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ISSUES:	ACCESS RATES
WITNESS:	RANDY G. FARRAR
SPONSORING PARTY:	SPRINT
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CASE NO.:	TR-2001-65
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BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

In the Matter of the Access Rates Charged by Competitive Local Exchange Telecommunications Companies in the State of Missouri	))))	Case No. TR-2001-65

DIRECT TESTIMONY

OF

RANDY G. FARRAR

ON BEHALF OF

SPRINT COMMUNICATIONS COMPANY, L.P.

July 1, 2002

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I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Randy G. Farrar. I am presently employed as Senior Manager - Network Costs for Sprint/United Management Company. My business address is 6450 Sprint Parkway, Overland Park, Kansas, 66251.

Q. What is your educational background?

A. I received a Bachelor of Arts degree from The Ohio State University, Columbus, Ohio, in June 1976 with a major in history. Simultaneously, I completed a major program in economics. Subsequently, I received a Master of Business Administration degree, with an emphasis on market research, in March 1978, also from The Ohio State University.

Q. What is your work experience?

A. From 1978 to 1983 I was employed by the Public Utilities Commission of Ohio. My positions were Financial Analyst (1978 - 1980) and Senior Financial Analyst (1980-1983). My duties included the preparation of Staff Reports of Investigation concerning rate of return and cost of capital. I also designed rate structures, evaluated construction works in progress, measured productivity, evaluated treatment of canceled plant, and performed financial analyses, for electric, gas, telephone, and water utilities. I presented written and oral testimony on behalf of the Commission Staff in over twenty rate cases.

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I have worked for Sprint Corporation or one of its predecessor companies since 1983. From 1983 to 1986 I was Manager - Rate of Return. I presented written and/or oral testimony before state public utilities commissions in Iowa, Nebraska, South Carolina, and Oregon.

From 1986 to 1987 I was Manager - Local Exchange Pricing. I investigated alternate forms of pricing and rate design, including usage sensitive rates, extended area service alternatives, intraLATA toll pricing, and lifeline rates.

Since 1987, I have held various positions dealing with telecommunications cost issues. From 1987 to 1992 I was Manager - Local Exchange Costing. In 1992 I was promoted to Manager - Network Costing and Pricing. I performed financial analyses for various business cases, which analyze the profitability of entering new markets and expanding existing markets, including Custom Calling, Centrex, CLASS and Advanced Intelligent Network features, CPE products, Public Telephone and COCOT, and intraLATA toll. I was a member of the United States Telephone Association's New Services and Technologies Issues Subcommittee from 1989 to 1992, and the Economic Analysis Training Work Group from 1994 to 1995.

In 1997 I was promoted to my present position. I am an instructor for numerous training sessions designed to support corporate policy on pricing and costing

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theory, and to educate and support the use of various costing models. I am responsible for the development and support of cost models concerning unbundled network elements and wholesale discounts. Since 1995, I have presented written and/or oral testimony before the Illinois Commerce Commission, the Pennsylvania Public Utility Commission, the New Jersey Board of Public Utilities, the Florida Public Service Commission, the North Carolina Utilities Commission, the Nevada Public Service Commission, the Public Utility Commission of Texas, the Georgia Public Service Commission, the Arizona Corporation Commission, the New York Public Service Commission, the Corporation Commission of Oklahoma, and the Federal Communications Commission on the avoided costs of resold services, the cost of unbundled network elements, reciprocal compensation, access reform, and universal service issues.

Q. Why are you testifying in this case?

A. I am testifying in this case because the Commission Staff is sponsoring evidence relating to the cost of access in Missouri that includes an estimate of the cost of access provided by Sprint Missouri Inc. In its Order Establishing Case, the Commission directed the Staff to gather, compile and analyze information and to present its results in order to develop a record on the actual cost of exchange access services.[1] The Order Establishing Case indicates that the purpose for gathering the information was to allow the Commission to adopt a permanent solution to address the cap on CLEC's access rates that the Commission

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determined to be a barrier to market entry and anti-competitive.[2] In subsequent orders granting clarification, the Commission indicated that information should be gathered for all carriers certified to provide basic local service in Missouri, including both ILECs and CLECs.

Pursuant to the Commission's Order, Staff hired Ben Johnson and Associates (BJA) to assist in its analysis. Despite the Commission's direction to include all certified local telecommunications companies, it appears that the results of BJA's analysis have been focused on the cost of access offered by the large ILECs in Missouri, including Sprint Missouri Inc. In conducting his analysis on Sprint Missouri Inc, BJA opted to use Sprint's cost model to produce results for the switching and transport components of access. On June 1, 2002, Sprint received a preliminary copy of BJA's analysis of Sprint Missouri's cost of access. I have reviewed BJA results and concluded that BJA has modified the inputs into Sprint's cost model to the extent that the results do not accurately reflect Sprint Missouri Inc.'s cost of access. While I am unsure how the Commission will use the cost of access identified in this case, the discrepancy between Sprint's cost of access and BJA's results are so great that Sprint is compelled to sponsor a witness.

