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December 17, 2004

VIA HAND DELIVERY

Elizabeth O'Donnell
Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

RE: An Inquiry Into the Development of Deaveraged Rates for Unbundled Network Elements, Administrative Case No. 382

Dear Ms. O'Donnell:

Enclosed for filing please find Kentucky ALLTEL's Notice of Supplemental Filings of the revised redacted direct testimonies of Michael E. Skudin, David Blessing and Cesar Caballero. Please return a date-stamped copy of the Notice to me.

Revised unredacted testimonies are being filed under seal in the enclosed envelope. Copies of the revised unredacted testimonies are being provided only to the Commission and to parties on record who have executed the Confidentiality Agreement with Kentucky ALLTEL.

Given the confidential nature of this filing, copies of revised direct testimonies are not being mailed to the remaining parties on the service list as set forth in the Certificate of Service attached to this letter. These parties will receive a copy of the letter, together with the Notice of Supplemental Filings without the confidential attachments.

Thank you for your cooperation in this matter. If you have any questions, please do not hesitate to call.

Sincerely,

James H. Newberry, Jr.

Enclosures

Notice (original and (11) eleven copies)
Revised redacted testimony
Revised unredacted testimony (filed under seal
with a copy to the Commission and Douglas Brent)

cc: Amy E. Dougherty, Esq.
Douglas F. Brent, Esq.

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INQUIRY INTO THE DEVELOPMENT OF DEAVERAGED RATES FOR UNBUNDLED NETWORK ELEMENTS	)))	**ADM. CASE NO. 382**

NOTICE OF SUPPLEMENTAL FILINGS

Please take notice that Kentucky ALLTEL, Inc. ("Kentucky ALLTEL") has filed herewith revised direct testimonies of Michael E. Skudin, David Blessing and Cesar Caballero. There have been no substantive changes to the testimonies. Originally Kentucky ALLTEL identified as confidential all portions of the testimonies pertaining to the workings of the model/cost study and any inputs thereto. However, upon further review, Kentucky ALLTEL realized that it had previously filed with the Commission a document entitled "TELRIC Cost Development Processes." Much of that information is now contained in the testimonies and should not have been redacted.

Therefore, Kentucky ALLTEL has herewith filed under seal revised, unredacted versions of the testimonies which highlight in yellow that material which is not to be publicly released. These revised unredacted versions are being exchanged with the parties pursuant to the parties' previously executed Confidentiality Agreement. In addition, Kentucky ALLTEL has herewith publicly filed revised redacted versions of the testimony with the Commission. None of the changes impact exhibits that were previously filed.

Respectfully submitted,

KENTUCKY ALLTEL, INC.

By: _____

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CERTIFICATE OF SERVICE

I hereby certify that a copy of our cover letter, together with the foregoing Notice of Supplemental Filings without confidential attachments has been sent this 17th day of December, 2004, by first class mail, postage prepaid to the following parties of record in this matter:

William Adkinson
Sprint Communications Company LP
3065 Cumberland Circle, SE
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Cincinnati Bell Telephone Co.
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and further certify that copies of this filing with the confidential attachments were sent this 17th day of December, 2004, to the following parties subject to the parties' confidentiality agreements:

Amy E. Dougherty, Esq.
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
Counsel for Kentucky Public Service Commission
and Commissioner Defendants

C. Kent Hatfield, Esq.
Douglas F. Brent, Esq.
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Counsel for NuVox Communications, Inc.
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Central States, Inc.

James H. Newberry, Jr.

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INQUIRY INTO THE DEVELOPMENT OF DEAVERAGED RATES FOR UNBUNDLED NETWORK ELEMENTS	)))	ADM. CASE NO. 382

DIRECT TESTIMONY
OF
MICHAEL E. SKUDIN

*** CONTAINS CONFIDENTIAL MATERIAL HIGHLIGHTED IN YELLOW ***

ON BEHALF OF KENTUCKY ALLTEL, INC.

Filed December 10, 2004

DIRECT TESTIMONY OF MICHAEL E. SKUDIN

Q. Please state your name and business address.

A. My name is Michael E. Skudin. My business address is One Allied Drive, Little Rock, Arkansas, 72202.

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

A. I am employed by ALLTEL Communications, Inc. I am the Staff Manager of Current Network Planning/Wireline.

Q. Please describe your experience in the telecommunications industry.

A. I have been employed by ALLTEL for approximately eleven years and previously was with GTE for almost nine years prior to ALLTEL's acquisition of GTE's Georgia assets. My main area of responsibility includes the current to two-year wireline network plans and the formation of the future year budget.

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

A. The purpose of my testimony is to describe the design, planning and pricing processes used to develop the material input values found in Kentucky ALLTEL's cost study. My testimony describes the processes associated with Kentucky ALLTEL's network planning function and how these processes are designed to yield the most efficient solution to network expansion and replacement requirements. I will also support the network design assumptions found in Kentucky ALLTEL's cost study.

Q. Please provide an overview of your testimony.

A. The material engineering inputs utilized in Kentucky ALLTEL's cost study provide an efficient hypothetical network design because the tools used and the steps taken by Kentucky ALLTEL for this purpose are the same tools and steps used by ALLTEL Communications engineers on a daily basis to design, price-out, and evaluate various network expansion projects. Kentucky ALLTEL's design procedures, which are used everyday and are incorporated into Kentucky ALLTEL's cost study, are consistent with efficient and customary industry practices. Kentucky ALLTEL strives to accomplish its service objectives in as miserly a fashion as is prudent given the nature of the telecommunications industry during these dynamic times.

Q. What tools does ALLTEL Communications use in its network design process?

A. The tools used in the ALLTEL network design process include CADE, ASAP, MIROR, WOMS and the CALIX pricing tool. CADE (Computer Assisted Design – Engineering) is a geographical graphic data-based computer system that maintains outside plant ("OSP") materials on a land-based background. ASAP (Access Service and Provisioning) refers to an inventory and provisioning tool for trunking and transport. MIROR (Mechanized Inventory Order Reconciliation) is a database that encompasses the entire loop including line equipment, cable pair, cross-connects, terminals directory number and address. WOMS (Work Order Management System) is a database and pricing tool that allows an engineer to cost-out the project based on the latest vendor prices for materials and the average labor and miscellaneous material costs. Finally, the CALIX pricing tool, which is supplied by ALLTEL's primary digital loop carrier ("DLC") vendor, allows an engineer to cost-out required DLC systems.

Q. What steps does Network Planning take to incorporate a project into a future year network plan?

A. Incorporating a project into the network plan involves the following four basic steps: input, investigation, inception, and integration.

1. Input: There are many ways that a project can begin life in the current process. Kentucky ALLTEL becomes aware of the need for a project from both internal and external sources. Internally, a need is identified through OSP planners' day-to-day investigations, input from operations related to maintenance issues and/or plant exhaust situations, or new development as brought to the planners by local engineers or local operations. Externally, information is provided by such sources as local planning commissions, developers, and state and county transportation departments.

2. Investigation: An OSP planner verifies the need for a project based on the above information using CADE and MIROR. Once the need is verified, the planner moves on to the inception phase where the project is designed.

3. Inception: This is the design phase of the project which is a subjective process depending on the nature of the project. For instance, installing cable for a new subdivision is fairly straightforward and is usually planned at one and a half pair per lot; an exhaust situation may be solved using multiple solutions. The guiding principle in Kentucky ALLTEL's network design practices is based on the Carrier Serving Area Design ("CSAD") concept. (*See*, Application of CSAD attached in EXHIBIT MES-1.) This practice requires conformation to a maximum of a 12 kft copper loop.

4. Integration: This process prioritizes projects to determine whether to include them in the current or succeeding capital budget years. The course of action taken here is a direct result of the fact that there is a finite amount of capital dollars.

Q. How are capital dollars allocated?

A. ALLTEL uses a tops-down approach that results in a finite capital-spending limit for all wireline projects. As a result, planners are required to spread the available capital across as much of the network as possible. Therefore, planners and engineers are incented to be as efficient as practical in order to meet as many of the network needs as possible.

Q. Does basing Kentucky ALLTEL's cost study on the tools and processes described above lead to an efficient hypothetical network design?

A. Yes. Kentucky ALLTEL's network planning and design practices lead to the most efficient solutions and are consistent with a most efficient network design as contemplated in a TELRIC model.

Q. What network design assumptions are included in Kentucky ALLTEL's cost study?

A. Kentucky ALLTEL's cost study includes the following general network design assumptions:

1. The cost study uses existing cable routes.

2. Where appropriate, interexchange routes and copper feeder are replaced with fiber.

3. 90% of replaced copper feeder is retained for distribution facilities in the forward-looking network.

4. DLCs are placed at 18,000 feet intervals from the central office.

5. Average fiber size is 72 fibers, or 48 fibers in smaller exchanges.

6. DLCs are equipped for 85% POTs and 15% ADSL.

7. 60% of ALLTEL's loops are fed directly from the central office.

