The Authority finds that the requirements for intrastate ETC designation should be consistent with FCC's requirements[9] for interstate ETC designation. Specifically, in order to be designated as an intrastate ETC and be eligible to receive intrastate support, the Authority finds that eligible carriers must, throughout their service area: (1) offer the "core" services supported by the intrastate universal service fund; and (2) offer toll blocking; (3) offer access to the following services: directory assistance, interexchange carriers and operator services; and (4) offer such services using its own facilities or a combination of its own facilities and resale of another carrier's services, including the services offered by another eligible telecommunications carrier; (5) advertise the availability of and charges for such services using media of general distribution; and (6) comply with current and future service quality standards adopted by the TRA.

The Authority also finds that carriers must be certified with the Authority as an ETC in order to receive intrastate Universal Service support. Therefore, if a provider not under the TRA's authority desires intrastate Universal Service support, then that provider must be designated as an intrastate ETC. To receive an intrastate ETC designation, providers must file an appropriate request with the TRA and must comply with the requirements set forth above. Companies seeking intrastate ETC designation shall file with the TRA, a sworn affidavit from an official representative of the company, identifying the services provided as Universal Services

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[9] The FCC adopted Section 214(e)(1) rules for determining whether carriers should receive ETC designation and receive Universal Service support. The FCC states: "Pursuant to those criteria, only a common carrier may be designated as an eligible telecommunications carrier, and therefore may receive Universal Service support, and each eligible carrier must, throughout its service area: (1) offer the services that are supported by Federal Universal Service support mechanisms under section 254(c); (2) offer such services using its own facilities or a combination of its own facilities and resale of another carrier's services, including the services offered by another eligible telecommunications carrier; and (3) advertise the availability of and charges for such services using media of general distribution." FCC Order 97-157, ¶ 24.

and the manner in which such services are to be provided (e.g., own facilities, resell purchased UNEs, resell services purchased at wholesale rates, etc.).

The Authority adopts advertising guidelines consistent with the guidelines adopted by the FCC for interstate purposes. Specifically, the Authority finds that, in order to be eligible for intrastate support, carriers must advertise the availability of the required services throughout the service area of the carrier using media of general distribution. The Parties have not suggested that the TRA adopt any more stringent advertising guidelines. These advertising guidelines comply with section 214(e)(1)(B) of the *Communications Act, as amended.*

The Authority also defines the facility requirements for carriers to receive intrastate Universal Service support. The FCC interprets the term "facilities" to mean "physical components of the telecommunications network that are used in the transmission or routing of the services designated for support."[10] The FCC further concluded that a carrier offering any of the services designated for Universal Service support, either in whole or in part, over facilities obtained as unbundled network elements pursuant to Section 251(c)(3) of the *Telecom Act* satisfies the "own facilities" requirement of Section 214 (e)(1)(A)[11] of the *Telecom* Act. The FCC omitted pure resale from its definition of the term "facilities-based." The Authority finds that the FCC's facilities requirements are consistent with the Authority's goal of providing Universal Service support to the carrier providing the facilities and not to a reseller of the service. Therefore, the Authority adopts facilities requirements consistent with the FCC's requirements. Specifically, the Authority finds that, if an intrastate ETC provides supported services by reselling a service purchased at the wholesale discount, as determined in Docket 96-01331, *Avoidable Costs*, such ETC will not be eligible for intrastate Universal Service support

[10] FCC Order 97-157, supra note 2, ¶ 128.
[11] FCC Order 97-157, supra note 2, ¶ 160.

on that particular service. This approach ensures that the carrier incurring the cost of facilities will receive the support. Such a case might exist where a carrier is providing operator services and reselling local service (loop and switch) purchased at a wholesale discount. In this instance, the support will go to the carrier providing the service at the wholesale rate, not the reseller of the wholesale local service.

The Authority also finds that companies are not required to participate in this proceeding in order to receive Universal Service support. However, all companies desiring to receive Universal Service support must be designated as an intrastate ETC by the Authority.

Finally, rural certification has been previously addressed by the TRA in this docket by order dated November 3, 1997, and captioned *Order Establishing Procedures For Self-Certification Of Rural Telephone Companies Pursuant To Section 153(37) Of The Communications Act, As Amended, And FCC Order 97-157.* Consistent with that Order, the Authority finds that companies requesting rural certification from the FCC must file a copy of such request with the TRA.

ISSUE 4: Carrier of Last Resort Designation.

In addressing the carrier of last resort requirements included in State statutes and how these carrier of last resort requirements are to be reconciled with Federal laws on relinquishment of service, the Authority considered the following issues:

4a. Is the term carrier of last resort still relevant?