[1] Order Establishing Case, Case No, TR-2001-65, issued August 8, 2000
[2] Id.; See also Order Establishing Procedural Schedule, Clarifying Scope of This Case and Concerning Motion to Waive Service Requirement and Motion to Compel, March, 14, 2002. (An express purpose of this case is to gather the information necessary to replace the interim rate cap with a permanent solution).

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Q. What are the general areas where you disagree with BJA as BJA's work relates to Sprint Missouri Inc.'s cost of access?

A. In general, the BJA cost analysis for Sprint switched access cost contains the following flaws:

- End office switching costs are understated due to the exclusion of facilities which are variable in the long-run.
- Tandem switching costs are overstated due to the inclusion of costs associated with non-tandem switches.
- Transport costs are understated due to the exclusion of facilities which are variable in the long-run.
- Annual charge factors use overstated depreciation lives, understated cost of capital, and incorrect maintenance factors based on embedded expenses.
- Directly attributable shared expenses are improperly excluded.
- Common costs are not included.

Farrar HC Schedule 1-1 summarizes Sprint's suggested changes to the BJA TSLRIC Cost Study. Also, the attached Highly Confidential electronic file contains the BJA TSLRIC Cost Study with the necessary modifications to the inputs to produce a more accurate measurement of the cost of access for Sprint in Missouri.

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II. BJA COST ANALYSIS

Q. Please summarize the BJA Cost Analysis.

A. The BJA analysis includes four different methodologies which are claimed to represent "forward looking economic cost studies." They are:

- Stand Alone
- Average - Pro Rata
- Average - Weighted
- TSLRIC (Total Service Long-Run Incremental Cost)

The BJA TSLRIC Cost Study is derived from the same Sprint cost model used to produce Sprint's Missouri Access Cost Study filed on December 4, 2001 in Case No. TR-2002-251[3]. In that case, the Commission relied on Sprint's access cost study in approving Sprint's tariff containing Sprint's rate-reblancing pursuant to Section 392.245 RSMo. Sprint's cost of access study submitted in that case complied with the FCC's Forward-Looking Economic Cost standard as defined in the FCC Local Competition Order as well as the Missouri statutory requirements. (*See* Section 392.245.9 RSMo.) However, BJA has so significantly altered the Sprint cost model inputs that his results are **not** representative of Sprint's forward-looking economic cost of switched access and do not comply with the FCC's Forward-Looking Cost standard.

[3] *Tariffs of Sprint Missouri, Inc., d/b/a Sprint, designed to: reduce basic rates by the change in the CPI-TS; update its maximum allowable prices for nonbasic services and adjusting certain rates; and reduce certain switched access rates and rebalance to local rates*

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Q. What cost standard is relevant in this proceeding?

A. The FCC's Forward-Looking Economic Cost standard is the only appropriate standard to determine the cost of switched access. This Commission, as well as every other state commission I have appeared in front of, routinely applies the FCC's Forward Looking Cost standard in determining network-costing issues. In arbitrations the Commission has decided, it has consistently sought to set unbundled network elements consistent with the FCC's Total Element long Run Incremental Cost (TELRIC), a FCC Forward Looking Cost model..[4] Further, this Commission has applied TELRIC in non-arbitration costing proceedings.[5] Finally, the Commission has relied on Sprint's cost study that conformed with the FCC's Forward-Looking Economic Cost standard in determining the cost of access in Sprint's rate rebalancing case and on GTE's TSLRIC cost studies to identify GTE's cost of access in GTE's rate rebalancing case.[6] Therefore, there should not be any question that the FCC's Forward Looking Cost standard is appropriate for the Commission's determination in this case.

Among the cost methodologies proposed by BJA, the TSLRIC cost methodology is the only one that can, if modified, comply with the FCC's Forward Looking Cost standard. However, the manner in which BJA has performed its TSLRIC

[4] See *Re AT&T Communications of the Southwest, Inc.* Case No TO-2001-455 (Order dated June 7, 2001) (TELRIC applies to UNE rates).
[5] See *Re Southwestern Bell Telephone Company*, Case No. TT-2001-298, Order dated June 17, 2001 (requiring TELRIC complaint cost models for collocation
[6] *Tariffs of GTE Midwest Incorporated, d/b/a Verizon Midwest, to implement rate changes under the price cap regulatory framework,* TR-2002-250.

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cost study does not comply with this standard. This is not due to the use of Sprint's cost model but, instead, results from BJA's significant alteration of the inputs and assumptions. In this testimony, I will discuss the modifications necessary to bring BJA's TSLRIC cost study into compliance with the FCC's Forward Looking Cost standard.

Q. Are there any other reasons that this Commission should reject BJA's Stand Alone, Average-Pro Rata and Average Weighted cost methodologies?