Q. Are these assumptions reasonable?

A. Yes, they are as explained in greater detail below:

Assumption 1: Kentucky ALLTEL's cost study uses existing cable routes. In general, the existing routes represent the most efficient location for cable because of the use of existing right-of-ways and supporting structures.

Assumption 2: Where appropriate, interexchange routes and copper feeder are replaced with fiber. Kentucky ALLTEL is engineering to a more fiber-centric network as is the current practice of the entire industry. Copper T-1s, are still in use, and while they are still requested by customers and for network support, Copper T-1s are no longer the preferred method for DLC feeder because they are more expensive to maintain and because they will not provide the bandwidth to support Ethernet and other data services.

Assumption 3: 90% of replaced copper feeder will be needed as future distribution. It is Kentucky ALLTEL's practice to retain feeder cable for reuse whenever practical. Generally, 100% will be retained. What was formerly feeder cable providing dial tone to customers in a newly-formed customer serving area ("CSA") is now used for distribution and or sub-feeder in the back-feed (that cable back towards the original

dial tone source). The vacated pairs beyond the back-feed area are also newly designated as distribution and or sub-feeder closer to the Central Office. The same need for distribution and sub-feeder facilities exists in the forward-looking network design where copper feeder cables are being replaced by fiber. A 90% retention level is used in Kentucky ALLTEL's cost study to account for that portion which will not be required for distribution in the future.

Assumption 4: DLCs are placed at 18,000 feet intervals from the central office. In the more suburban and urban serving areas, Kentucky ALLTEL utilizes loops less than 6,000 feet because the decision of where to place a DLC is more a function of the topology than it is a matter of technical distance. However, the median loop length across the entire network approaches 9,000 feet for new construction. The median loop length of 9 kilofeet ("kft") yields a separation factor between the DLC and the central office or other DLC of 18kft. In general, such placement ensures that loop lengths will not exceed 9 kft. Most of the new construction being built is a direct result of newly developing sub-divisions. As such, it is almost always more efficient in terms of initial capital, future capital, and on-going maintenance to place fiber-fed DLCs instead of augmenting copper feeder facilities with additional copper.

Assumption 5: Average fiber size is 72 fibers. Kentucky ALLTEL generally places various fiber cable sizes from 24 to 144 strands with the median size being a 72 fiber. For large exchanges, Kentucky ALLTEL assumes a fiber size of 72 fibers because this provides the capacity needed to support future demand for high-speed data and other technologically advanced services. For smaller exchanges, Kentucky ALLTEL assumes a fiber size of 48 fibers. This cable size is more appropriate for smaller exchanges which have less demand for bandwidth.

Assumption 6: DLCs are equipped for 85% POTs and 15% ADSL. Company-wide, the average penetration of ADSL is [redacted] and is expected to increase in the future. Since ALLTEL equips more lines than are currently in use to meet prospective customer needs in a timely and efficient fashion, the 15% represents a reasonable assumption.

Assumption 7: 60% of ALLTEL's loops are fed directly from the central office. Currently, 60% of ALLTEL's customers are fed directly from the central office. My understanding is that Kentucky ALLTEL's TELRIC model assumes current central office and customer premise locations; therefore, one would expect that this percentage would remain the same under a hypothetical network assumption.

Q. Does this conclude your testimony?

A. Yes, at this time.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INQUIRY INTO THE DEVELOPMENT	)	
OF DEAVERAGED RATES FOR	)	ADM. CASE NO. 382
UNBUNDLED NETWORK ELEMENTS	)	

DIRECT TESTIMONY
OF
DAVID C. BLESSING

ON BEHALF OF KENTUCKY ALLTEL, INC.

*** CONTAINS CONFIDENTIAL MATERIAL HIGHLIGHTED IN YELLOW ***

Filed December 10, 2004

DIRECT TESTIMONY OF DAVID C. BLESSING

I. Introduction and Purpose

Q. Please state your name and business address.

A. My name is David C. Blessing. I am a principal in the consulting firm of Parrish, Blessing & Associates, Inc. My business address is 10905 Fort Washington Road, Suite 307, Fort Washington, Maryland 20744.

Q. Please describe your professional background.

A. I have over sixteen years of experience in the area of telecommunications regulation and economic analysis beginning with various managerial positions at Rochester Telephone Company in Rochester, New York. For the last eleven years, I have been a principal in my current firm. During this period, I have represented small and mid-size telephone companies in a number of regulatory proceedings before the Federal Communications Commission ("FCC") and state regulatory commissions in Alaska, Georgia, Kansas, Missouri, Nebraska, New York, Ohio, Pennsylvania, Texas and Puerto Rico. I have presented and defended analyses and testimony before regulatory commissions and government officials in the United States and abroad. My professional background also includes an appointment to the faculty of Nazareth College of Rochester, where I taught courses in economics and finance. I hold a Baccalaureate of Arts from Kalamazoo College and a Master of Arts in Economics from Fordham University. In addition, I have successfully completed all required course work and comprehensive exams for my doctorate in economics.

A detailed summary of my background is included as EXHIBIT DCB-1.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe and evaluate the specific Total Element Long-Run Incremental Cost ("TELRIC") model filed by Kentucky ALLTEL, Inc. ("Kentucky ALLTEL") in this proceeding. My evaluation confirms that the model is compliant with the current FCC TELRIC rules and reviews the model's results, inputs and assumptions. Where appropriate, I have adjusted certain assumptions and inputs used in the model and have benchmarked the adjusted model results, critical inputs and assumptions against those in the FCC's Synthesis Model. My analysis demonstrates that the Kentucky ALLTEL model is compliant with FCC rules and yields TELRIC compliant rates that are comparable with those for other incumbent local exchange carriers ("ILECs").

Q. Please provide an overview of the cost study presented by Kentucky ALLTEL.

A. As a general statement, I describe the final step in estimating Kentucky ALLTEL's forward-looking network costs. The other steps are described by Kentucky ALLTEL's other witnesses. Michael E. Skudin is submitting testimony on behalf of Kentucky ALLTEL that describes the initial processes and systems used by ALLTEL to develop material cost inputs (with respect to building new plant) to Kentucky ALLTEL's model. Kentucky ALLTEL witness, Cesar Caballero, describes the intermediary processes used to transform the company's plant record data into a format that may be used as TELRIC-model inputs. Mr.

Caballero also identifies the sources of the financial and demand inputs and describes the processes used to ensure that the inputs are forward-looking. I describe how the network inputs are further adjusted within the model to ensure TELRIC-compliance and then combined by the model with the forward-looking financial and demand data to develop TELRIC rates. My testimony then uses benchmarking techniques to further verify the reasonableness of the estimated TELRIC rates. The actual model described in my testimony together with the inputs, sources, and processes described by Mr. Skudin and Mr. Caballero and the resulting rates comprise Kentucky ALLTEL's entire "cost study."

II. Description of the FCC's Unbundling Rules

Q. Please describe the pricing standards for unbundled elements found in the federal Telecommunications Act of 1996 ("the Act").

A. Section 252(d)(1) of the Act provides that reasonable rates for unbundled elements must:

(A) (i) be based on the cost (determined without reference to a rate of return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and

(ii) be nondiscriminatory, and

(B) may include a reasonable profit.

Q. Please describe the FCC's costing/pricing methodology for unbundled network elements ("UNEs").

A. In its local competition order[1] and §§51.503, 51.505 and 51.511 of its rules, the FCC adopted a UNE rate standard that is based on forward-looking economic costs. The FCC's prescribed forward-looking costing/pricing methodology consists of a forward-looking Long-Run Incremental Cost ("LRIC") approach, to which the FCC refers as TELRIC, and a "reasonable allocation of forward-looking joint and common costs."[2] In practice, the FCC has interpreted "forward-looking" to mean the cost of provisioning the element now using the most efficient technology currently available. In addition, the FCC has defined the increment over which to estimate TELRIC cost as the total quantity or demand of the element.

Q. What is the current status of the FCC's rules related to unbundling requirements?

A. As a result of the March 2, 2004 decision by the United States Court of Appeals for the D.C. Circuit ("D.C. Circuit") regarding the FCC's Triennial Review Order ("TRO"), material portions of the TRO were vacated effective May 1, 2004.[3] As a result, the FCC prescribed interim unbundling rules ("Interim Rules"), which among other things, provide for an initial six-month period during which ILECs are required to continue providing certain UNEs pursuant to existing interconnection agreements and then an additional six-month transition period during which UNE rates may be increased. Although the Interim Rules are also

[1] *See,* First Report and Order, *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996* CC Docket No. 96-98 (Rel. August 8, 1996) ("Local Competition Order").
[2] *See,* 47 C.F.R. §51.505.

being challenged as they provide for continuing unbundling obligations already vacated by the D.C. Circuit, telecommunications carriers are presently operating under the Interim Rules pending further court action or the FCC's release of final rules expected by the end of the year.

