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September 20, 2004

RECEIVED

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

PUBLIC SERVICE COMMISSION

RE: Inquiry into the Development of Deaveraged Rates for Unbundled Network Elements; Administrative Case No. 382

Dear Ms. O'Donnell:

Enclosed for filing in the above-referenced matter is an original and eleven (11) copies of Kentucky ALLTEL's Responses to Nuvox's Additional Data Requests. Please file-stamp the extra copy and return it to me in the self-addressed, prestamped envelope I have enclosed for your convenience.

Thank you for your cooperation in this matter. Please do not hesitate to contact me with any questions you may have.

Sincerely,

WYATT, TARRANT & COMBS, LLP

Molle M. Holday

Noelle M. Holladay

Enclosures

cc:

Douglas Brent Jonathon Amlung Kimberly Bennett 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	)	<b>CASE NO. 382</b>
UNBUNDLED NETWORK ELEMENTS	)	

# KENTUCKY ALLTEL'S RESPONSES TO NUVOX'S ADDITIONAL DATA REQUESTS

On Thursday, August 26, 2004, Nuvox filed with the Commission a motion for permission to submit additional data requests in this matter. In the weeks prior to filing its motion, Nuvox had also informally submitted additional data requests directly to Kentucky ALLTEL to which Kentucky ALLTEL had responded. The motion comprises Nuvox's third set of data requests in this matter. On Tuesday, August 31, 2004, prior to Kentucky ALLTEL having an opportunity to respond to Nuvox's motion, the Commission entered an Order granting Nuvox's request. Kentucky ALLTEL files these Responses to Nuvox's additional data requests and reiterates that its filings in this proceeding with respect to costs and rates for unbundled local switching and high capacity loops are provided under protest and without waiving Kentucky ALLTEL's lawful rights and objections.

QUESTION NO. 14: Regarding Exhibit A (UNE Price list) to ALLTEL's TELRIC study, file KAUNEw1.xls, sheet "Rate Sheet:" please explain the rationale for proposing monthly recurring (rather than non-recurring) conditioning charges.

**RESPONSE**: The recurring conditioning charge is on an as needed basis and would not apply to every loop. This element is intended to recover the cost of additional repeater

equipment when it is required to provide the requested service. Repeater equipment is required based on the distance from the nearest wire center or Digital Loop Carrier (DLC), depending on the type of loop and facilities involved. The charge would be applied only after loop evaluation is performed and it is determined that the additional repeater equipment is required. An additional monthly recurring charge is required since such repeater equipment is not included in the forward-looking network. Loop hardware costs are usually recovered through a monthly recurring charge rather than through a non-recurring charge element.

**QUESTION NO. 15**: With reference to ALLTEL's June 11, 2004 response to Nuvox Data Request Number 3 (application of UNE rates to EELs): Please specify the number of Transport Termination charges that would apply to an EEL.

**RESPONSE**: The number of transport termination charges is two per EEL.

QUESTION NO. 16: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, sheet "Accounts:" For each of the account numbers in column B, please provide a narrative description of this account. Please provide this information electronically in a Microsoft Excel or Word format.

**RESPONSE**: The account numbers contained in sheet "Accounts", Column B, are based on FCC Part 32 definitions. Refer to Title 47 CFR, Part 32 for the narrative description of each account. Account numbers on the sheet have been expanded to seven digits to fit the Kentucky ALLTEL accounting system, therefore trailing zeroes should be ignored.

QUESTION NO. 17: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, sheet "Input Description." Please provide in electronic format that allows for data manipulation (not .PDF) input source files listed in column F, specifically: (a) Exchange.mdb; (b) Labor File; (c) Rate tbl.xls.

RESPONSE: Data used in the study is copied directly from the source files into the model as follows: (a) all data on the "Import Data" worksheet comes from one table in the Exchange.mdb database; (b) current labor rates on the "Cost Data" worksheet come from values entered in the Labor File; and (c) current rates of return, depreciation lives, and tax rates on the "Cost Data" worksheet come from values entered in the Rate\_tbl.xls file. All data contained in the "Import Data" and "Cost Data" worksheets can be adjusted by Nuvox directly on these sheets.

QUESTION NO. 18: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Cost Factors", please provide a complete description along with all underlying calculations and source material used to develop the values of all factors, rates, and percentages listed in Column (e), labeled "Current Factors". If any of this information has previously been provided in the TELRIC study backup documents, please indicate where the information can be found.