A. Yes. It appears that the Missouri telecommunications law has directed the Commission to use a cost methodology that at a minimum considers long run incremental cost or "LRIC." The Missouri telecommunications law directs the Commission to apply LRIC principles when it evaluates the cost of intrastate access for Price Cap companies in connection with rate re-balancing. See Section 392.245.9 RSMo. Unless the Commission determines that the cost of intrastate access is above LRIC, it cannot approve the lowering of access rates with a corresponding revenue neutral increase in local rates. Id. Further, as mentioned above, the Commission relied on Sprint's cost study that conformed to the FCC's Forward-Looking Economic Cost standard in approving Sprint's rate rebalancing. The Commission also relied on GTE's TSLRIC cost studies in approving GTE's rate rebalancing.[7] Finally, the Missouri telecommunications law specifically requires that the Commission ensure that all new services are priced above LRIC. See Section 392 200(4)(2)©.

[7] *Id.*

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Among BJA's proposed cost methodologies, only the TSLRIC cost methodology considers long run incremental cost. Therefore, it is the only one relevant to this proceeding.

Q. Does the BJA TSLRIC study include a cost allocation of the local loop?

A. No. A fundamental principle of long-run incremental cost is that it only captures costs that are brought into existence as a direct result of the increment of output, in this case, access. By excluding any local loop allocation in its TSLRIC cost model, even BJA acknowledges that it would be improper to allocate a portion of the non-traffic-sensitive local loop to the long-run incremental cost of switched access. Therefore, loop cost studies are **not** relevant to the Commission's determinations in this case.

III. FORWARD-LOOKING ECONOMIC COST METHODOLOGY

Q. Please explain what is meant by Total Service Long-Run Incremental Cost (TSLRIC).

A. Paragraph 677 of the FCC Local Competition Order discusses the term TSLRIC. It states,

> The term "long run," in the context of "long run incremental cost," refers to a period long enough so that all of a firm's costs become variable or avoidable. The term "total service," in the context of TSLRIC, indicates that the relevant increment is the entire quantity of the service that a firm produces, rather than just a marginal increment over and above a given level of production. Depending on what services are the subject of a study, TSLRIC may be for a single service or a class of similar services. TSLRIC includes the incremental costs of dedicated facilities and operations that are used by only the service

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in question. TSLRIC also includes the incremental costs of shared facilities and operations that are used by that service as well as other services.

Using the FCC definition, TSLRIC consists of four main concepts.

- Long-run is a period of time long enough that all of a firm's costs become variable,
- The relevant amount of demand is the entire quantity of the service produced,
- The entire cost of all dedicated facilities and operations is included, and
- A portion of the cost of all shared facilities and operations is included.

Q. How does the FCC define Forward-Looking Economic Cost?

A. The FCC Local Competition Order's Final Rules (Appendix B), § 51.505(a), defines the Forward-Looking Economic Cost standard as TELRIC plus common costs.

> *In general*. The forward-looking economic cost of an element equals the sum of:
> (1) the total element long-run incremental cost of the element ... ; and
> (2) a reasonable allocation of forward-looking common costs ... .

Q. Are shared investments such as conduit and poles included in the Forward-Looking Economic Cost standard?

A. Yes. Paragraph 682 of the Local Competition Order makes it clear that conduit and poles are properly included.

> Directly attributable forward-looking costs include the incremental costs of facilities and operations that are dedicated to the element. Such costs typically include the investment costs and expenses related to primary plant used to provide that element. Directly attributable forward-looking costs also

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include the incremental costs of shared facilities and operations. Those costs shall be attributed to specific elements to the greatest extent possible. For example, the costs of conduits shared by both transport and local loops, and the costs of central office facilities shared by both local switching and tandem switching, shall be attributed to specific elements in reasonable proportions.

Q. How is the cost of a shared investment, such as a central office switch, variable in the long-run?

A. Certain investments are shared by multiple services. For example, switching components are shared by both local and switched access services.

Central office switching equipment is modular in nature, and purchased in blocks of capacity. For example, a modular component may be capable of providing a certain amount of traffic. At initial installation, there will be excess capacity. In the short-run, increases in demand will not require any additional investment. However, as traffic increases over time the capacity of the component will be exhausted. The capacity of the component will be expanded by the addition of another modular component.

Thus, an increase in either local usage or switched access usage will directly cause an increase in investment. Any investment which is exhaustible and expandable is variable in the long-run.

Q. Is the FCC definition of TSLRIC and Forward-Looking Economic Cost consistent with the definition of long-run incremental cost provided in the Missouri Telecommunications Act?

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A. Yes. First, the Commission is very familiar with the FCC's Forward Looking Cost standard as the Commission has repeatedly applied the TELRIC methodology. The TELRIC and TSLRIC methodologies are the same, except one considers total elements whereas the other considers total service. The Forward-Looking Economic Cost standard is defined as TELRIC plus a reasonable allocation of common costs.[8] The concept of long-run incremental cost in an integral component of the TELRIC standard and, therefore, the Forward-Looking Economic Cost standard.