4b. If the term carrier of last resort is relevant, how do we designate?

4c. Can a carrier of last resort withdraw service and, if so, how?

Positions of the Parties

The Coalition states that a carrier of last resort and an ETC are similar and that each area of the state should have an ETC designated to act as a carrier of last resort. The Coalition further stated that there must be another ETC in place before an ETC can withdraw service. BST suggests that carrier of last resort has not been replaced by law, and that an ETC and a carrier of last resort are the same when there is only one provider. Furthermore, BST argues that when more than one ETC serves the same area, the carrier of last resort designation may no longer be necessary.

Findings

Tenn. Code Ann. § 65-5-207(a) requires that "carrier-of-last-resort obligations must be maintained after the local telecommunications markets are opened to competition." The FCC addresses carrier of last resort obligations in its ETC rules. FCC Rule 54.205[12] states that "A state shall permit an ETC to relinquish its designation as such a carrier in any area served by more than one ETC. An ETC that seeks to relinquish its ETC designation for an area served by more than one ETC shall give advance notice to the state commission of such relinquishment." Further, 54.205 states "Prior to permitting a telecommunications carrier designated as an ETC

[12] 47 CFR § 54.205.

to cease providing universal service in an area served by more than one ETC, the state commission shall require the remaining ETC(s) to ensure that all customers served by the relinquishing carrier will continue to be served, and shall require sufficient notice to permit the purchase or construction of adequate facilities by any remaining ETC. The state commission shall establish a time, not to exceed one year after the state commission approves such relinquishment under this section, within which such purchase or construction shall be completed."

We do not find the designation of carriers of last resort as articulated in state law irrelevant at this time, but instead recognize that the language of the law has not changed, and in service areas where only one ETC exists, the term as contemplated by statute is applicable. The Authority also finds that the exit requirements in FCC Rule 54.205 provide sufficient exit barriers to address carrier of last resort obligations required by TCA §65-5-207(a).

ISSUE 5: Service Areas for ETCs

During the proceeding, the Parties presented testimony regarding the designation of service areas for intrastate ETCs. Also discussed was the appropriate size of the service areas and ETC requirements for serving customers within the designated service areas. Prior to the hearing, the Parties identified the following related issues to be addressed:

5a. How does the TRA designate service areas for non-rural areas?

5b. Should an ETC be required to provide services throughout its designated service area? If so, what services must the ETC provide?

5c. Should rural carriers be required to file proposed service areas and can others comment on that filing?

5d. Are there are any unserved areas in Tennessee?

Positions of the Parties

All Parties filing testimony comment that non-rural service areas should be no larger than the wire center. Sprint and BST recommend designating census block groups ("CBGs") as service areas to reduce the impact of "cream skimming" because of the divergence of customers and associated costs found in some wire centers. BST admits, however, that designating service areas by CBG would be difficult to administer. Other Parties argue that preparing cost studies by census block groups would be burdensome because (1) the existing telephone network was constructed by wire centers instead of CBGs, and (2) CBGs may be served by more than one LEC. AT&T contends that requiring the competing local exchange company ("CLEC") to provide service throughout the incumbent local exchange carrier's ("ILEC") entire designated service area is a barrier to entry and should be avoided. NEXTLINK recommends not designating service areas for CLECs, only incumbents.

Findings

Guidance from the FCC and the Joint Board indicates that states should not designate service areas that are unreasonably large because "unreasonably large service areas will discourage competitive entry by increasing the expenses associated with such entry."[13] The FCC further stated that "although they agreed with the majority of the commentaries that smaller support areas better target support, they were concerned that it becomes progressively more difficult to determine accurately where customers are located as the support areas grow smaller. Carriers currently keep records of the number of lines served at each wire center, but do not know which lines are associated with a particular CBG." [14] In this proceeding, all Parties filing testimony agree that non-rural service areas should be no larger than the wire center, or the CBG. Although it is recognized that smaller support areas, such as CBGs, better target universal service support, the Parties generally acknowledge that CBG designation has inherent infirmities, such as identifying customers and costs by CBG alone, which make this option difficult and costly to overcome. The Authority therefore finds that service areas shall be designated by wire center. The Authority also finds that under the provisions of Section 214(e)(1) of *Communications Act, as amended,* an ETC must offer the services supported by the USF throughout the service area for which the designation is received,[15]

The Authority also finds that rural carriers shall not be addressed in this proceeding. The areas served by rural carriers will be supported by existing Universal Service support mechanisms until appropriate forward-looking support mechanisms (interstate and intrastate) are

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[13] FCC Order 97-157, supra note 2, ¶ 184.
[14] FCC Order 97-157, supra note 2, ¶ 185.
[15] 47 USC § 214 (e)(1).

developed for rural carriers. Once these forward-looking mechanisms are in place and rural carriers begin receiving intrastate support, it will be appropriate for rural carriers to contribute to the intrastate USF. The TRA may revisit the issue at that time. Finally, neither the TRA nor the Parties were aware of any unserved areas in the State.