In particular, the D.C. Circuit's vacatur and the Interim Rules pertain to the following UNEs: mass-market switching, high capacity loops, and high capacity dedicated transport. Although the D.C. Circuit vacated any request to provide these UNEs, the FCC's Interim Rules require that ILECs continue offering the subject UNEs under the same rates, terms and conditions set forth in interconnection agreements in existence as of June 15, 2004. The only rate adjustment exception provided for in the Interim Rules allows state commissions to adopt rates higher than those in effect as of June 15, 2004. Consequently, the outcome in this proceeding cannot be to lower Kentucky ALLTEL's rates that were in effect for the subject UNEs on June 15, 2004. As a result of the D.C. Circuit Decision and the FCC's Interim Rules, it appears at the very least that Kentucky ALLTEL is not required - but may agree through commercial negotiations - to continue providing the subject UNEs beyond the transition period set forth in the Interim Rules and certainly is not required to provide them at rates lower than the rates currently in existence.

[3] *See, United States Telecom Assoc. v. Federal Communications Commission and Bell Atlantic Telephone Co., et. al.*, Case No. 00-1012 ("D.C. Circuit Decision").

Indeed, the D.C. Circuit Decision and the legal uncertainties surrounding the provision and rates of UNEs, like the ones being reviewed in this proceeding, prompted the FCC to issue letters on March 31, 2004, urging both legacy and new carriers to enter into market-based negotiations with respect to continued use of UNEs. It is my understanding that Kentucky ALLTEL initiated such commercial negotiations with its business partners.

Q. With respect to existing UNE rates, what is meant by the term "forward-looking costs"?

A. The development of forward-looking costs is a form of long-run incremental costing. Incremental costs represent the additional costs of producing the next increment of a product or a service. In this sense, incremental cost looks to the future, *i.e.*, if 10 more units are produced, $20 of additional (new) labor and materials costs are incurred. In the short run, where capital costs are fixed, only variable costs are included in the calculation of incremental costs. In the long run, however, where all costs are assumed variable, the long run incremental cost is considered the cost required to produce the additional increment including any changes in capital costs such as new capital replacements and/or additions. Given the FCC's requirement that the increment is the total demand for the service or element, in the long run the incremental cost reflects the hypothetical costs of replacing the entire existing plant with the most efficient technology. Since in the long run capital is variable, the long-run incremental cost represents the costs of the hypothetical case where existing plant is replaced. In other words, where the increment equals total demand, the long-run incremental cost represents the

hypothetical costs a competitor would incur to replicate the network of the incumbent. As such, long-run incremental or forward-looking costs will not resemble the real costs faced by an ILEC whose network actually is comprised of many vintages of plant.

Q. What is a compliant UNE rate level based on the FCC's methodology?

A. The FCC's analysis set forth in the Local Competition Order is not reflective of actual market circumstances and does not replicate an ILEC's actual costs. The FCC's analysis provides that a compliant UNE rate is representative of the costs that either an ILEC or a new entrant would incur to build an entirely new network using the most efficient currently available technology. Thus, a compliant UNE price, all else being equal, should be set where a competitor is indifferent between building its own facilities or leasing UNEs from the ILEC. Because the FCC assumed that the ILEC is generally larger and better able to exploit economies of scale, use of the ILEC's forward-looking costs to estimate UNE prices has been required.[6]

Q. How are UNE rate levels consistent with FCC's requirements determined in practice?

A. The standard methodology used to arrive at UNE rates compliant with FCC TELRIC requirements involves development of a model that is then populated

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4 *Local Competition Order*, 11 FCC Rcd , at ¶ 618.
5 *Id.* at ¶ 620.
6 *See, Local Competition Order* at ¶¶ 679-703.

with forward-looking investment, expense, and demand inputs.[7] A comparison of Kentucky ALLTEL cost study's resulting rates to the rates of other companies in Kentucky reflects that the UNE rates that are derived from the adjusted Kentucky ALLTEL model presented herein are reasonable when compared to previously accepted forward-looking model estimates of costs for BellSouth and Cincinnati Bell in Kentucky. However, in order to be meaningful, any comparison must also consider the differences among study areas including, but not limited to, size, density and demographics and should not be just a straight comparison of cost estimates.

Q. Is there potential harm if UNE rates are less than true forward-looking costs?

A. Yes. The potential harm is much greater if UNE rates are too low than if UNE rates exceed the appropriate level. If UNE rates are set below true forward-looking costs, competitors will never be incented to build their own facilities. If UNE rates exceed this level, then competitors will be induced to build their own facilities. Construction of alternative facilities by competitors is necessary to realize the benefits of competition. These seem to be the same underlying principles as in Kentucky Governor Ernie Fletcher's new pro-business initiative which encourages economic development through investment incentives. Thus, in the long run, potential consumer harm is much greater if the approved UNE rate is below true forward-looking cost as opposed to above it.

[7] A TELRIC model is a form of a traditional LRIC model.

III. Compliance of the Kentucky ALLTEL Model with the FCC's Unbundling Rules

Q. Is Kentucky ALLTEL's model compliant with the legal requirements found in the Act and the current FCC rules?

A. Yes. Kentucky ALLTEL's model is compliant with current TELRIC requirements. As described in detail below, Kentucky ALLTEL's model together with the adjustments proposed in my testimony fully comport with all requirements set forth in the Act and the FCC's rules by simulating the design and construction costs of a forward-looking network.

Q. How does the Kentucky ALLTEL model develop TELRIC-compliant costs?

A. As is explained in greater detail in the testimonies of Mr. Skudin and Mr. Caballero, Kentucky ALLTEL's model utilizes established engineering systems used by ALLTEL's own Network Planning engineers to simulate the forward-looking network design. Because the Network Planning engineers are competing for finite capital dollars with other projects, these systems are designed to yield the most efficient, least cost means of placing facilities. This is in marked contrast to most TELRIC models that cannot help but be biased in their inputs, algorithms and assumptions. Kentucky ALLTEL model's use of established systems, however, mitigates any risk of bias in network cost estimates.

Q. Does Kentucky ALLTEL's model contain assumptions and inputs and yield results that are consistent with those previously used by the Commission and the FCC in determining forward-looking costs for UNE rate development and federal universal service disbursement determinations?

A. Yes, it does. As demonstrated below, the adjusted Kentucky ALLTEL model is consistent with other TELRIC models used in Kentucky. Furthermore, benchmarking critical inputs and assumptions against those found in the FCC's Synthesis Model shows that Kentucky ALLTEL's forward-looking cost factors and investment metrics are consistent with those used by the FCC. Finally, the UNE cost results derived from Kentucky ALLTEL's model are reasonably comparable to the corresponding costs derived from the FCC's Synthesis Model.

IV. Description of the Kentucky ALLTEL Model

Q. Please describe the Kentucky ALLTEL TELRIC model.

A. Kentucky ALLTEL's model uses a TELRIC methodology to develop UNE rates. Forward-looking network investment levels are estimated using forward-looking network material cost and a series of cost factors (such as additional materials costs, sales tax, engineering, freight, installation, power and common costs, etc.) which are added to derive a total amount of network investment. Utilization percentages and fill rates are then applied to the total investment in order to develop total utilized network investment. Next, annual cost factors (such as depreciation expense, return on investment, income taxes, common costs and direct expenses -such as maintenance expense, network costs, property taxes, etc.) are applied to network investment to develop total annual cost. The total annual cost is then converted into a monthly amount for each applicable UNE element. Lastly, monthly costs are divided by the forward-looking demand to develop the UNE rate for that element. These steps are described in more detail below.

Q. How does Kentucky ALLTEL's cost study develop forward-looking network material costs?

A. As described in Mr. Caballero's testimony, Kentucky ALLTEL's cost study uses existing network loop facilities information from ALLTEL's engineering records to develop the forward-looking network investment. In using the existing layout, the cost study recognizes that the existing cable routes represent the most efficient locations for plant. It is important to note that the cost study uses only the existing layout and *not* the embedded costs of the plant.

Q. Please describe the development process for the utilized network investment.

A. Kentucky ALLTEL's model develops "utilized network investment" in order to develop the annual costs and ultimately the rate for a given UNE. "Utilized network investment" is developed by taking the loop materials costs which are based upon forward-looking network investment and applying costs factors. Included in these cost factors are additional materials, sales tax, engineering freight and installation ("EF&I"), power and common costs. In addition, [redacted] fill and utilization factors are applied. The fill factor is applied at [redacted] because the material investment used by the model has been developed for forward-looking growth. The utilization factor is applied at [redacted] because the entire forward-looking network is used to develop the costs. The resulting investment represents the total utilized network investment necessary for the forward-looking network. These steps can be seen by reviewing any of the output spreadsheets in the model. For example, the spreadsheet labeled, "Loop Aerial Copper," begins with material

costs on Line 1, applies the factors discussed above, and arrives at utilized investment on Line 19.