IV. SPRINT MODIFICATIONS TO THE BJA TSLRIC COST STUDY

Q. The BJA TSLRIC Cost Study excludes the cost of the central office processor, fiber cable facilities, and certain fiber optic terminal costs from its TSLRIC cost study. Does this comply with the FCC's Forward-Looking Economic Cost standard?

A. No. Each of these items should be included in a forward-looking economic cost study. By definition, the term TSLRIC, as defined by the FCC, must reflect a time period long enough that all costs are variable. TSLRIC also includes a portion of shared facilities.[9] By excluding the cost of major network components, BJA has violated the Forward-Looking Economic Cost standard.

[8] FCC Local Competition Order, Final Rules, § 51.505(a).
[9] FCC Local Competition Order, Paragraph 677.

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In discussing why the FCC's standards require that these costs be included, first I will address the cost specific to switching and to transport separately. Then I address the annual charge factors that appear in both the switching and transport costs study components. Further, in my discussion below, I will also address areas where BJA has overstated or understated cost inputs. The reason I do this is because the intent of Sprint's proposed modifications is to produce a cost of access for Sprint that is compliant with the FCC Forward-Looking Economic Cost standard.

A. SWITCHING COSTS

1. Central Office Processor

Q. Is cost of the central office processor variable in the long-run?

A. Yes. The central office processor has a finite capacity. Therefore, the processor capacity can be exhausted, and the processor is expandable.

Over time, the central office processor capacity has significantly expanded. This is analogous to the processing capability of desk-top computers, which have migrated from the original 8088 processor, through the 286, 386, 486, Pentium, Pentium 2, and Pentium 3 processors, to the current Pentium 4 processor.

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The following table illustrates the call processing capabilities of the various generations of the Nortel central office processor.

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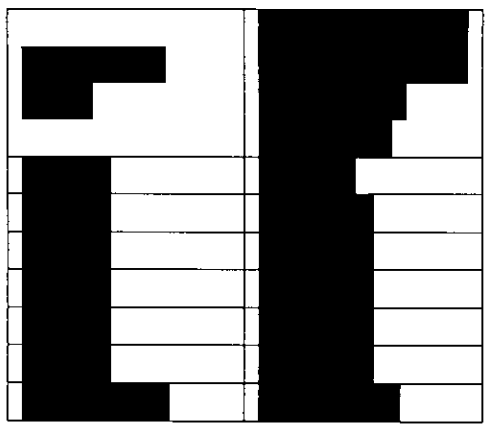

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Q. Why has processor capacity increased?

A. To handle the increased demand by all services which utilize the central processor. This includes switched access.

Q. The BJA TSLRIC Cost Study claims that the central processor is not an incremental cost to switched access. Is this true?

A. No. This is demonstrably not correct. Switched access accounts for approximately ***** BEGIN HC ***** [redacted] ***** END HC ***** of total traffic. Capacity for a central processor depends on the number of call attempts. Therefore, if switched access traffic did not exist, less processor capacity would be needed. As a result, the FCC's Forward0Looking Economic Cost standard requires that

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the central processor be included in a switched access cost study. Sprint correctly attributes the central office processor to the cost of switched access. The modification Sprint has made to BJA's cost study to capture cost for the central processor can be found at lines 2, and 7 – 10, page 2 of 3, of Farrar HC Schedule 1-1.

2. Baseload Switching Software

Q. The BJA TSLRIC Cost Study excludes the cost of baseload switching software. Is this proper?

A. No. Baseload switching software is the basic software necessary for the switch to operate. It is analogous to DOS and Windows software for your home computer. No switched service, including switched access, can be provided without this software. Thus, baseload software is a shared cost, similar to poles, conduit, or land & buildings. Under the Forward-Looking Economic Cost standard, baseload switching software is properly included as a **directly attributable** shared cost[10]. Sprint correctly attributes baseload switching software to the cost of switched access. The modification Sprint has made to BJA's cost study to capture cost for baseload switching software can be found at lines 5, 6, 9, and 10, page 2 of 3, of Farrar HC Schedule 1-1.

[10] FCC Local Competition Order, Paragraph 682

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3. Tandem Switching

Q. Has BJA correctly calculated the cost of tandem switching?

A. No. The BJA TSLRIC Cost Study incorrectly calculates the cost of tandem switching based on total statewide switching costs. Therefore, it is composed of the cost of all switches in Missouri.

In reality, the access tandem function only occurs in a few switches. The access tandem switches tend to be larger than the average switch, and of lower cost than the average switch. Thus, by relying on statewide averages, rather than specific access tandem offices, the BJA TSLRIC Cost Study methodology is **overstating** the cost of tandem switching by more than 40%. Sprint correctly considers only tandem offices when calculating the cost of tandem switching. The modification Sprint has made to BJA's cost study to capture a cost for tandem switching can be found at lines 4, 8, and 10, page 2 of 3, of Farrar HC Schedule 1-1.

