ORIGINAL

SPRINT-FLORIDA, INC.
DOCKET NO. 961230-TP
FILED: February 11, 1998

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

KENT W. DICKERSON

Q. Please state your name, business address, employer and current position.

A. My name is Kent W. Dickerson. My business address is 5454 West 110th Street, Overland Park, Kansas 66211. I am presently employed as Director Cost Support for Sprint/United Management Company. I am testifying on behalf of Sprint - Florida, Inc. (hereafter collectively referred to as "Sprint" or the "Company".

Q. Please describe your educational background and business experience.

A. I received a Bachelor of Science degree from the University of Missouri - Kansas City in 1981 with a major in Accounting. In 1984, I passed the national exam and am a Certified Public Accountant in the State of Missouri.

From 1981 to 1983, I was employed as a Corporate Income

Tax Auditor II for the Missouri Department of Revenue. From 1983 to 1985, I worked for Kansas Power and Light (now Western Resources) in the Tax and Internal Audit areas. I joined United Telephone Midwest Group in September, 1985 as a staff accountant in the Carrier Access Billing area. Thereafter, I moved through a progression of positions within the Toll Administration and General Accounting areas of the Finance Department.

In 1987, I was promoted into the Carrier and Regulatory Services group as a Separations/ Settlement Administrator performing Federal and Intrastate access/toll pool settlement, reporting and revenue budgeting functions. I was promoted to Manager - Pricing in June, 1989 where I performed FCC regulatory reporting and filing functions related to the United Telephone - Midwest Group Interstate Access revenue streams.

In 1991, I was promoted to Senior Manager - Revenue Planning for United Telephone - Midwest Group. While serving in this position my responsibilities consisted of numerous FCC regulatory reporting and costing functions. In 1994, I accepted a position within the Intrastate Regulatory operations of Sprint/United Telephone Company of Missouri where my responsibilities included regulatory

compliance, tariff filings, and earnings analysis for the Missouri company's intrastate operations.

Since December 1994, I have set-up and managed a work group which performs cost of service studies for retail and wholesale local network services. Over the last 3 years I have been charged with developing and implementing cost study methods related to the evolving Total Service Long Run Incremental Cost ("TSLRIC") and Total Element Long Run Incremental Cost ("TELRIC") methodologies. In addition, I am responsible for filing written comments, serving on industry work groups, and participating in technical conferences related to TSLRIC/TELRIC costing methodology and the filing of studies within the individual 19 states that comprise Sprint's Local Telephone Division. I have testified in Wyoming, Kansas, North Carolina and Florida regarding TSLRIC/TELRIC cost matters.

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

A. The purpose of my testimony is to sponsor and describe the Company's cost studies for the pricing of the unbundled network element (UNE) - Local Loop and the development of the annual charge factors, and Other

Direct and Common cost factors used in Sprint's UNE cost study process.

Q. Mr. Dickerson, please summarize your testimony.

A. My testimony focuses on the development of the forward-looking costs for the unbundled network element-local loop, which Sprint is required by the Telecommunications Act of 1996 to provide to competitive local exchange carriers ("CLECs").

The critical element of Sprint's unbundled loop study is the use of Florida specific, forward-looking cost data - not nationwide default proxy cost data - to develop the various input information. This approach assures that the costs developed are not only forward-looking, but that they reflect the unique nature of Sprint's Florida service territory and operations. The Benchmark Cost Proxy Model ("BCPM") 3.1 was used in conjunction with Sprint Florida specific inputs to produce forward-looking, disaggregated loop investment information.

As part of the costing process, I develop the annual charge factor ("ACF") using Sprint's Annual Charge Factor Program ("ACFP"), which converts the incremental,

forward-looking network element investment into an annual cost. The principal components of the ACFP are maintenance, tax depreciation, economic life, cost of capital and ad valorem taxes. These components are forward-looking, Florida-specific.

I also develop the common costs which must be recovered in the prices of the unbundled elements if the Company is to recover its costs of providing the unbundled elements. The study which I use to ascertain the amount of common costs relies upon forward-looking, Florida-specific cost data. Sprint's current level of common costs have been reduced approximately 33% to recognize a forward looking level of common costs. Once the TSLRIC amount for an unbundled element has been developed, the common cost factor is added to provide a uniform percentage contribution to common costs from all unbundled network elements.