Q. Please describe the process used by Kentucky ALLTEL to develop the annual cost.

A. In order to calculate the proper rate for a given UNE, Kentucky ALLTEL's model develops total annual costs by applying annual cost factors to the utilized network investment. Annual cost factors include components such as depreciation expense, return on investment, income taxes, direct expenses, and common costs. Depreciation expense is based upon the straight-line depreciation method and estimated salvage values and depreciation lives. Return on investment is based upon an [redacted] rate of return applied to net investment. A levelized amount for net investment is calculated as [redacted] of gross investment. Income taxes are calculated by applying the effective tax rate to the return on investment. Direct expenses are based upon a direct expense factor that is applied to utilized network investment resulting in total direct expense related to the investment. Common costs are then developed by applying a common cost factor to the total direct costs (which include depreciation expense, return on investment, income taxes, and direct expenses). Finally, the resulting common costs are added to direct costs, representing the total annual cost. Annual cost is then converted to monthly cost. An example of the application of these steps is shown on Lines 20 through 34 of the Loop Aerial Copper Spreadsheet contained in the model attached hereto as Exhibit DCB 1.8.

Q. How does Kentucky ALLTEL's model develop forward-looking demand?

A. Kentucky ALLTEL's model uses existing current demand from various ALLTEL sources (*e.g.*, Carrier Access Billing System ("CABS"), Access Service and Provisioning System ("ASAP")) to develop forward-looking demand. Five-year access line and trunk forecasts are developed by network engineering and used to develop five-year period, forward-looking growth rates for access lines and trunks. These five-year forward-looking growth rates are then applied to existing demand to determine the forward-looking demand. For some elements, loop equivalency factors are used to determine the forward-looking demand; such loop equivalencies are based upon that element's ratio of investment to two-wire loop investment.

Q. How does Kentucky ALLTEL's model develop UNE rates?

A. Kentucky ALLTEL's model divides total annual costs (as developed by the model for the forward-looking network) by the forward-looking demand (*e.g.*, minutes, lines) to develop a given UNE rate. On the Loop Aerial Copper Spreadsheet, this calculation is shown on Line 36 for a portion of a loop. On other output spreadsheets, the steps described above develop the monthly unit costs for each loop, switching and transport component; assembling these components yields the UNE rates. For loops, the components are assembled on the spreadsheet labeled, "Total Loop Cost."

Q. Is the Kentucky ALLTEL model's use of forward-looking assumptions and inputs to develop UNE rates consistent with other cost models you have analyzed?

A. Yes. Kentucky ALLTEL's model applies proper TELRIC principles in developing UNE rates. As such, the model uses forward-looking assumptions and inputs in order to properly develop a forward-looking network investment based upon a forecasted growth in demand. (Kentucky ALLTEL uses five-year growth.)

Kentucky ALLTEL's process is consistent in its rate development process with other cost models that I have studied and analyzed. Those models include HCPM/Synthesis Model, Puerto Rico Telephone Company Forward Looking Model, and the Alaska Communications Systems 7.2 Cost Model ("ACS"). The major difference is in the forward-looking plant quantity inputs. The Kentucky ALLTEL cost study develops forward-looking plant quantities by starting with existing plant records and cable routes. The ACS model actually simulates the rebuild of a sample of its network.[8] The Puerto Rico and FCC models do not physically simulate the rebuild of the network but instead use algorithms to estimate forward-looking network plant quantities. As discussed previously, Kentucky ALLTEL's approach with respect to simulation of the network build-out with actual routes and rights-of-way is superior to the FCC's approach.

Q. Is the Kentucky ALLTEL model the appropriate model to use in this proceeding?

[8] The resulting ACS simulation called for the use of existing cable routes which provides support for Kentucky ALLTEL's assumption that the existing cable routes are the most efficient.

A. Yes, it is. The Kentucky ALLTEL model is a forward-looking cost model based upon the necessary TELRIC standards needed to develop UNE rates. Kentucky ALLTEL's model uses company-specific inputs, standard engineering practices, and industry standards in a forward-looking manner to develop UNE rates. As it is consistent with the methodology used and widely accepted in the industry, the Kentucky ALLTEL model is the only complaint platform from which to develop UNE rates that has been presented in this proceeding.

V. Suggested Adjustments to the Model

Q. Have you made any adjustments to the model that Kentucky ALLTEL originally filed in this proceeding?

A. Yes. In analyzing the model, I discovered certain assumptions and inputs that I believed need to be changed in order to make the model more consistent with TELRIC. As a result, I made two types of adjustments to the model. One set of adjustments applies to the input data used in the model, and the second set of adjustments revises assumptions in the model platform. My changes were accomplished entirely within the TELRIC model framework and did not involve any revisions to the processes described in Mr. Caballero's testimony.

Q. Are both input and platform adjustments reflected in the revised model?

A. Yes. All changes to the model and a copy of the resultant model are contained in Exhibit DCB 1.8.

Q. How was the model altered by these changes?

A. In the revised model (Exhibit DCB 1.8), I have added a new sheet at the end of the file titled, "Changes." The "Changes" sheet lists all of the adjustments in one column next to the original values/assumptions from Kentucky ALLTEL's original model. I then added a third column in which cells a "(y)es or (n)o" can be placed to indicate either acceptance or rejection of the adjustment. The "toggling" of adjustments by indicating a "y" or "n" makes it easy for the user to review the impact of my changes on the rates. Finally, all cells in the model that are impacted by the adjustments are highlighted in yellow; a listing of all cell changes is also provided in Exhibit DCB 1.2.

VI. Input Adjustments

Q. Generally, what input adjustments did you make?

A. The input adjustments are as follows:

1) Adjust the amount of loop fiber equipment; and

2) Adjust the amount of loop fiber cable investment.

These adjustments are summarized in Exhibit DCB 1.1.

A. Input Adjustment 1

Q. What is the adjusted investment level for loop fiber equipment, and why did you make this adjustment?

A. The total investment for loop fiber equipment should be [redacted] instead of [redacted]. The source for this level of investment is Kentucky ALLTEL's Work Order Management System ("WOMS") Summary Report. When Kentucky ALLTEL's model was originally populated with investment numbers, the

investment for loop fiber equipment was incorrectly sourced and, therefore, the wrong level of investment was created. My suggested adjustment reduces the investment for loop fiber equipment by approximately [redacted]. Exhibit DCB 1.3 details where in the Kentucky ALLTEL model this adjustment was made.

B. Input Adjustment 2

Q. What is the adjusted investment level for loop fiber cable, and why did you make this adjustment?

A. Loop fiber cable investment dollars contained in Kentucky ALLTEL's original model represented the total investment in fiber cable and not just loop fiber investment. This resulted in a partial double counting of fiber investment in the model. To correct this, the revised model in Exhibit DCB 1.8 correctly subtracts the interexchange transport facility and dedicated interexchange cable investment from the loop fiber cable investment, thereby eliminating the double counting of fiber investment. This adjustment reduces the loop fiber cable investment by approximately [redacted] million. Exhibit DCB 1.1 details where in the model this change was made.

VII. Revised Assumptions

Q. Please explain, in general, the model platform assumptions you revised.

A. I made revisions with respect to the following five model assumptions:

1) Economic depreciation life,

2) Rate of return,

3) Accounting for structure sharing, and

4) Attribution of investment for line cards.

5) Loop equivalencies for different loop types.

All of these revisions are reflected in the revised model (Exhibit DCB 1.8).

A. Assumption Adjustment 1

Q. What depreciation lives are used in Kentucky ALLTEL's model?

A. Originally, Kentucky ALLTEL's model used the following depreciation lives:

Switch hardware [redacted]
Switch software
Circuit equipment
Copper cable
Fiber cable

Q. What changes did you make to these depreciation lives, and why are the changes appropriate?

A. The revised model utilizes the lower end of the range of the economic deprecation lives adopted by the FCC in CC Docket No. 98-137. While this may be a conservative assumption, it is reasonable based on the FCC's conclusion in its UNE Pricing NPRM that the ranges are forward-looking.[9] Exhibit DCB 1.4 contains the FCC depreciation lives.

Q. What is the impact to Kentucky ALLTEL's depreciation lives using the FCC's low-end depreciation lives as described above?

[9] In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers, Notice of Proposed Rulemaking, WC Docket No. 03-173, Released September 15, 2003, ¶ 95.

A. The overall impact is a slight increase in the economic lives of equipment, which in turn reduces depreciation expense. A comparison of this minor change in depreciation lives is listed below in Table 1.