B. TRANSPORT COSTS

1. Fiber Optic Terminals

Q. Does BJA include the entire cost of fiber optic terminals?

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A. No. BJA excludes the entire cost of the OC-3 terminal, and reduces the cost of OC-12 and OC-48 terminals by an amount equal to the cost of the OC-3 terminal. There is no explanation why this is done. Such an approach is inconsistent with the Forward-Looking Economic Cost standard.

Q. Is the entire cost of fiber optic terminals variable in the long-run?

A. Yes, this is easily demonstrated. Fiber optic terminals are available in different capacities. Each fiber optic terminal "size" has a finite capacity. The following table illustrates some typical fiber optic terminal capacities utilized by Sprint.

Fiber Optic Terminal Capacities

OC Level	Bit Rate	Voice Grade Capacity	Fibers Required
OC – 3	155.52	2,016	2
OC – 12	622.08	8,064	2
OC – 48	2,488.32	32,256	4
OC – 192	9,953.28	129,024	4

At initial installation, a small fiber optic terminal can be installed. As demand increases in the long-run, the smaller fiber optic terminals are exhausted and larger terminals are substituted. Thus, in the long run, as demand increases the size and cost of fiber optic terminals increase. Therefore, there is no reason to exclude the cost of the OC-3 fiber optic terminal in any instance. Sprint properly attributes fiber optic terminals to the cost of switched access. The modification Sprint has made to BJA's cost study to capture cost for fiber optic terminals can be found at line 1, page 1 of 3, of Farrar HC Schedule 1-1.

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2. Fiber Cable Facilities

Q. Is cost of the fiber cable facilities variable in the long-run?

A. Yes. As shown on the above table, the number of fiber cables required to operate the fiber optic terminal varies with the capacity of the terminal. Smaller fiber optic terminals require only two fiber cables, while larger terminals require four fiber cables. Therefore, as demand increases, larger capacity fiber optic terminals must be employed, and more fiber cable facilities must be employed. BJA incorrectly excludes the cost of the fiber cable facilities. Sprint correctly attributes fiber cable to the cost of switched access. The modification Sprint has made to BJA's cost study to capture cost for fiber cable facilities can be found at line 2, page 1 of 3, of Farrar HC Schedule 1-1.

3. Utilization Factors

Q. What utilization factors were used by the BJA TSLRIC Cost Study?

A. BJA incorrectly assumes all OC3 terminals have a utilization factor of 37%. All OC12 and OC48 terminals are assumed to have a utilization factor of 46%. The source of this assumption is not clear. However, these assumptions are not based on reasonably accurate fill factors as they are neither Sprint-specific nor Missouri-specific. The BJA utilization factors are not based on actual data.

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Q. Are the BJA utilization factors consistent with the Forward-Looking Economic Cost standard?

A. No. The Forward-Looking Economic Cost standard, as defined in Paragraph 682 of the FCC Local Competition Order, requires the use of "reasonably accurate fill factors."

Q. Please describe what is meant by "reasonably accurate fill factors."

A. Paragraph 682 of the FCC's Local Competition Order states,

> Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that **will** be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a **reasonable projection** of the actual total usage of the element. (Emphasis added)

Fill factors are the percentage of available network capacity utilized. Utilization is due to three factors.

1. When engineering and building telecommunications facilities, LECs attempt to anticipate future needs. For example, it is more cost-effective to dig a trench once and install additional facilities, than to dig up the trench and install new facilities every time a new loop is required.
2. It is the nature of the telecommunications industry that capacity is acquired in large blocks. Additional capacity will exist while demand grows into the available capacity.

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3. An engineering interval, a period of time necessary to plan and construct facilities, is required when replacing or expanding capacity.

Efficient deployment balances the cost-benefit relationship of unused capacity and the cost of installation. Not enough capacity results in inefficient rework (e.g. digging new trenches every month); too much capacity is an inefficient use of resources (e.g., burying plant that will never be used).

Q. How does Sprint determine its utilization factors?

A. Consistent with the FCC's Local Competition Order, Sprint bases its utilization factors upon actual total service demand. Sprint's utilization factors are specific to Sprint's ILEC territories in Missouri. These utilization factors can be found at lines 5 – 7, page 1 of 3, in Farrar HC Schedule 1-1.

C. ANNUAL CHARGE FACTORS

1. Depreciation Lives

Q. Please discuss the use of forward-looking economic depreciation lives.

A. The use of forward-looking economic depreciation lives in the Forward-Looking Economic Cost standard ensures that costs represent the actual useful economic lives of ILEC facilities, instead of regulatory lives. The actual useful

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economic lives may be different from that reflected in the existing prescribed depreciation rates.

Q. What depreciation lives are used by the BJA TSLRIC Cost Study?

A. The BJA TSLRIC Cost Study uses depreciation lives that are generally longer than those used by Sprint. These depreciation lives are also longer than the forward-looking lives of the technology. It is not clear where BJA arrives at its depreciation lives.