Unbundled network elements should be priced on a geographic deaveraged basis to accurately portray the cost of providing the unbundled network element. For example, using the underlying Florida investment data which has been collected on a highly disaggregated basis through the BCPM, the TSLRIC developed loop costs are

deaveraged to reflect cost differences driven by densities, distances and other geographic-based factors.

I. Introduction

Q. Please provide some general background information regarding the principles governing Sprint's costing methodology and the pricing of unbundled loops.

A. Section 251 of the Telecommunications Act of 1996 ("Act") sets the overall standard for pricing network elements. The Act directs that elements be priced on the basis of "cost," together with a reasonable profit. The Act states, at Section 252(d)(1) that:

> Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2), and the just and reasonable rate for network elements for purposes of section (c)(3) of such section-
>
> (A) shall be -
>
> (i) 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) nondiscriminatory, and

(B) may include a reasonable profit.

Q. Please describe Sprint's pricing policy for network elements.

A. Sprint believes that prices for network elements must be based on economic costs. More specifically, Sprint recommends:

- Prices for unbundled elements should be developed using a TSLRIC-based costing methodology plus a contribution to common costs.

- The level of contribution to shared and common costs should be recovered from each network element using a consistent percentage loading applied to TSLRIC results.

- The reasonable profit level to be included in TSLRIC should be based on a risk adjusted forward

looking cost of capital.

- Prices for network elements should be geographically deaveraged, where such cost differences have been quantified.

Q. Please explain what is meant by TSLRIC.

A. TSLRIC represents the incremental cost of an entire product. In other words, TSLRIC represents all the costs directly caused by a service. TSLRIC includes all of the service-specific fixed costs and volume sensitive costs. It represents the total direct burden that the service places upon the resources of the company. In more precise terms, TSLRIC is the difference between (1) the total long-run cost of a company that provides the study service and a number of other services, and (2) the total long-run cost of that same company if it provided all of its other services in the same quantities, but not the study service.

Q. Is TSLRIC costing different from TELRIC costing?

A. Essentially, TSLRIC and TELRIC costing methodologies are the same. Their differences are related to the items

being costed, not the method of developing the costs. The FCC Order, paragraph 678, states,

> While we are adopting a version of the methodology commonly referred to as TSLRIC as the basis for pricing interconnection and unbundled elements, we are coining the term "total element long run incremental cost" (TELRIC) to describe our vision of this methodology. The incumbent LEC offerings to be priced using this methodology generally will be "network elements," rather than "telecommunications services," as defined by the 1996 Act.

TSLRIC studies determine the forward-looking, long run incremental cost of services while TELRIC studies determine the forward-looking, long run incremental cost of network elements. Neither TSLRIC nor TELRIC include common costs. Many shared costs at the service level are direct at the element level. The FCC chose the term total "element" long-run incremental cost to reflect that the "services" in question are, in reality, "elements" of the network. The FCC also noted that unlike telecommunication services, network elements correspond to distinct network facilities.

II. The Unbundled Loop Study

Q. Mr. Dickerson, please describe the unbundled loop network element.

A. The unbundled loop element is the facility between the distribution frame in the central office and the customer's premises.

Q. Has Sprint completed a study for the unbundled local loop network element?

A. Yes. Sprint has completed a TSLRIC study for the unbundled local loop as an unbundled network element. This study results in six deaveraged unbundled loop prices shown in the local loop section of the Pricing and Costing Studies.

Q. What model did Sprint utilize in performing this study?

A. Sprint used the BCPM 3.1 in this study for purposes of determining the loop investment by grid. The BCPM was adapted so that only the Florida-specific loop investments were determined for each grid. The Sprint unbundled loop study includes only those grids which

Sprint serves within the state of Florida.

The BCPM produced for each grid the investment in local loops assuming efficient engineering and design criteria and deployment of current state-of-the art loop technology, using Sprint's existing wire center locations.