Table 1

Depreciation Lives

Type of Asset	KY ALLTEL	FCC
Switch hardware	[redacted]	12 yrs
Switch software		no data
Circuit equipment		11 yrs
Copper cable		20 yrs
Fiber cable		25 yrs

B. Assumption Adjustment 2

Q. What modifications did you make to the rate of return assumption initially used in the Kentucky ALLTEL model, and why did you make this adjustment?

A. I modified the rate of return assumptions to better reflect the true level of capital cost. The annual capital cost calculation contained in the original model filed by Kentucky ALLTEL understated costs. Costs were understated as a result of a simplifying assumption for net investment contained in the model. Kentucky ALLTEL's model calculated net investment by assuming a [redacted] average of gross investment over the useful life of an asset. Although this level is true on average, Kentucky ALLTEL's assumption will only be true for the one year at the mid-point of an asset's life. However, in the years prior to the mid-point, the level of net investment is understated, and in the years after the mid-point, the level of investment is overstated. When the time value of money is considered, greater

weight is placed on the early years causing the understated costs in the early years not to be fully offset by the overstatement of costs in the later years.

Q. Have other jurisdictions recognized the impact of the timing of cash flows on the capital cost calculation?

A. Yes. The FCC, in calculating the level of high cost support for purposes of universal service (*e.g.*, Hybrid Cost Proxy Model or "HCPM"/Synthesis Model), takes into consideration the timing of these cash flows in the calculation of capital carrying costs. It is on this FCC methodology that I based my adjustment.

Q. How does the modified rate of return address Kentucky ALLTEL's understated capital costs?

A. The FCC's HCPM methodology is different from the approach used in Kentucky ALLTEL's original filing. The FCC's approach combines both the rate of return and the depreciation expense into a capital carrying cost factor ("KCCF") and applies the KCCF to a company's gross investment in order to calculate the annual capital cost of each UNE. The factors are based on the following data:

1. Depreciable life of the required investment,
2. Rate of return on the net asset, and
3. Income tax gross-up on the equity component of the return.

The FCC methodology assumes the same straight-line depreciation, rate of return (11.25%) and tax gross-up used in Kentucky ALLTEL's initial filling. The fundamental difference, however, is that the FCC calculates return on investment, tax gross-up and depreciation expense annually on the value of the net investment (gross plant at the end of the prior year minus depreciation expense of the current

year). The FCC's approach is more complex since the capital carrying costs are different each year, producing different rates each year.

A common approach which Kentucky ALLTEL initially employed involved applying the appropriate capital cost factors to the average investment level. As discussed previously, using average investment levels understates the carrying costs over the life of an asset. The FCC's approach used in the HCPM and in developing the return component in the revised Kentucky ALLTEL model avoids this problem by "levelizing" the capital carrying costs. The costs for each year of the life of the assets are calculated and then, similar to a traditional mortgage amortization schedule, a constant annual cost is derived; the net present value of the constant or "levelized" cost is equal to the net present value of the actual costs.

Q. How was the rate of return calculation modified to reflect this constant, or levelized, capital carrying cost?

A. Calculation of the rate of return for the various asset classes used in the forward-looking network is shown in Exhibit DCB 1.7. Exhibit DCB 1.7 shows the derivation of the revised rate of return for the depreciation lives of the five different assets classes used in the revised model ([redacted]). As discussed above, the revised model uses the same baseline rate of return and tax gross-up assumptions used in Kentucky ALLTEL's original model (lines 10 and 15 respectively of the exhibit). However, the revised model uses the effective capital carrying cost for each year of an asset's life to calculate the constant

KCCF (line 20). By recognizing that the carrying cost is simply the combination of the three components shown below, the capital charge is then converted into a rate of return for the asset class that may be used in the revised Kentucky ALLTEL model:

1) Depreciation expense,
2) Return on investment, and
3) Income tax-gross-up on the equity component of the return.

Lines 21 and 22 of Exhibit DCB 1.7 calculate the required rate of return necessary to derive the same level of costs as the appropriate capital carrying costs when the three components are combined. Line 21 shows the required return on the basis of gross investment, and Line 22 reflects the return on net investment. The modified return must be stated in terms of the net investment, since the Kentucky ALLTEL model applies return to net investment in contrast to the capital carrying charges which represent gross investment.

C. Assumption Adjustment 3

Q. How does the original Kentucky ALLTEL model account for structure sharing?

A. Originally, Kentucky ALLTEL's model assumed that [redacted] plant structure would be shared with other companies (*i.e.*, utilities).

Q. Why did you revise the model to reflect structure sharing?

A. A structure frequently may be shared between carriers and/or other utilities. For example, a telephone company and an electric company may both have facilities

on the same pole or in the same trench. In such instances, structure sharing may reduce the necessary investment in structure assets.

Q. How has Kentucky ALLTEL's model been adjusted to recognize structure sharing?

A. [redacted]

Q. How was the sharing structure input proxy calculated?

A. The proxy was calculated by running the FCC's HCPM using GTE South, Inc.'s Kentucky study area.[10] First, investment levels from a default run of the HCPM were extracted. Default HCPM results were based on the FCC's default structure sharing input percentages to recognize that some structure investment was shared. The next step involved re-running the HCPM model with a revised input file containing a [redacted] structure sharing input. The difference in investment between the default output (with structure sharing) and the revised output (without structure sharing) is [redacted] for loop investment and [redacted] for inter-office facility investment. Thus, the proxy used to account for structure sharing in Kentucky ALLTEL investment is a reduction in loop investment of [redacted] and a reduction in interoffice termination investment of [redacted] These calculations are contained in Exhibit DCB 1.5.

D. Assumption Adjustment 4

Q. Did you adjust the amount of digital loop carrier ("DLC") line card investment that is assigned to UNE two-wire and four-wire loops, and if so, why?

A. In Kentucky ALLTEL's original model, DLC line card investment contained both plain old telephone service ("POTS") cards and combination ADSL/POTS cards. Because the combination cards provide the capability for both POTS and ADSL service, I adjusted the overall percentage of loop copper equipment by [redacted] This adjustment was made to take out line card investment associated with ADSL. As a result, loop copper equipment in the model now represents only investment for DLC equipment, pair gain equipment and serving area interface equipment.

Q. How did you calculate the investment reduction of [redacted] for loop copper equipment?

A. To calculate the investment reduction for loop copper equipment, I identified the change in DLC card investment required to serve POTS lines versus the investment in combination POTS/ADSL cards. The overall change to the DLC provisioned with POTS-only cards was [redacted], or a [redacted] reduction of overall DLC investment. Since DLC investment is [redacted] of the total loop copper equipment investment in Kentucky ALLTEL's model, the overall reduction to investment for loop copper equipment is [redacted] (or, [redacted]). These calculations are contained in Exhibit DCB 1.6.

E. Assumption Adjustment 5

[10] GTE South Inc.'s Kentucky study area became Kentucky ALLTEL's Lexington study area.

Q. Why did you revise the loop equivalency assumptions?

A. In the original filing the loop equivalencies were assumptions with no supporting documentation. The revised model contains inputs based on an analysis found in Exhibit DCB 1.10.

VIII. Confirmation of Appropriate and Reasonable Rates via Benchmarked Results

Q. Why is the FCC's distinction between non-rural and rural companies in its universal service procedures important to this case?

A. Due to the intrinsic differences in cost structures between non-rural and rural carriers, the FCC determined that forward-looking cost models are appropriate for non-rural ILECs but may not be for rural ILECs.[11] Further, not only are the levels of costs dissimilar between non-rural and rural carriers, but so are the underlying characteristics of costs. These differences exist because rural carriers generally serve fewer customers in less dense areas, lack the same level of economies of scale and scope as non-rural carriers, and generally are not able to respond as quickly to changing markets. The FCC's decision casts doubt about the reliability of TELRIC models to estimate forward-looking costs of rural carriers. Thus, evaluation of TELRIC model results for rural carriers merits special consideration.

Q. Does the FCC consider Kentucky ALLTEL to be a rural or non-rural company for purposes of determining federal universal service disbursements?

[11] *Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, Report and Order, at ¶291.

A. Kentucky ALLTEL is comprised of two study areas: Kentucky ALLTEL – Lexington and Kentucky ALLTEL – London. The Lexington study area is non-rural for federal universal service purposes, while the London study area is rural. Given this rural component, special consideration should be given to the Kentucky ALLTEL model, and benchmarking the model's results is one way to accomplish this.

Q. How do the results from the revised Kentucky ALLTEL model compare to those of other models?

A. While I do not have access to the models used to develop current UNE rates for BellSouth or Cincinnati Bell, I was able to review the output from the FCC's HCPM model for study areas in Kentucky, including that which has now become Kentucky ALLTEL-Lexington. Comparing these outputs to the revised Kentucky ALLTEL model demonstrates that the relative investment per loop and the resulting cost per loop are similar to those produced by the FCC's model. The first comparison I made was to the HCPM output for what is now Kentucky ALLTEL-Lexington. Further, I compared the revised Kentucky ALLTEL model output for all of Kentucky ALLTEL to the results of the HCPM runs on BellSouth and Cincinnati Bell. These comparisons are provided below in Table 2.

