CPRO's efficient CLEC is new to the LATA in Washington but, consistent with the realities of CLEC operations, has existing operations in other states. The sum of the lines in the total operations is 500,000. Nowhere in the CPRO documentation does it state that all 500,000 lines exist in the target market. This

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[39] Lehr/Selwyn, at page 51.

[40] *TRO* footnote 1589.

[41] Baranowski, at page 22.

adjustment is also without merit.

## IX. AT&T'S OTHER FLAWED CLAIMS RELATING TO CPRO'S INPUTS

**Q. ARE DRS. LEHR AND SELWYN'S CRITICISMS OF CPRO'S CUSTOMER ACQUISITION COSTS REASONABLE?**

A. No. Drs. Lehr and Selwyn make an unsupported claim that the customer acquisition costs in CPRO are inconsistent with the revenue assumptions in CPRO. They state:

> While $120 might represent the average acquisition cost for an average CLEC customer, it is likely that the acquisition cost for a high-revenue bundled service customer is considerably higher. For example, AT&T is offering a cash signing bonus of $75 to residential customers who sign up for its "One Rate USA" bundle …for a local service plan without unlimited long distance, AT&T's signing bonus is only $35….[42]

There are two problems with their argument. First, they imply that the cash signing bonuses offered by AT&T of $75 and $35 per line are inconsistent with a total customer acquisition cost of $120 per line. They provide no analysis or information to support this implication on their part.

Second, an investment banking report, cited by AT&T's own witness to support AT&T's churn input, estimates that AT&T's cost per new customer is $125 per customer. Drs. Lehr and Selwyn do not acknowledge this fact nor do they provide any analysis to explain why the customer acquisition costs in this report cited by AT&T and CPRO are wrong.

[42] Lehr/Selwyn, at page 45.

Similarly, they refer to offers provided by MCI to acquire new customers but provide no analysis to support why these offers will cause the cost of customer acquisition to be higher than the levels included in CPRO. Indeed, MCI states that they have very low customer acquisition costs. Wayne Huyard, the MCI COO stated:

> We also experience a low acquisition cost since we're more than doubling our monthly revenue per customer with essentially the same sales productivity as stand-alone long distance.[43]

Once again, Drs. Lehr and Selwyn imply that the cost of customer acquisition is higher than the value in CPRO but provide no analysis whatsoever to support this claim.

As I stated in my direct testimony (Exhibit No. PBC-1T), internal consistency is key to producing reliable analysis. The analysis that I provided with the CPRO model is internally consistent by design. The AT&T approach is to cite a single piece of data in order to create the incorrect and unsupported inference that Qwest's analysis is incorrect.

**Q. DRS. LEHR AND SELWYN ARGUE THAT CPRO'S CUSTOMER ACQUISITION EXPENSE IS TOO LOW FOR A FIVE YEAR RAMP-UP TO REACH A FIVE PERCENT MARKET PENETRATION. HOW DO THE VALUES FOR THESE THREE INPUTS IN CPRO COMPARE TO AT&T'S BCAT INPUTS?**

A. CPRO and BCAT use the same ramp-up period to reach a five percent market

[43] "Using UNE-P to Develop and Strong and Profitable Local Presence," remarks by Wayne Huyard, MCI, Chief Operating Officer, Goldman-Sachs Telecom Issues Conference, New York May 7, 2002.

penetration. As I pointed out in my responsive testimony (Exhibit No. PBC-7T) in Table 4, the CPRO customer acquisition costs start higher than the BCAT and are approximately equal in year three. The early years impact the NPV more than later years since the NPV function discounts each year's expenses (or revenues) at 15 percent per year. In year 6, CPRO reduces the customer acquisition cost to reflect the fact that the CLEC at this point is no longer buying increased market share.

**Q. DRS. LEHR AND SELWYN HAVE OPINED THAT QWEST HAS OFFERED NO INDICATION AS TO HOW IT ARRIVED AT CUSTOMER ACQUISITION COST OF $120 PER CUSTOMER OR HOW IT CONCLUDED THAT THIS WAS THE OPTIMALLY EFFICIENT LEVEL.[44] DOES CPRO PRESENT ITS INPUT FOR CUSTOMER ACQUISITION COST AS THE OPTIMALLY EFFICIENT LEVEL?**

A. No. CPRO documentation does not state that the model assumes an optimally efficient CLEC, only a reasonably efficient CLEC. Confidential Exhibit PBC-4C states that "To be consistent with the default prices, CPRO estimates the cost of customer acquisition at $120 per customer. This value is within the range of values that CLECs currently spend for customer acquisitions. It is a conservative estimate of what an efficient CLEC would spend. Several CLECs have forecasted lower costs in the future."

[44] Lehr/Selwyn, at page 69.

**Q. DRS. LEHR AND SELWYN CLAIM CPRO ASSUMES THAT THERE WILL BE AT LEAST FOUR CLECS, EACH WITH A FIVE PERCENT SHARE OF THE MARKET.[45] DO YOU FIND THAT ASSUMPTION IN THE CPRO DOCUMENTATION?**

A. Drs. Lehr and Selwyn claim that CPRO assumes "that several CLECs will each reach a market share of 5 % within five years."[46] It is true that CPRO assumes that the efficient CLEC will achieve a five percent market share over five years; this assumption is based upon three factors. First, several individual CLECs have already achieved market shares in excess of five percent in other states. Second, a firm with a five percent market share does not preclude entry by other firms. Third, a firm with five percent share will achieve adequate economies of scale. All of these assumptions are consistent with the business case modeling requirements of the TRO.

Drs. Lehr and Selwyn's statement that CPRO assumes that four CLECs will each achieve a five percent market share[47] is incorrect. CPRO does not assume that four CLECs, each achieving a five percent market share, would exist in the market. The TRO states that the business case model should model an efficient CLEC, which is precisely what Qwest has done.

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[45] *Id*., at page 43.

[46] *Id*. at page 70.

[47] Lehr/Selwyn at page 43: "If CLECs are to collectively to attract as much as a 20% share of all mass market customers," thus implying four carriers with a five percent share each.

## X. CONCLUSION

**Q. PLEASE SUMMARIZE YOUR ANALYSIS OF MR. BARANOWSKI'S ADJUSTMENTS TO THE CPRO MODEL?**

A. In these three rounds of testimony, Qwest has provided the support and documentation for its revenue, churn, market definitions and other inputs. These inputs are supported by actual data and actual business strategies for actual CLECs. AT&T cannot say the same for its inputs. Mr. Baranowski's modifications to CPRO inputs are not valid representations of an efficient CLEC and should be disregarded.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.