The investment results for the grid represent the forward looking cost of placing new loop plant from currently existing wire centers. Consistent with the requirement to deaverage prices for unbundled network elements, the cost differentials between grids reflect differences in the distance from the wire center, the density of households, and the impact of terrain upon the cost of placing local loops. Terrain factors reflected in the model results include depth of bedrock, depth of water table, hardness of bedrock and surface soil texture.

Q. Are there any additional costs beyond those included in the BCPM investment results which are incurred as a result of providing unbundled loops to competitive providers?

A. Yes. There are the costs of equipment necessary to

terminate the loop inside the central office. This equipment consists of main distribution frame and protection. These costs are included in the overall BCPM switching inputs that were zeroed out and are not included in the BCPM loop investment results. Therefore these equipment costs were developed separately (see Schedule 2 behind tab Local Loop in the Pricing and Costing Studies.

Q. Again referring to your approach for TSLRIC studies, please explain how forward-looking installed costs were utilized in your unbundled loop study.

A. As noted earlier, Sprint used the BCPM to develop the Florida investment in local loops. The BCPM allows for user adjustable inputs so that it can be state and company-specific. For example, BCPM calculations make use of nine density groups. Through user-adjustable inputs for each density group, Sprint was able to determine the Florida-specific: plant mix of aerial, buried and underground facilities; feeder and distribution cable fill factors; mix of construction techniques necessary to place plant; and the cost per foot to place plant. In addition, the BCPM takes into account the terrain variables for each specific grid by

using U.S. Geological Survey and Soil Conservation Service data. Further, BCPM allows user-adjustable inputs in each of the nine density groups for structure sharing involving feeder and distribution cable (unique inputs for aerial, buried, and underground), poles, and anchors and guys. Finally, BCPM allows user-adjustable inputs for the material and labor costs relative to each of the major equipment components making up a loop (e.g., fiber and copper feeder and distribution facilities, poles, conduits, manholes, feeder/distribution interface devices, DLC, drop terminals and drops). Installed equipment prices are based on numerous equipment and cable sizes so that the least cost, most efficient equipment component can be used in modeling the loop cost.

Q. How were the model inputs developed to be Sprint specific?

A. There are numerous inputs that are Company-specific: structure costs, structure sharing, cable and material costs, DLC costs, fill factors and cable plant mix. These inputs were developed through special studies and current labor and material prices.

Q. Would you please describe the structure cost input?

A. Structure costs, which are the installed costs for the structures supporting copper and fiber feeder and copper distribution cable, are based on the specific conditions encountered in the Company's Florida Service area. Costs for buried and underground structures were developed based on the most recent contractor prices currently in effect for 1998 within Sprint's Florida serving area. Since Sprint pays the same contractor prices across all of its Florida serving area, these costs do not vary and were used in all density groups. The construction activity percentages are based upon an analysis of the total 1997 actual contractor jobs for construction of feeder and distribution routes within Sprint's Florida serving area.

Q. Would you please describe the structure sharing input?

A. Structure sharing, which impacts the percent of costs assigned to telephone, is based upon an assessment of current and projected opportunities to have other entities share the cost of the support structure. For example, the percent assigned to telephone is set at [redacted] percent for aerial feeder to reflect existing and

expected pole sharing and pole attachment agreements. On the other hand, the percent assigned to telephone for buried and underground (conduit and manhole) feeder structures is set at 95 percent for most grids to reflect the fact that sharing with other entities, such as power companies and cable companies, is limited. There are work coordination, safety, and available space considerations which make significant sharing of buried and underground construction costs unlikely.

Q. Could you please describe the cable material cost inputs?

A. The inputs for cable material costs were developed separately for copper and fiber cable and reflect fully loaded cost, including exempt material overheads, labor and labor overheads. Copper cable inputs were based on the Sprint's current material prices and Florida specific company labor and contractor prices for engineering and installation. Fiber cable costs were developed in the same manner.

The input for DLC costs was based on a bottom-up calculated cost using Sprint's current cost for material, engineering, labor, overheads, and site preparation.

Q. Could you please describe the fill factor inputs?

A. Fill factor inputs are calculated separately for feeder and distribution cables. Feeder fill is based upon working pairs divided by total pairs available as tracked in the Customer Loop Assignment System (CLAS). A distribution cable fill factors of 85% was used based on the assumption of two pair per household.