Q. How did you obtain HCPM output results for the Kentucky ILECs?

A. I downloaded results from the FCC's HCPM model from the FCC's website (www.fcc.gov) for the Kentucky GTE South, Inc., South Central Bell-Ky, and Cincinnati Bell-Ky study areas. The former GTE properties in Kentucky acquired

by Kentucky ALLTEL consist of two study areas – Kentucky GTE South and the GTE-Contel. As referenced above, Kentucky ALLTEL renamed GTE South to Kentucky ALLTEL – Lexington, while GTE Contel is now the Kentucky ALLTEL-London study area. Since the London study area is rural, it was not included in the FCC's HCPM. I then used the HCPM output for GTE South, BellSouth and Cincinnati Bell to calculate investment per line and cost per loop. These metrics were then compared to the corresponding values derived from the revised Kentucky ALLTEL model.

Q. Please describe the results of these comparisons.

A. Table 2 below compares the results referenced in my preceding answer. To begin, the HCPM reveals that GTE South's loop plus network interface device ("NID") rate is $26.84, while Kentucky ALLTEL's model reflects the rate for the corresponding loop plus NID for the Lexington study area as [redacted]. This [redacted] difference assures that results generated from the Kentucky ALLTEL model are very reasonable when compared to the FCC's HCPM model. I reached a similar conclusion when I compared the loop plus NID rate for both Kentucky ALLTEL study areas to the corresponding values estimated by the HCPM for South Central Bell-KY and Cincinnati Bell-KY study areas.

[redacted]

Q. How do you reconcile the fact that BellSouth's UNE rate is significantly lower than the result produced by Kentucky ALLTEL's model?

A. Differences between companies' overall sizes and geographical areas served account for different cost structures and resulting UNE rates. In addition, care must be taken when comparing the commission-established UNE rates of a Regional Bell Operating Company ("RBOC") like BellSouth to those of an independent like Kentucky ALLTEL. Comparing BellSouth's Kentucky operations to Kentucky ALLTEL's operations is misleading and somewhat meaningless without also recognizing the size of each company and the geographic area each serves. Additionally, many RBOC UNE rates used for interconnection contracts are the results of negotiations and were influenced significantly by Section 271 considerations whereby the parties to those proceedings agreed to specific levels of UNE rates that may or may not have had a direct relationship to the RBOC's actual forward-looking costs. Thus, comparisons between Kentucky ALLTEL and RBOC UNE rates must also consider inherent differences in cost structures due to size and may be misleading because of RBOC incentives to achieve other goals.

Q. Did you only compare UNE rate levels?

A. No. In Exhibit DCB 1.9.2, I analyzed the amount of total investment per line each model used to construct its forward-looking network. The comparison of the HCPM output ($116.98/loop) and the Kentucky ALLTEL – Lexington output [redacted] suggests that the Kentucky ALLTEL model produces reasonable investment levels based on the number of lines served in the study area.

IX. Conclusion

Q. What conclusions have you drawn with respect to Kentucky ALLTEL's model?

A. After reviewing Kentucky ALLTEL's model and incorporating all the adjustments discussed above, I concluded that the Kentucky ALLTEL model, as revised in Exhibit DCB 1.8, produces reliable and reasonable UNE rates and that the resulting UNE rates contained in DCB Exhibit 1.9.4 represent appropriate UNE rates for Kentucky ALLTEL.

Q. Does this conclude your testimony?

A. Yes, at this time.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INQUIRY INTO THE DEVELOPMENT OF DEAVERAGED RATES FOR UNBUNDLED NETWORK ELEMENTS	)))	ADM. CASE NO. 382

DIRECT TESTIMONY OF CESAR CABALLERO

ON BEHALF OF KENTUCKY ALLTEL, INC.

*** CONTAINS CONFIDENTIAL MATERIAL HIGHLIGHTED IN YELLOW ***

Filed December 10, 2004

DIRECT TESTIMONY OF CESAR CABALLERO

Q. Please state your name and business address.

A. My name is Cesar Caballero. My business address is One Allied Drive, Little Rock, Arkansas, 72202.

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

A. I am employed by ALLTEL Communications, Inc. as the Director of Telecom Policy.

Q. Please describe your experience in the telecommunications industry.

A. I have been employed by ALLTEL Communications for over eleven years. My main areas of responsibility have included access and interconnection pricing and policy as well as federal regulatory analysis.

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

A. I will discuss the appropriate venue for establishing rates for unbundled network elements ("UNEs"), which is commercial negotiation and not protracted TELRIC proceedings. I will also describe the input sources for Kentucky ALLTEL's Total Element Long-Run Incremental Cost ("TELRIC") cost study filed in this proceeding. I will explain how the cost study uses these input sources and ALLTEL network planning tools described by Kentucky ALLTEL witness, Michael E. Skudin, to estimate forward-looking material costs. I will also describe the sources of the cost study's demand and financial inputs. Finally, I will explain how Kentucky ALLTEL analyzes data from these various sources to develop the inputs used in the cost study.

Q. Please provide an overview of your testimony.

A. The telecommunications industry has changed significantly in the five years since the Commission initiated this proceeding. During that time, the industry has moved away from protracted and litigious TELRIC proceedings and is opting instead to develop business partner relationships through commercial negotiations. This proceeding, however, is currently still styled as a traditional TELRIC investigation. Kentucky ALLTEL's cost study filed in this proceeding, the inputs (*e.g.*, material costs, financial information, demand, and labor costs) utilized are TELRIC-compliant and the most appropriate for Kentucky ALLTEL to use in this study. The sources for the raw data and direct inputs to the cost study include use of existing Kentucky ALLTEL engineering systems and planning tools in a manner consistent with Kentucky ALLTEL's own budgeting processes. Finally, raw data is transformed from the existing network design into the forward-looking network design with associated material costs.

Changing Times and Commercial Negotiations

Q. Are you aware how this proceeding originated?

A. My understanding is that the Kentucky Public Service Commission ("Commission") initiated this proceeding approximately five years ago on December 10, 1999, as a result of the release of the Federal Communications Commission's ("FCC") order implementing intrastate high-cost universal service support for non-rural local exchange carriers ("LECs"). (*See*, CC Docket No. 96-45.) The FCC's order required states to establish different rates for interconnection and unbundled network elements ("UNEs") in at least three geographic areas pursuant to the FCC's rules.

On January 19, 2000, GTE South Incorporated ("GTE"), BellSouth Telecommunications, Inc. ("BellSouth"), and several other companies submitted a Joint Stipulation regarding UNE deaveraging. BellSouth's and GTE's stipulated rates were based on UNE loop rates established during arbitration proceedings for BellSouth and GTE and were $20.00 and $19.65, respectively.

The Commission approved the Joint Stipulation on March 24, 2000, with the rates becoming effective May 1, 2000. The rates contained in the approved Joint Stipulation were to remain in effect until the Commission completed its investigation into deaveraged UNE rates. On May 25, 2000, the Commission issued an order seeking additional cost information to complete its investigation including cost characteristics of different geographic areas, minimum number of UNEs, and the proper method to determine prices and establish prices for deaveraged UNEs.

Kentucky ALLTEL acquired Verizon South's Kentucky assets in August of 2002. Thereafter, in order to allow Kentucky ALLTEL a period of time to determine Kentucky ALLTEL-specific costs, Kentucky ALLTEL begain and is still operating under Verizon interim rates. (*See*, February 13, 2002 Order in Case No. 2001-00399.) Kentucky ALLTEL then filed its TELRIC cost study with the Commission on February 5, 2004. Kentucky ALLTEL also filed additional documentation with the Commission on March 1, 2004 and attended an informal conference on March 9, 2004. Throughout the course of this proceeding, Kentucky ALLTEL has responded to over 42 discovery requests by

Nuvox Communications ("Nuvox"), not including numerous informal responses that Kentucky ALLTEL provided directly to Nuvox.

Q. Is this proceeding still an appropriate venue in which to establish operating relationships between companies, including UNE rates?

A. No. The industry has changed significantly in the five years since this proceeding was initiated. As discussed by Kentucky ALLTEL witness, David Blessing, the United States Court of Appeals for the D.C. Circuit vactated material portions of the FCC's rules with respect to UNEs. The uncertainty with respect to such obligations prompted the FCC to advocate commercial negotiations over traditional TELRIC proceedings. Companies across the country, at the urging of the FCC, have begun to negotiate commercial agreements for interconnection rather than engaging in traditional and protracted TELRIC proceedings. Mutually negotiated agreements allow companies to arrive at more beneficial terms, rates and conditions and provide for more partnership relationships rather than adversarial ones. Commercial negotiations also allow all parties involved including the Commission the opportunity to avoid complex and litigious TELRIC cost proceedings. Thus, the modern approach – as advocated by the FCC – is to allow carriers to commercially negotiate agreements which better represent their interests than those arbitrated by state commissions and are a more efficient use of parties' resources.