Q. How does Sprint calculated its forward-looking depreciation lives?

A. Sprint's depreciation rates are designed to allocate the original cost of assets over the periods in which those assets are used and useful. To establish the asset lives for the various asset accounts, Sprint considers the physical and technological obsolescence that will affect the useful life of each account's assets. Physical obsolescence, which includes normal wear and tear on assets over time that will cause the assets to be replaced, leads to assessment of projected useful service lives. Where technological obsolescence is the dominant factor in plant replacement, Sprint considers the pace at which new technology will become cost-effective to replace existing assets, estimates retirement dates, and establishes a life for those assets accordingly.

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Sprint's depreciation rate design is in accordance with methods specified by NARUC. (Public Utility Depreciation Practices, NARUC Staff Subcommittee on Depreciation, Washington DC, 1996)

These depreciation lives can be found at lines 3 and 4, page 3 of 3, in Farrar HC Schedule 1-1. The following table summarizes the principal depreciation lives used by BJA and Sprint.

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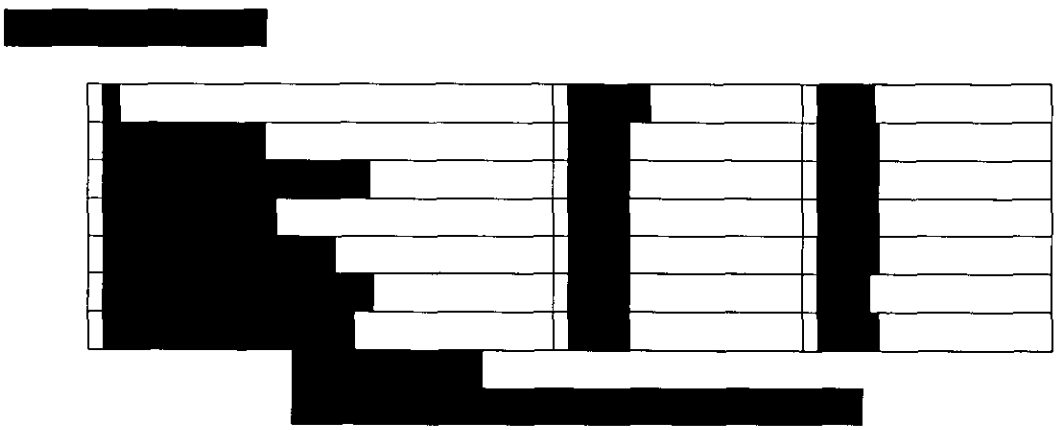

***** END HC *****

2. Maintenance Factors

Q. Please discuss the use of forward-looking maintenance rates.

A. The use of forward-looking maintenance rates in the Forward-Looking Economic Cost standard ensures that costs represent the actual forward-looking

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maintenance expenses associated with ILEC facilities, instead of embedded expenses.

Q. What maintenance rates are used by the BJA TSLRIC Cost Study?

A. The BJA TSLRIC Cost Study uses maintenance rates that are generally higher than those used by Sprint. This actually creates higher costs than Sprint's factors. It is not clear where BJA arrives at its maintenance rates. However, it appears that they are based on 1996 embedded expenses. The fact that the BJA maintenance factors are greater than Sprint's is further evidence that BJA is relying on embedded rather than forward-looking information.

Q. How does Sprint calculate its forward-looking maintenance rates?

A. Sprint believes that its most recent experience is a reasonable measure of forward-looking maintenance costs. Recent data reflects the maintenance expense associated with a mix of both new and old plant, i.e. average life plant. Since forward-looking maintenance expenses should reflect the entire life of new technology, it is reasonable to use maintenance factors which reflect average life.

These maintenance factors can be found at lines 5 and 6, page 3 of 3, in Farrar HC Schedule 1-1. The following table summarizes the principle maintenance factors used by BJA and Sprint.

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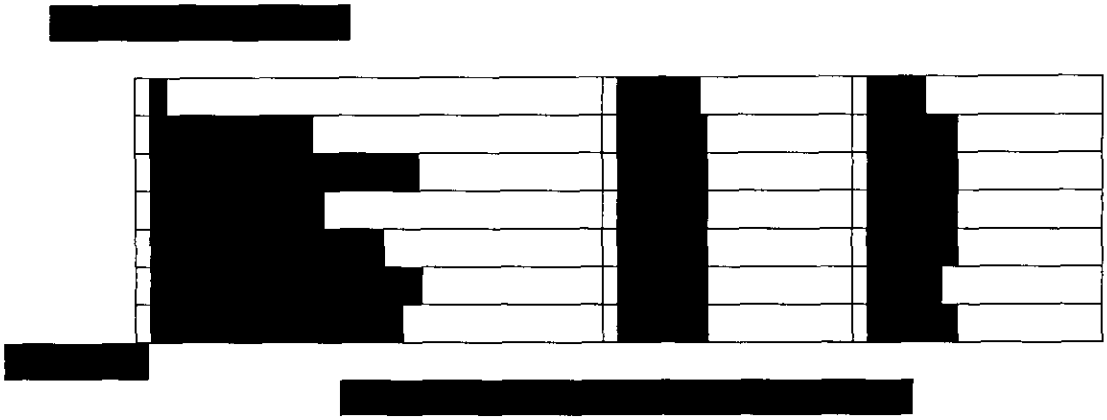

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3. Cost of Capital

Q. What is the rate of return used in the BJA TSLRIC Cost Study?

A. The BJA TSLRIC Cost Study assumes an overall cost of capital of 9.98%. This is composed of a capital structure which is 45% debt and 55% equity. The cost of debt is 7.5%, and the cost of equity is 12.00%. It is not clear where BJA arrives at its cost of capital.