Q. Could you please describe the cable plant mix inputs?

A. The cable plant mix inputs are developed separately for copper feeder and distribution and fiber feeder. The copper feeder and distribution mix is based upon Sprint's actual mix of plant by the aerial, buried and underground categories.

Q. Next, please describe how carrying charges were factored into your unbundled loop study.

A. Once the installed investment cost for each grid is determined, the model applies the total TSLRIC carrying charge input for cable and wire facilities ("C&WF") to the C&WF investment and applies the total TSLRIC carrying charge for loop circuit to the loop circuit investment.

The carrying charges used are shown on the "Summary ACF" Schedule behind tab "Annual Charge Factors" of the Pricing and Costing Studies. The development of annual charge factors is described later in my testimony.

Q. How were the individual grid cost results used?

A. The TSLRIC results for each grid were first grouped by wire center and an average cost for each wire center was calculated (see Schedule 1 behind tab "Local Loop" of the Pricing and Costing Studies. For ease of administration, the wire center level results were then grouped into six bands based on the natural break points of the data (see Schedule 4 behind tab "Local Loop" of the Pricing and Costing Studies.

Q. As the final step in your approach to cost studies, please explain your approach to the allocation of common costs.

A. In order to comply with the FCC Order's direction to include a contribution to common costs in the TSLRIC based price, a common cost loading factor of [redacted]% was applied to the BCPM results. The common cost study is described later in my direct testimony.

Q. Please explain how Sprint's Unbundled Loop study complies with the TSLRIC methodology.

A. Sprint's unbundled loop study meets all of the TSLRIC criteria as follows:

1. TSLRIC studies are to utilize "total" direct incremental costs which are based on:

- "Total" element demand. (FCC Order, ¶ 677.)

The unbundled loop study reflects the cost to serve all the loops presently served within the Sprint serving territory. By properly including the total element demand the study includes the associated total incremental costs. For example the study includes feeder and conduit costs which are incremental to the total element demand, but may not be incremental to smaller levels of demand (e.g. total unbundled loops versus the next 100 unbundled loops).

- The most efficient technology available. (FCC Order, ¶ 690.)

The BCPM study assumes a cost efficient state of the art loop design. In order to reduce cost, loops are assumed

to share common copper or fiber feeder cables for some portion of their length. Loops beyond the 12,000 ft. length limitations of copper distribution cable also utilize the efficiencies of Digital Loop Carrier (DLC) devices to concentrate loops onto common fiber feeder cables. The sizing of cable and DLC devices are based on the total demand and assume efficient levels of fill

- Costs which are viewed over the long run such that all costs are "variable or avoidable." (FCC Order, ¶ 677, 692.)

The unbundled loop study adheres with this TSLRIC principle by treating all network components as incremental and variable over the long run. If viewed over a short run network components such as feeder cable or conduit might be unaffected by increases in demand over the same short run time period. This might occur due to unutilized capacity which allows more units to be sold without constructing more feeder cable or conduit. However, when properly viewed over the long run, the finite capacity of these network components will be exhausted and therefore their cost is incremental and has been properly reflected in Sprint's TSLRIC study.

- Cost causative pricing principles. (FCC Order, ¶ 691.)

Sprint's TSLRIC meets this costing criteria by including only those costs which meet the cost causation principle.

2. TSLRIC studies are to utilize risk-adjusted cost of capital and economic depreciation lives. (FCC Order, ¶ 703.)

As explained above, and in my discussion of the annual charge factor below, the carrying charges used in the TSLRIC loop study reflect a risk-adjusted cost of capital and economic depreciation lives.

Prices for unbundled network elements are to include a reasonable allocation of forward looking common costs(FCC Order, 694.) Sprint's TSLRIC loop study includes a reasonable contribution to forward looking common costs.

III. Annual Charge Factors

Q. What is the purpose of an annual charge factor?

A. The purpose of an annual charge factor is to convert an

investment amount into an annual recurring cost that includes capital recovery, return, income and ad valorem taxes, and direct maintenance expenses. The annual recurring cost is then divided by twelve to derive the monthly recurring cost. Factors were developed for each type of plant included in the TSLRIC studies, e.g., digital switching, circuit equipment, underground metallic cable, etc.