**RESPONSE**: The "Cost Factors" worksheet has been provided and attached hereto as file "KY ALLTEL\_Cost Factors Sources.xls" with Source and Calculation columns added. These columns show sources and underlying calculations for all factors, rates, and percentages listed in Column (e), labeled "Current Factors".

QUESTION NO. 19: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Material Factors", please provide a complete description along with all underlying calculations and source material used to develop the values of the data in column (b) "Material Costs", for each of the following:

Loop Aerial Cable (Cell B8)

Loop U/G Cable (Cell B9)

Loop Buried Cable (Cell B10)

Loop Aerial Drop (Cell B11)

Loop Buried Drop (Cell B12)

Loop Copper Equipment (Cell B13)

Loop Fiber Cable (Cell B14)

Loop Fiber Equipment (Cell B15)

PRI-ISDN / DS-1 2 wire (Cell B70)

PRI-ISDN / DS-1 4 wire (Cell B71)

DS0 Local Loops Equipment Factor (Cell B77)

DS1 Local Loops Equipment Factor (Cell B78)

If any of this information has previously been provided in the TELRIC study backup documents, please indicate where the information can be found.

**RESPONSE**: Following is a description for each of the listed items:

"Material Factors" Row	Material Cost Source and Description
Loop Aerial Cable (Cell B8)	Total local loop aerial cable materials
	from Import Data Worksheet, Row 7
Loop U/G Cable (Cell B9)	Total local loop underground cable

	materials from Import Data Worksheet,	
	Row 7	
Loop Buried Cable (Cell B10)	Total local loop buried cable materials	
	from Import Data Worksheet, Row 7	
Loop Aerial Drop (Cell B11)	Total local loop aerial drop materials from	
	Import Data Worksheet, Row 7	
Loop Buried Drop (Cell B12)	Total local loop buried drop materials	
	from Import Data Worksheet, Row 7	
Loop Copper Equipment (Cell	Total digital loop concentrator and line	
B13)	termination materials from Import Data	
	Worksheet, Row 7	
Loop Fiber Cable (Cell B14)	Total local loop fiber cable materials from	
	Import Data Worksheet, Row 7	
Loop Fiber Equipment (Cell B15)	Total local loop fiber termination	
	materials from Import Data Worksheet,	
	Row 7	
PRI-ISDN / DS-1 2 wire (Cell	Materials required for conditioning,	
B70)	consisting of repeater equipment costing	
	\$1,357	
PRI-ISDN / DS-1 4 wire (Cell	Materials required for conditioning,	
B71)	consisting of repeater equipment costing	
	\$1,357.	
DS0 Local Loops Equipment	Average amount of equipment required to	

Factor (Cell B77)	terminate one DS0 circuit.	
DS1 Local Loops Equipment	Average amount of equipment required to	
Factor (Cell B78)	terminate one DS1 circuit.	

There are no underlying calculations behind any of these numbers.

QUESTION NO. 20: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Import Data", for the data in columns D-I (Loop Aerial Cable, Loop U/G Cable, Loop Buried Cable, Loop Aerial Drop, Loop Buried Drop, Loop Fiber Cable), the values can be traced to the Woms Summary report in the TELRIC study backup documents, tab AN.

- a) Please provide in electronic format the data that is the source of the Woms summary report.
- b) Please provide all underlying calculations and source material used to develop the values of the data listed in the Woms summary report.

#### **RESPONSE**:

- a) Data requested was provided in the TELRIC study backup documents, Tab BN,

  Budline Report. An electronic copy of the Budline Report (Tab BN) is being

  provided in a Microsoft Excel file titled "KY ALLTEL\_Woms Summary

  Report.xls", under worksheet Budline Report.
- b) Calculations used to summarize the Budline report information for the Woms

  Summary Report are explained and re-created in worksheet "Woms

  Summary" contained in file "KY ALLTEL\_Woms Summary Report.xls".

The Material Cost values (Column F) in the Budline Report are calculated by multiplying the quantities in Column D by the dollar amounts in the WOMS Inplace Cost Book previously provided in the support documentation under Tab BL.

**QUESTION NO. 21**: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Import Data", for the data in column J (Loop Fiber Equipment), the source of this information is listed in the Input description worksheet as a Woms Electronic Data Report.