Q. Is this equal to Sprint's forward-looking cost of capital?

A. No. While it is not clear exactly where the BJA cost of capital originated, it is not Sprint-specific, and certainly not equal to Sprint's forward-looking cost of capital.

Q. What is Sprint's forward-looking cost of capital?

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A. The access cost study Sprint filed on December 4, 2001 included an overall rate of return on investment of 12.56%. This reflects a market-valued capital structure of 82.39% equity, 17.61% debt. The current Sprint-specific cost of debt is 7.80%. The current, forward-looking cost of equity is 13.58%. These cost of capital values can be found at lines 1 and 2, page 3 of 3, in Farrar HC Schedule 1-1.

4. Shared and Common Expenses

Q. The BJA TSLRIC Cost Study annual charge factor includes maintenance, depreciation, return, and taxes. Are there any expenses the BJA TSLRIC Cost Study fails to include?

A. Yes. The BJA TSLRIC Cost Study fails to include a reasonable allocation of joint or shared costs, as defined by the FCC Local Competition Order.

Q. What is a joint or shared cost?

A. According to the Local Competition Order, Paragraph 676, joint costs are

> ... incurred when two or more outputs are produced in fixed proportion by the same production process (i.e. when one product is produced, a second product is generated by the same production process at no additional cost).

Q. What is a common cost?

A. According to the Local Competition Order, Paragraph 676, common costs are

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> ... incurred in connection with the production of multiple products or services, and remains unchanged as the relative proportion of those products or services varies (e.g., the salaries of corporate managers).

Note that the FCC refers to joint and common costs in Paragraph 676 in a generic manner.

> ... For purposes of our discussion, we refer to joint and common costs as simply common costs unless the distinction is relevant in a particular context.

Q. How does the FCC's Forward-Looking Economic Cost standard consider shared expenses?

A. Paragraph 682 of the Local Competition Order states that shared costs should be assigned to the greatest extent possible.

> For example, the costs of conduits shared by both transport and local loops, and the costs of central office facilities shared by both local switching and tandem switching, shall be attributed to specific elements in reasonable proportions. More broadly, certain shared costs that have conventionally been treated as common costs (or overheads) shall be attributed directly to the individual elements to the greatest extent possible. The forward-looking costs directly attributable to local loops, for example, shall include not only the cost of the installed copper wire and telephone poles but also the cost of payroll and other back office operations relating to the line technicians, in addition to other attributable costs.

By attributing shared costs to the greatest extent possible, the Forward-Looking Economic Cost standard minimizes common costs.

Note that the FCC's Forward-Looking Economic Cost standard is composed of two components, directly attributed costs and common costs. Whether shared

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costs are directed attributed or treated as a common cost, the end result is the same. The end result is that the Forward-Looking Economic Cost standard includes shared costs, either directly attributed or an increased common cost factor.

Q. How does Sprint treat shared and common expenses?

A. Sprint agrees with the FCC's approach. The Local Competition Order refers to the terms joint and common costs. These are equivalent to what Sprint refers to as Other Direct Expenses and Common costs.

Other Direct Expenses include network and general support expenses, including provisioning, power, plant operations, and engineering expenses. These other direct expenses can be found at line 7, page 3 of 3, in Farrar HC Schedule 1-1.

Q. Does the BJA TSLRIC study include common costs, such as corporate overhead expenses (Executive & Planning, accounts 6710, and General & Administrative, account 6720)?

A. No. However, BJA acknowledges that common costs are appropriately included in the price of switched access.

> Common Costs: Corporate overheads and other common costs have not been included in these draft studies. These costs should be considered when making comparisons with existing rates, and when using the results of these cost studies to develop recommended rates. Although they can vary more widely, common costs are typically in the range of 10% to 15% of direct costs.