Q. Please describe Sprint's methodology for calculating the annual charge factor used in the above unbundled network element TSLRIC studies.

A. In order to calculate a single annual charge factor that is applicable throughout the life of the investment, it is necessary to smooth out the year-to-year differences due to capital costs on a declining net investment. This factor, when applied to investment, represents the cash flows (when discounted by the cost of capital) necessary to recover investment and related maintenance expense over the economic life of the plant. The Company has developed its own levelizer program, called the Annual Charge Factor Program (ACFP) to develop these TSLRIC factors. Schedule 1 behind tab "Annual Charge Factors" of the Pricing and Costing Studies contains the ACFP

output results used in the TSLRIC studies.

Q. What are the main components of the ACFP?

A. There are five main components.

1. Maintenance: Maintenance is stated as a percent of gross investment, and in most cases is based upon actual 1997 information.

2. Tax Depreciation: Actual tax depreciation schedules are used, which reflect the MACRS (Modified Accelerated Cost Recovery System) class of plant of each investment category.

3. Economic Life: Sprint's ACFP uses as a study period the predicted forward looking economic life of each investment.

4. Cost of Capital: The currently authorized federal cost of capital on investment of 11.25% is used and is supported in Mr. Quackenbush's testimony.

5. Ad Valorem Taxes: State specific property tax rates are used.

Q. Is the 11.25% cost of capital in this filing identical to Sprint's 11.25% cost of capital previously filed in this docket?

A. No, it is not. The previously filed studies used the 11.25% cost of capital in a manner that achieved an after tax weighted return of 11.25%. The ACFs used in this filing treat the 11.25% cost of capital as pre-tax. After considering the tax deduction associated with the debt component, the effective after tax cost of capital used in this filing is [redacted]% which is [redacted]% below the level previously filed.

VI. Other Direct and Common Costs

Q. Sprint agrees with the FCC that the price of an unbundled element is equal to its TSLRIC plus a reasonable allocation of common costs. How does Sprint calculate the appropriate Other Direct and Common Cost factor?

A. The Other Direct and Common Cost study identifies two non-capital components: one for the Other Direct expenses associated with unbundled elements, and another which provides a contribution to recover common cost.

Other Direct factors are developed for each unbundled element. The Other Direct factors are added to the TSLRIC annual charge factors to arrive at the total TSLRIC annual charge factors.

A single annual common expense factor is identified for all categories of unbundled elements. Adding the common factor to unbundled elements recognizes that common costs are a necessary component of the Total Economic cost for each unbundled element.

Sprint has created an Excel workbook model to determine both the Other Direct and Common Cost factors. The program uses the most current data available, the 1997 general ledger, and various account specific analyses to develop a relationship between forward-looking expenses and the associated "forward looking" TSLRIC investment.

The Other Direct and Common Cost Study is set up in a matrix format with the expense accounts listed in rows down the page and the unbundled element categories listed in columns across the page (see "Summary of Other Direct and Common Expense Allocations" Schedule, behind the tab "Other Direct and Common Cost" of the Pricing and Costing Studies. Utilizing principles of cost causation and special cost analyses, expenses are attributed and assigned to each unbundled element category. In addition, a matrix is created to identify the investment associated with each unbundled element category. The

information in the investment matrix is then used for the Other Direct expense assignment and common cost allocation process.

Expenses associated with unbundled elements are those amounts forward looking and exclude retail costs that are avoided in a wholesale unbundled environment. Thus, for each applicable subaccount, the retail amount is subtracted from the 1997 general ledger amount to obtain the "Not-Avoided" wholesale level of expense.

The cost characteristic of each account is then determined to be either a Direct expense, Other Direct expense, Excluded or Common expense. Direct expenses are included in the development of the annual charge factor are used in the Other Direct and Common cost study to calculate the Total TSLRIC cost. This Total TSLRIC cost then serves as the denominator in calculating the common cost factor. This method calculates the common cost factor using the same base against which it is subsequently applied.