- a) Please provide in electronic format the data that is the source of the Woms Electronic Data Report.
- b) Please provide all underlying calculations and source material used to develop the values of the data listed in the Woms Electronic Data Report.

## **RESPONSE**:

a) The "Woms Electronic Data Report" was provided in the TELRIC study backup documents under Tab AJ, "Electronic Data". An electronic copy of the entire "Woms Electronic Data Report" is not available, because the report is generated by extracting information from several tables within a Microsoft Access database. The portion of the report for "Loop Fiber Equipment" is provided in MS Excel file "KY ALLTEL\_Fiber Equipment Data.xls", worksheet "Loop Fiber Equip \$".

b) The underlying calculations and source material used to develop the values for "Loop Fiber Equipment" are contained in file "KY ALLTEL\_Fiber Equipment Data.xls".

QUESTION NO. 22: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Material Factors" please provide a complete description along with all underlying calculations and source material used to develop the values listed in Column (c), "Quantity".

RESPONSE: These are allocation numbers to reflect cost relationships between equipment for different types of loops. The quantities on this schedule flow into lines 11 through 18 on worksheet "Loop Equipment Demand". From there, they are used to allocate Loop Copper Equipment and Loop Fiber equipment on a weighted basis. Quantities are based on average relationship of material cost for each type of circuit to that required for termination of a 2-wire switched loop. Column (b), "Amount", contains the average material costs upon which numbers are based. Each number in Column (c) is calculated by dividing the dollar amount in Column (b) for each type of loop by the dollar amount for the 2-wire switched loop in Row 72, Column (b).

**QUESTION NO. 23**: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Conditioning Cost", for the data in column M (PRI-ISDN / DS-1 4 Wire):

a) Please provide a complete description along with all underlying calculations and source material used to develop the estimates for hours associated with each activity and the cost per hour for these activities.

- b) Were the estimated hours developed through time and motion studies? If yes, please provide the related time and motion study.
- c) Were the estimated hours developed by Subject Matter experts (SMEs)? If yes, please provide all questionnaires, responses and related documentation involved in these estimates along with a detailed record of the job positions and responsibilities of the personnel who provided these estimates.

### **RESPONSE**:

- a) Hourly costs were developed from a labor study based on actual labor costs during May, June, and October 2003. Labor rates were developed for each job classification.
- b) Time and motion studies were not performed.
- c) Estimated hours were developed through discussions with ALLTEL engineering subject matter experts.

**QUESTION NO. 24**: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Import Data" please explain why the "Digital Line Concentrator" (DLC) equipment in column K is categorized as loop copper equipment, when the information in the TELRIC study backup documents in tab BB indicates the DLC equipment is fiber fed?

**RESPONSE**: While the Digital Line Concentrator (DLC) equipment is fiber fed, the loop facilities from the DLC to the customer premises are primarily copper in the forward-looking network. Thus, the cost of the DLC is being added to the average cost of the copper loop facilities used for distribution to the customer. The impact is that the cost

is distributed to all local loops in relationship to the forward-looking loop configuration within each exchange (excluding DS3 and larger loops).

QUESTION NO. 25: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls, in the worksheet "Input Description", the source for the Digital Line Concentrator equipment on line 13 is listed as the Digital Line Concentrator Model. There are two reports associated with this model, "Nebraska ALLTEL - 150 DLC" and "Calix Budgetary Pricing Tool (DLC)". The "Calix Budgetary Pricing Tool (DLC)" can be found in the TELRIC study backup documentation in tab BB. Please provide the "Nebraska ALLTEL - 150 DLC" report data and any other information not previously provided that was relied on to develop the costs in the DLC model.

**RESPONSE**: Source for second report should read "Kentucky ALLTEL – 219 DLC", instead of "Nebraska ALLTEL – 150 DLC". The "Kentucky ALLTEL – 219 DLC" report was previously provided in the TELRIC study backup documentation as Tab BA.

**QUESTION NO. 26**: Regarding the "Calix Budgetary Pricing Tool (DLC)" information in tab BB of ALLTEL's TELRIC study backup documentation, for what time period are (were) the contract prices for DLC equipment in backup tab BB valid?