Q. Has Kentucky ALLTEL followed the FCC's directive and entered into commercial negotiations with other companies in Kentucky?

A. Yes. Kentucky ALLTEL initiated commercial negotiations with SouthEast Telephone, Inc. ("SouthEast") that appear to be reaching a mutually satisfactory conclusion. The goal

of such negotiations is to allow both companies to further their respective business plans by reaching mutually agreed upon rates and terms. Kentucky ALLTEL has also offered to enter into similar negotiations with Nuvox and is willing to negotiate with any company in a similar manner as Kentucky ALLTEL believes that this is a much more efficient and productive use everyone's resources.

Model Inputs

Q. Please describe the inputs to the Kentucky ALLTEL model.

A. The inputs can be grouped into four major categories. The first category contains forward-looking investment (*i.e.*, material costs). The second type of inputs includes financial data used to develop annual carrying charge factors, capital cost and common cost factors, which when applied to the estimated forward-looking material cost, produce an annual forward-looking revenue requirement. The third category of inputs is used to develop forward-looking demand over which costs will be allocated. The fourth category consists of labor and material costs used in development of non-recurring charge ("NRC") amounts.

Q. How did Kentucky ALLTEL develop TELRIC-compliant material cost inputs?

A. Material cost inputs, found in the Import Data Spreadsheet of the model, were developed from a series of input processes, which utilized data from established engineering systems and incorporated processes used by ALLTEL's network planning engineers to estimate material costs associated with a forward-looking network design. Since these engineering systems and processes are designed to yield the most efficient, least-cost

means of placing facilities using the most up-to-date technology, the systems meet the TELRIC standard established by the FCC.

Q. How did Kentucky ALLTEL develop TELRIC-compliant financial inputs?

A. Kentucky ALLTEL's model uses four types of financial inputs. Annual carrying charges were developed based on the actual ratio of expense to investment; data for these ratios were derived from Kentucky ALLTEL's Part 32 account balances. Once incorporated into the model, the expenses-to-investment ratios were adjusted by a user-defined forward-looking adjustment factor in order to yield a TELRIC-compliant ratio. (This TELRIC-compliant ratio is explained in more detail by Kentucky ALLTEL witness, David Blessing.) Depreciation rates were based on FCC-approved economic service lives. The return on capital used in the model was based on the FCC's default value of 11.25%, Kentucky ALLTEL's capital structure, and the effective tax rate based on the current federal and state income tax rates. The common cost factor used in the model was developed based on the same Part 32 account balances net of retail expenses. The model's Common Cost Worksheet shows the development of these financial inputs.

Q. How did Kentucky ALLTEL develop TELRIC-compliant demand inputs?

A. Kentucky ALLTEL based its forward-looking, TELRIC-compliant demand on current demands experienced by Kentucky ALLTEL and then adjusted those demands for forecasted changes.

Q. How did Kentucky ALLTEL develop TELRIC-compliant NRC inputs?

A. Kentucky ALLTEL's NRC inputs were derived from discussions with operating groups responsible for the particular tasks. Current labor rates were adjusted in the Model by forward-looking adjustment factors to account for anticipated wage increases and inflation.

General Material Costs

Q. Please describe in greater detail how material cost input data were developed.

A. Forward-looking material cost inputs were developed as follows:

a. Loop material costs were developed through the loop investment process, which developed the forward-looking outside plant network design and then calculated material costs for each local loop component, including the network interface device ("NID").

b. Transport material costs were developed through the interexchange ("IX") investment process, which developed the forward-looking network for IX transport facilities and then calculated material costs for each IX loop component. Current loop quantities and local loop electronic facilities were also developed through this process.

c. Material costs for digital line concentrators ("DLCs") were derived using the material costs for DLCs and a portion of the local loop port ("DLC process").

d. Switching material costs resulted from the switch investment process, which developed material costs for all switching investment, loop termination equipment, and a portion of the local loop port.

Q. How are the data contained in the network planning systems described in Mr. Skudin's testimony adjusted to reflect the forward-looking network design?

A. Through the various processes described above, Kentucky ALLTEL adjusted the raw data to reflect the efficiencies expected in a forward-looking network design. These adjustments included the optimization of a cable size along a given route, conversion of copper feeder cable into fiber where appropriate, efficient deployment of DLCs, and replacement of any non-standard or obsolete cable sizes with sizes currently in use. In addition, forward-looking switch material costs were based on current switch locations, appropriate forward-looking size requirements, and current discounted vendor pricing.

<u>Loop Material Costs</u>

Q. What is the first step in the loop investment process?

A. The loop investment process begins with development of the forward-looking network. To develop the forward-looking network, Kentucky ALLTEL downloaded the existing outside plant network design from the ALLTEL CAD/E ("Computer-Assisted Design/Engineering") records maintained by ALLTEL engineering personnel. These engineering data consisted of all copper and fiber cable for Kentucky ALLTEL along with applicable location information. Location information is usually defined by "lead and structure," where "lead" refers to a route originating at a central office or branching off of another lead, and "structure" refers to a point along the lead, such as a pole, manhole, pedestal, or DLC. Since the lead and structure information was not sufficiently populated for Kentucky ALLTEL, the CAD/E Item of Plant Identification ("IPID")

number was used instead of the structure number. The IPID provides a unique location for each cable segment in the network design.

Q. How did the loop investment process replace copper feeder cable with fiber?

A. Kentucky ALLTEL used a Microsoft Excel program to identify feeder cable in each exchange based on size and route. The program then replaced all copper feeder cable on each route with fiber. For larger exchanges, cables in excess of [redacted] pairs were considered "feeder." For smaller exchanges feeder cable was defined as having greater than [redacted] pairs. Exchanges serving over [redacted] access lines were designated as "large." The replacement fiber size is 72 fibers in large exchanges and 48 fibers in small exchanges. As described in Mr. Skudin's testimony, placing fiber in place of copper feeder is more efficient due to maintenance cost savings.

Q. Did Kentucky ALLTEL reuse the replaced copper feeder cable in the forward-looking network?

A. Yes. As described in Mr. Skudin's testimony, 90% of the replaced copper cable was used as distribution cable from the DLC to the customer premise. Generally, the existing copper cable was located where distribution cable would be installed to connect customers to the DLC. Importantly, the replaced cable did not represent redundant facility because its use eliminated the need to install additional cable. Kentucky ALLTEL's cost study simply assumed that placement of the replaced cable was in the same location where new cable otherwise would have been required.

Q. How did Kentucky ALLTEL determine the costs for cable and cable structure materials that were utilized in the forward-looking network?

A. Kentucky ALLTEL used its Work Order Management System ("WOMS") pricing tool to cost out the forward-looking network. As described by Mr. Skudin, WOMS is identical to the system ALLTEL engineers use to price out jobs and develop budgets for capital additions. The WOMS program priced out major components of the forward-looking network using current prices, which included discounts available to Kentucky ALLTEL. The price book included associated equipment that typically would be installed for each 1000-foot segment of cable (*e.g.*, poles and anchors for aerial cable, conduit duct for underground cable, pedestals for buried cable). WOMS also provided Kentucky ALLTEL with installation and removal hours for each cable segment. Results were printed out on the Budline report, which was provided to Commission Staff, and were summarized for input to the model's Import Data Spreadsheet.

<u>Interexchange Material Costs</u>

Q. What is included in interexchange material costs?

A. Interexchange ("IX") material costs include interexchange cable facilities and termination of electronics associated with the corresponding interexchange loops.

Q. How did Kentucky ALLTEL develop transport material cost inputs?

A. Kentucky ALLTEL identified IX routes by reviewing CAD/E records and then entering that information into an IX database by location, cable type and length. Existing copper portions of the IX routes were converted to 16-fiber cable. Kentucky ALLTEL multiplied forward-looking cable quantities by vendor prices listed in the WOMS Price Book to

arrive at fiber cable material costs. Finally, Kentucky ALLTEL entered the IX material costs for the cable used in providing interexchange transport along with the facility mileage into the Import Data Spreadsheet of the model.

Q. What other inputs did Kentucky ALLTEL develop through the IX investment process?

A. Through the IX investment process, Kentucky ALLTEL also developed inputs for transport and loop termination. Specifically, Kentucky ALLTEL downloaded current circuit and optic service facilities information from its Access Services And Provisioning System ("ASAP") records. Access line information was downloaded from MIROR, an ALLTEL system that manages numbering and line card requirements. As mentioned previously, Kentucky ALLTEL entered access line and circuit information from ALLTEL engineering records into the IX database. Kentucky ALLTEL then input host/remote links that were identified in the switching investment process. After summarizing and processing this information, Kentucky ALLTEL determined the required number of forward-looking local and IX fiber termination facilities. Resulting material costs for transport and local loop termination equipment were separately entered into the model's Import Data Spreadsheet.