The narrative provided with the Other Direct and Common Cost study contains a list of the accounts contained in each of the Direct, Other Direct, Excluded or Common

categories. The excluded accounts are those investments and expenses which are either obsolete technologies (e.g. analog switches) or are not associated with unbundled network elements (e.g. paystations).

Expense amounts are assigned or allocated to one of the unbundled network elements based upon one of the following methods.

Direct - Directly assigned to a specific element. For example, Line Testing (6533) expense is directly assigned to loop.

Other Direct - Assigned based on a cost causative linkage to another account. For example, CO Testing (6533) expense is assigned based on central office investment.

Generally Allocated - Allocated based on a summary of the direct and other direct allocation accounts. For example, corporate overheads (67XX) are allocated in this manner.

The operating expense for each unbundled element is summed by type of cost: direct, other direct and common. A return on investment with its associated income tax

effect is then added to the operating expense of each unbundled element category by cost type.

Total direct TSLRIC investment for an unbundled element is calculated by multiplying the associated TSLRIC unit investment by the number of appropriate units (TSLRIC unit investment is a study input and is based on the results of the unbundled element studies).

Other Direct expense factors were then developed for each unbundled element by dividing the total other direct expenses by the associated TSLRIC investment. The Other Direct expense factors were then added to the annual charge factor to produce the Total TSLRIC factors as shown in the "Summary of TSLRIC, Other Direct Operating & Common Expense Factors" Schedule behind the tab "Other Direct and Common Cost" of the Pricing and Costing Studies. One overall common expense factor is calculated based on the total unbundled elements. The calculation uses the forwarding looking common costs as a numerator and total unbundled elements TSLRIC as a denominator. The calculation uses the forwarding looking common costs as a numerator and total unbundled elements TSLRIC as a denominator. The result of this calculation is a factor of [redacted]%. As a matter of policy Sprint believes it is

appropriate to incent efficiency and has consistently filed comments at the state and federal level in support of a [redacted]% maximum cap on common cost factors. Consistent with this stance, the common cost factor of [redacted]% was reduced to [redacted]%. This overall factor is used to provide a uniform percentage contribution to common costs of [redacted]% from all unbundled elements.

Q. How do the Other Direct Expense factors and the Common Cost factor reflect forward-looking costs?

A. Exhibit KWD of my testimony contains an analysis which I will now explain. Looking first at the line titled "Total Other Direct Expenses" the analysis shows that only [redacted]% of Sprint's current level of expenses is included in the forward looking Other Direct Expense factors. This results from the three adjustments made in columns B, D and E. The adjustment in Column B subtracts expenses which are avoided at wholesale per the results of Sprint's Avoided Cost study. The adjustment in Column D subtracts excluded expenses which are associated with obsolete technologies such as analog switching and analog carrier. Finally the adjustment in Column E removes a forward looking level of revenues anticipated from non-recurring charges for unbundled network elements thereby

ensuring these costs are not recovered twice.

Looking now at the second line of Exhibit KWD titled "Total Common Expenses", the analysis shows that only [redacted]% of Sprint's current level of common expenses has been included in the calculation of the [redacted]% common costs factor. The adjustment in column D subtracts approximately [redacted]% of Sprint's common costs as being allocated to obsolete technologies. Further, the adjustments in column F removes additional [redacted]% of Sprint's actual 1997 common costs. In summary Exhibit KWD of my testimony clearly demonstrates that the expenses in column G which were used to develop the Other Direct and Common Costs factors have been substantially reduced to reflect a forward looking level of expense.

Q. Does this conclude your testimony?

A. Yes.

her Direct and Common Cost - Study Summary

rint - Florida, Inc.

elve Months Ending December 1997

Expense Type	A Total Regulated	B Avoided Expense	C C=A-B Non Avoided Expense	D Excluded Expense	E Rent Revenue/ Service Connection Revenue Offset	F Reduction to 15% Cap	G G=C-D-E-F Unbundled Expense	H H=G/(A-E) %
tal Other Direct Expenses	[redacted]							
tal Common Expenses								

Exhibit KWD

Sprint-Florida, Incorporated
Docket No. 961230-TP
Filed February 11, 1998