**RESPONSE**: The contract prices for DLC equipment shown in Tab BB were in effect through December 31, 2003.

**QUESTION NO. 27**: Regarding the "Calix Budgetary Pricing Tool (DLC)" information in tab BB of ALLTEL's TELRIC study backup documentation:

- a) When ALLTEL currently places DLC equipment in its network, is this the same type of equipment listed in tab BB? Please provide an explanation of exceptions.
- b) Please provide a copy of the contract between ALLTEL and its equipment vendor for the DLC equipment that ALLTEL intends to place in service on a going forward basis. This contract must include all pricing schedules by year and any terms that cause adjustments to prices within the contract.

#### **RESPONSE**:

- a) Yes, Kentucky ALLTEL currently uses Calix as its primary vendor for DLC equipment. As an exception, Kentucky ALLTEL may also place Advanced Fibre Communications (AFC) equipment where 1) there are already AFC concentrators nearby, 2) the size is generally 240 lines or less, and 3) low growth is expected in the near future (in that area).
- b) Kentucky ALLTEL is determining conditions under which Calix will allow disclosure of the contract and its terms.

**QUESTION NO. 28**: Regarding the "Calix Budgetary Pricing Tool (DLC)" information in tab BB of ALLTEL's TELRIC study backup documentation:

- a) Please confirm or deny that the prices for DLC equipment in backup tab BB include investment associated with ADSL equipment.
- b) If confirmed, please indicate whether this ADSL equipment investment is necessary to support DS1 loops provided via the DLC equipment?

#### **RESPONSE**:

- a) Kentucky ALLTEL confirms that the prices for DLC equipment in backup Tab

  BB include Combo line cards which support ADSL service.
- b) The ADSL-related investment is not required to support DS1 loops. See Response to Question No. 29(c) for additional equipment required to support DS1 loops provided via DLC equipment.

**QUESTION NO. 29**: Regarding the "Calix Budgetary Pricing Tool (DLC)" information in tab BB of ALLTEL's TELRIC study backup documentation:

- a) Please confirm or deny that this equipment is configured to support DS1 loops.
- b) If this equipment is configured to support DS1 loops, please provide a full explanation of other equipment components currently in the DLC model that are not necessary to support DS1 loops.
- c) If the equipment in tab BB is not currently configured to provide DS1 loops, please provide revised DLC equipment information along with a detailed description for this DLC equipment that is configured to support DS1 loops.

#### **RESPONSE**:

- a) The DLC equipment in backup Tab BB is <u>not</u> configured to support DS1 loops.
- b) See Response to Question No. 29(a).
- c) A T1-6 card would be required to support DS1 loops at the DLC. This card provides six DS1 ports at a cost of \$1,820 per card. The cost study should be revised to add 1,890 of these cards, or \$3,439,800 to the DLC material

investment. This would provide the equipment required to provide DS1 service at every DLC based on the demand forecasts.

**QUESTION NO. 30**: Regarding the "Calix Budgetary Pricing Tool (DLC)" information in tab BB of ALLTEL's TELRIC study backup documentation:

- a) What percentage of each DLC component is used exclusively to support DS0 loops?
- b) What percentage of each DLC component is used exclusively to support ADSL loops?
- c) What percentage of each DLC component is used exclusively to support DS1 loops?
- d) Which components can be shared by different services and if so what percentage is associated with each service (e.g., DS0, DS1, ADSL)?

# **RESPONSE**:

a) Percentage of components used to exclusively support DS0 and switched loops are:

Remote POTS, 24 Line Cards	<del></del>	100%
Combo ADSL and POTS Cards	-	50%
RT Common Equipment	-	0%
COT Equipment		0%

b) Percentage of components used to exclusively support ADSL loops are:

Remote POTS, 24 Line Cards - 0%

Combo ADSL and POTS Cards - 50%

- c) See answer to Question 29(a).
- d) The COT and RT Common equipment are shared. Under the current configuration, approximately 92% would be allocated to DS0/POTS loops and 8% to ADSL equipped loops. If the T1-6 card was added to serve DS1 loops, then percentages would change to 83% for DS0/POTS loops, 7% for ADSL equipped loops, and 10% for DS1 loops.

**QUESTION NO. 31**: In ALLTEL's existing Kentucky network, what percentage of the existing DS1 loops are served via fiber based DLC technology versus a copper based DS1 technology?

**RESPONSE**: Approximately 16% of existing DS1 loops are served via fiber-based DLC technology.

QUESTION NO. 32: For the DS1 loops that ALLTEL expects will be placed in service within the near future (2-3 years), what percentage of the DS1 loops does ALLTEL expect will be served via fiber based DLC technology versus a copper based DS1 technology?