DLC Material Costs

Q. How did Kentucky ALLTEL determine the number of DLCs?

A. Kentucky ALLTEL based the number of DLCs on the overall length of a feeder route. Fiber feeder cables were grouped together by major lead and then totaled. Kentucky ALLTEL considered that the overall length of a route would be used to determine the

necessity and placement of DLCs and that DLCs would be placed such that no copper distribution segment was longer than 9,000 feet. Kentucky ALLTEL then divided the total fiber cable lengths, including taps, along each main route by 18,000 feet to determine the number of DLCs required. (Kentucky ALLTEL rounded up to one additional DLC any fractional amount greater than one half (9,000 feet).)

Q. Given the quantity of DLCs required, how did Kentucky ALLTEL use the DLC process to develop the DLC material cost input to the cost study?

A. Kentucky ALLTEL used the Calix Budgetary Tool Version 1.5a (a proprietary product of Kentucky ALLTEL's DLC vendor, Calix Corporation) to calculate the material cost of the required DLCs and linecards. Calculations were based on the number of DLCs per exchange as determined above. Kentucky ALLTEL determined an average size by assuming that 40% of the access lines in an exchange would be served out of DLCs and dividing the access line total for the exchange by the number of DLCs required for that exchange. DLCs were assumed to be equipped with enough line cards to handle the forecasted five-year demand. The process assumed that 15% of the line cards were ADSL-capable combination cards. The CALIX pricing tool used current pricing at Kentucky ALLTEL-specific discounts to price out the required equipment. Finally, results were entered onto the model's Import Data Spreadsheet.

<u>Switching Material Costs</u>

Q. How did Kentucky ALLTEL use the switch investment process to develop inputs to the model?

A. The switching cost process was used to develop forward-looking TELRIC costs and estimated the switching material by utilizing current switching center locations, digital switching technology and vendor pricing that reflected Kentucky ALLTEL-specific discounts. The switch type at each existing wire center was determined, and an equivalent replacement switch was selected. Switches were sized to handle demand over the five-year forecast period. Switches were configured in accordance with specifications for base module sizing, power and common equipment, backup power, main distribution frame (MDF) and protectors, trunks and host/remote links, line card equipment, software, and test equipment. The Switching Cost Process used discounted switch vendor prices to develop material costs for each switch and associated equipment. Results were entered onto the model's Import Data Worksheet under the Serving Area Interface Equipment, Pair Gain Equipment, portion of Loop Port, End Office Switching, SS7 Signaling Switching, and Tandem Switching columns.

Material Costs – Engineering, Freight and Installation

Q. What is the purpose of the Engineering, Freight and Installation ("EF& I") inputs?

A. The purpose of EF&I factors was to develop the labor and other overheads required to design and install/construct the forward-looking network materials. These are applied as a ratio to the investment materials, including sales tax.

Q. What EF&I rates were used for cable facilities?

A. EF&I for distribution and feeder cable facilities is [redacted] based on an ALLTEL standard previously developed for TELRIC studies. This assumption is very low since engineering

analysis reveals that a rate exceeding [redacted] is more appropriate. However, EF&I for drop wire is higher because installation is more labor intensive, especially buried drop wire. Rates of [redacted] for aerial drop wire and [redacted] for buried drop wire were developed per labor hours produced by the WOMS pricing program.

Q. What EF&I rates are used for switching and circuit equipment?

A. An EFI of [redacted] is used for switching and [redacted] for circuit equipment. These rates are developed based on analysis of property records for ALLTEL wireline operations.

Financial Inputs

Q. What depreciation rates are used in the model?

A. As explained in Mr. Blessing's testimony, Kentucky ALLTEL adjusted its depreciation rate inputs to reflect the economic lives from the FCC's approved ranges. Kentucky ALLTEL selected lives at the low end of the approved range for each plant category. Depreciation expense is calculated using the straight-line depreciation method.

Q. How are annual carrying charge amounts developed in the model?

A. Carrying charge factors were based on historical expense relationships. The Kentucky ALLTEL Part 32 regulated account balances for the year ending December 31, 2003 were entered onto the worksheet labeled "Accounts." Regulated balances were determined in accordance with the ALLTEL Cost Allocation Manual ("CAM") which governs regulated and deregulated cost accounting. Individual annual carrying charge factors are developed from these balances in the model's Cost Factors worksheet.

Q. Explain the common cost factor and how it is developed.

A. The common cost factor is the ratio of the sum of non-retail common expenses to the net revenue requirement (total revenue requirement minus the sum of wholesale common costs plus retail costs). The factor was developed based on the Part 32 account financial information contained on the model's Accounts worksheet and the General Support Facilities and Retail ratios found on the model's Cost Factors worksheet. Common costs include wholesale marketing and customer service expenses, general and administrative expense (excluding retail portion), and general support facilities (excluding retail portion).

Q. What ratio of retail to total expenses is used to develop the common cost factor?

A. The common cost factor is [redacted] and was based on the assumption that [redacted] of the expense contained in the Product Management, Sales, Advertising, and Customer Services is related to retail. The common cost factor further assumes that [redacted] of the Call Completion and Number Services expenses are retail. These ratios were based on Kentucky ALLTEL's avoided cost methodology.

Demand

Q. What processes are used to develop the model's minutes of use ("MOU") demand inputs?

A. Current MOU data is extracted from ALLTEL's Carrier Access Billing System ("CABS"). Local minutes are obtained from the latest available data. The minutes are summarized by exchange in a work file and entered in the model on Import Data Worksheet in columns for Common Toll Minutes, Dedicated Toll Minutes, EAS Minutes,

Local Minutes, and Tandem Minutes. Within the model, these MOU totals are adjusted by the five-year forecast assumptions developed by ALLTEL planning engineers.

Q. What processes are used to develop the model's MOU demand inputs?

A. Current line demand is developed from data downloaded from the ASAP and MIROR systems. All loop data other than switched loops are obtained from ALLTEL's ASAP. The data are downloaded on an exchange basis for channel usage, facility counts and high capacity circuits. (*See*, Tabs AK, AL, and AM in TELRIC Study Results.) These numbers are then used to "rebuild" a trunking system that is the most efficient based on each exchange's circuit counts. IX circuits are combined into more efficient DS1 and DS3 level circuits. Two-wire switched loops are determined by subtracting all private line and 4-wire switched loops from the access line total derived from the MIROR system. The re-built loop quantities are summarized on the Electronic Data report. (*See*, Tab AJ in TELRIC Study Results.) This summary includes both local and IX loops. These data are entered into the model on the Import Data worksheet in Local Loop and Fiber Loop Facilities column by type of facility or loop.

Q. What is the source of the five-year forecast inputs?

A. The five-year line and trunk forecasts are developed based on forecasts prepared by ALLTEL's network planning engineers. Five-year MOU growth rates are developed from line and trunk forecasts developed in the switching process. These growth rates are applied to loops and minutes to determine forward-looking demand amounts and are calculated on the Demand Worksheet in the model.

Non-Recurring Charges

Q. Explain the source and uses for labor rates shown on lines 75 to 104 of worksheet "Cost Factors" in Kentucky ALLTEL's model.

A. The labor rates shown in the Current Factors column reflect average Kentucky ALLTEL labor rates by job function. These rates are fully loaded, including direct labor, benefits and taxes, vehicles and tools, supervision, and paid time not worked. Source is a study conducted using May and June 2003 labor data. Study was updated in October 2003 to reflect changes in rates due to the new union labor contract for Kentucky ALLTEL. The current amount was increased by a forward-looking adjustment of [redacted] to reflect projected increases through December 31, 2004. Labor rates are used to develop NRCs in the model.

Q. Are there any other inputs to the model's NRC rates?

A. Yes, the times required for service order processing, installation work, removal work, and conditioning activities are entered into the model by job function on worksheets "NRC Install," "NRC Disconnect," and "Conditioning Costs." Times are developed through discussion with various ALLTEL operating groups responsible for performance of such tasks.

Q. Please provide a recap of your testimony.

A. Kentucky ALLTEL's development of material costs, financial, demand, and labor cost inputs contained in Kentucky ALLTEL's cost study are TELRIC-compliant and the most appropriate for Kentucky ALLTEL to use in this cost study. Existing ALLTEL

engineering systems and planning tools were used to create and process data in a manner consistent with Kentucky ALLTEL's own budgeting processes. Raw data from the existing network design was then transformed into a forward-looking network design and current material cost values.

Q. Does this complete your testimony?

A. Yes, at this time.