NP

5. Total Annual Charge Factors

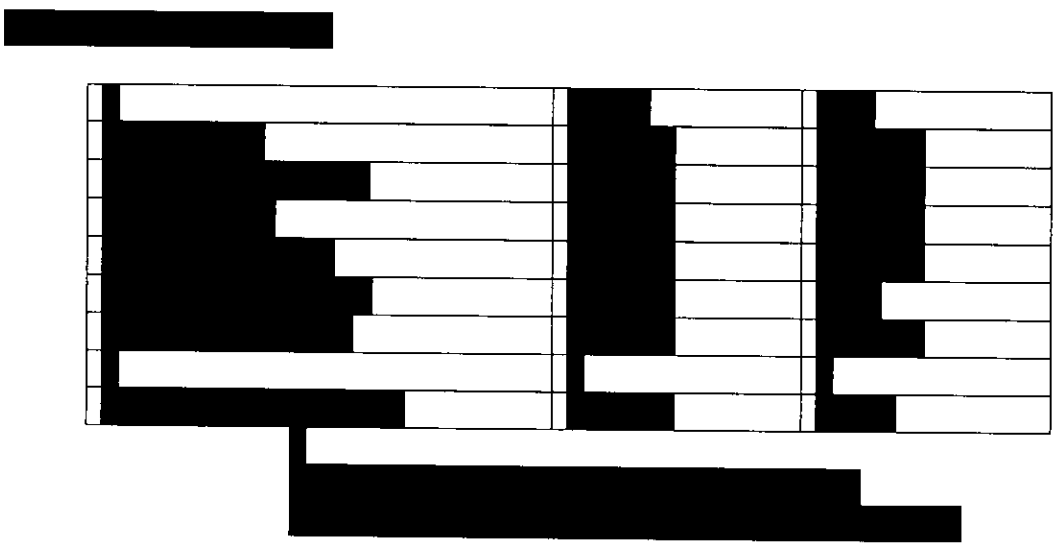
Q. What are Sprint's recommended annual charge factors?

A. As discussed in sections 1 – 4 directly above, when compared to the annual charge factors utilized by the BJA TSLRIC Cost Study, Sprint recommended annual charge factors include generally shorter depreciation lives, lower maintenance factors, a higher cost of capital, and a direct attribution of shared expenses.

Sprint also recommends a common cost factor of 13.10%.

The following table summarizes the principle annual charge factors used by BJA and Sprint.

***** BEGIN HC *****



***** END HC *****

NP

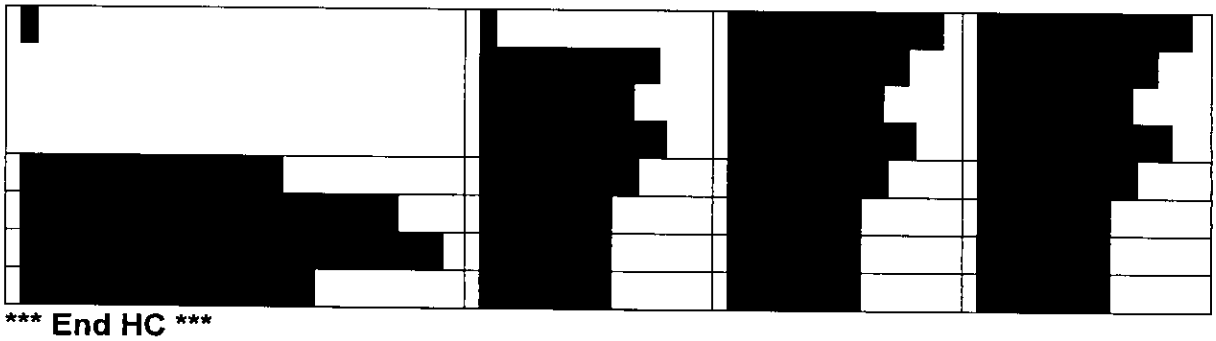
V. SPRINT'S FORWARD-LOOKING ECONOMIC COST OF SWITCHED ACCESS

Q. What is Sprint's Forward-Looking Economic Cost of switched access?

A. Sprint has modified the BJA "TSLRIC" cost study to make it comply with the FCC's Forward-Looking Economic Cost standard. Farrar HC Schedule 1-1 summarizes the changes made to the inputs to the BJA TSLRIC Cost Study. Also, the attached Highly Confidential electronic file contains the BJA TSLRIC Cost Study with Sprint's modified inputs.

The following table summarizes the costs of switched access as determined by the BJA TSLRIC Cost Study and the Sprint-Modified BJA TSLRIC Cost Study.

***** Begin HC ***** [redacted]



***** End HC *****

VI. CONCLUSION

Q. Please summarize your testimony.

NP

A. Sprint believes that the cost of switched access should be based on the Forward-Looking Economic Cost standard, as discussed above. The BJA TSLRIC Cost Study fails to comply with this standard.

The BJA TSLRIC Cost Study does not accurately reflect the Sprint's cost of switched access. It incorrectly excludes the cost of directly attributable shared facilities, uses improper utilization factors, overstates depreciation lives, uses improper maintenance factors based on embedded expenses, understates the cost of capital, excludes directly attributable shared expenses, and excludes common costs.

Q. Does this conclude your direct testimony?

A. Yes, it does.

NP

NOTICE

THE SCHEDULES REFERRED TO IN THIS TESTIMONY CONTAIN HIGHLY CONFIDENTIAL AND/OR PROPRIETARY INFORMATION AND ARE CONSEQUENTLY NOT ATTACHED TO THIS NON-PROPRIETARY VERSION.

NP