**RESPONSE**: Kentucky ALLTEL estimates that the percentage of future DS1 loops served via fiber-based DLC technology will increase slightly within the near future.

**QUESTION NO. 33**: Regarding ALLTEL's TELRIC study, file KAUNEw1.xls and associated backup documents:

- a) What percentage occurrence is assumed for DS1s served via fiber based DLC technology versus a copper based DS1 technology?
- b) Please provide all supporting documentation, analysis or validation for the percentage assumptions used in the study for copper and fiber based DS1 loops.

# **RESPONSE**:

- a) The study assumes that 40% of all loops will be served out of fiber-based DLCs.
- b) The study does not directly consider the difference between copper- and fiber-based DS1 loops.

**QUESTION NO. 34**: Regarding the percentage occurrence of DS1s served via fiber based DLC technology versus a copper based DS1 technology:

- a) For DS1 loops that may be placed into service in the near future (2-3 years), would the percentage of fiber and copper based DS1s vary by type of service provided (DS0, DS1)?
- b) For DS1's placed into service in the near future (2-3 years), would the percentages of fiber and copper based DS1s vary by wire center (caused by differences in density and size of the geographic area of the wire center)?
- c) Please provide the counts by wire center of existing DS1s served via fiber based DLC technology versus a copper based DS1 technology.

#### **RESPONSE:**

- a) No, the percentage would not vary by type of service provided.
- b) Yes, the availability of existing facilities would be a primary factor in determining whether DS1s are fiber- or copper-based. Fiber-fed DLCs are more prevalent in areas of higher density and higher growth.
- c) Such detail is not maintained in the Kentucky ALLTEL circuit record database.

QUESTION NO. 35: Regarding the percentage occurrence of DS1s served via fiber based DLC technology versus a copper based DS1 technology: How are copper facilities adjusted or allocated to compensate for the fact that the forward looking mix of fiber & copper DS1s is different than the existing mix? In other words, since the study is based on the existing network and percentage of copper facilities, this information needs to be adjusted to compensate for the forward-looking occurrence of copper DS1s. How are the costs of this total copper network adjusted downward to compensate for the fact that many future DS1 loops will use fiber based DLC technology?

RESPONSE: The feeder cable in the model is converted entirely to fiber. This reduces the total average amount of copper in the loop for each DS1 between the central office and the customer premises/location. Copper retained for distribution is reduced by 10% in the model. This replaces copper pairs used to serve the DLC and considers some loops will be served by the feeder fiber in the forward-looking network. This 10 % reduction is applied equally to all types of loops, resulting in lower overall costs. Model does not

differentiate between types of loops when converting from copper to fiber, so the exact amount of reduction by loop type is not available.

QUESTION NO. 36: Regarding the costs for DS1 loops in ALLTEL's cost study, for DS1 loops served via fiber based DLC technology and for DS1 loops served via copper DS1 technology, please provide schematics or equipment diagrams which indicate all necessary components involved with each technology, and indicate where in the cost study or backup documentation the costs for these components are found.

**RESPONSE**: See attached Excel file, "KYA\_DS1 Diagram.xls. A drawing for each configuration is included. Cross reference to the cost study and backup documentation is shown at the bottom of each drawing.

QUESTION NO. 37: Regarding existing DS1 loops in ALLTEL's network, for DS1 loops served via fiber based DLC technology and for DS1 loops served via copper DS1 technology, please provide schematics or equipment diagrams which indicate all necessary components involved with each technology.

**RESPONSE**: Refer to Response to Question No. 36. Drawings also reflect the equipment components for existing DS1 loops in Kentucky ALLTEL's network.

Dated: September 20, 2004.

Respectfully submitted,

KENTUCKY ALLTEL, INC.

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Noelle M. Holladay
Attorney for Kentucky ALLTEL, Inc.
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# **CERTIFICATE OF SERVICE**

I hereby certify that a notice with respect to the foregoing has been sent this 20th day of September, 2004 by first class mail, postage prepaid to the following:

Douglas F. Brent, Esq. Stoll, Keenon & Park, LLP 2650 Aegon Center 400 West Market Street Louisville, KY 40202

Jonathon N. Amlung, Esq. 1000 Republic Bank Building 429 W. Muhammad Ali Blvd. Louisville, KY 40202

Noelle M. Holladay

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