ISSUE 6: Contributors to the Tennessee Intrastate Universal Service Fund

This section establishes the requirements for contributions to the intrastate universal service fund. The parties identified the following issues for consideration:

6a. Define telecommunications carrier. Is the TRA required to use the Federal definition?

6b. Does state or Federal law require contributions or participation from carriers not under TRA authority?

Positions of the Parties

AT&T, BST, and the Coalition argue that all telecommunications carriers, regulated or not, should contribute to the intrastate USF in order to receive support from any Tennessee USF system. AT&T, BST, Sprint, and the Coalition maintain that "telecommunications carrier" should be defined using the Federal definition contained in Section 3(a)(49) of the *Communications Act, as amended,* since it is broad and flexible. There was no cross examination on this issue during the hearing.

Findings

In order to define "intrastate telecommunications carrier," it is necessary to also define "intrastate telecommunications" and "intrastate telecommunications service." For purposes of this proceeding, the Authority finds that intrastate telecommunications carrier, intrastate telecommunications and intrastate telecommunications service be defined consistent with the Telecom Act.[16] Specifically, the Authority defines an intrastate telecommunications carrier as --

[16] Section 3(a)(49) of the *Communications Act, as amended,* defines telecommunications carrier as, "any provider of telecommunications services, except that such service does not include aggregators of *telecommunications* services." In addition, the *Telecom Act* defines telecommunications as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received" and telecommunications services as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."

any provider of intrastate telecommunications services, except that such service does not include aggregators of intrastate telecommunications services. The Authority defines intrastate telecommunications as -- the transmission, between or among points located within the State of Tennessee specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received. Finally, the Authority defines intrastate telecommunications services as -- the offering of intrastate telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

The FCC's May 8, 1997 Universal Service order provides states with guidance regarding USF contributors. In that order, the FCC found no reason to exempt any of the broad classes of telecommunications carriers that provide interstate telecommunications services from contribution to the interstate USF (including satellite operators, resellers, wholesalers, and paging companies) because the *Telecom Act* required every telecommunications carrier that provides interstate telecommunications services to contribute to the interstate USF. The FCC agreed with the Joint Board that any entity that provides interstate telecommunications services directly to the public for a fee must contribute to the interstate USF. The FCC's Order further provided that telecommunications services include, but are not limited to: "cellular telephone and paging services; mobile radio services; operator services; PCS; access to interexchange service; special access; wide area telephone service (WATS); toll-free services; 900 services; MTS; private line; telex; telegraph; video services; satellite services; and resale service."[17] In paragraphs 794 to 797 of the FCC's Order, the FCC also specifically concluded that payphone providers should contribute to the interstate USF.

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[17] FCC Order 97-157, supra note 2, ¶ 780.

Consistent with the requirements of the *Telecom Act*, the Authority finds that, except for the two exemptions noted below, all providers of intrastate telecommunications services in Tennessee, regulated or not, shall be required to contribute to the intrastate USF. The Authority finds that the following two (2) exceptions should apply to the requirement to contribute:

1) A temporary exemption from contribution by rural carriers and co-operatives as long as the rural carrier or cooperative is not serving non-rural customers and has not entered into an interconnection agreement to serve non-rural customers;
2) A *de minimis* exemption applicable if a telecommunications carrier's annual contribution to the USF is less than $1,000. Like the FCC, the Authority currently believes that the administrative cost of collecting the support will outweigh the amounts collected. The *de minimis* exemption will be consistently monitored and amended as the TRA deems appropriate.

This finding includes telecommunications carriers not subject to the authority of the TRA.[18] Requiring contributions from a broad base of telecommunications carriers will ensure equitable and nondiscriminatory contributions and will reduce the burden on any particular class of carrier. Although ILECs (including co-operatives), CLECs, IXCs, COCOTs, paging, and resellers are

[18] Both state and federal statutes provide broad authority for administration and enforcement of the intrastate USF by the TRA against all intrastate telecommunications carriers whether regulated or not by the TRA. Federal statute 47 U.S.C. § 254(f) states in pertinent part, "A State may adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service. Every telecommunications carrier that provides intrastate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, in a manner determined by the State to the preservation and advancement of universal service in that State." In addition, Tenn. Code Ann. 65-5-207(c)(4) states that the TRA shall, "Administer the universal service support mechanism in a competitively neutral manner, and in accordance with established authority rules and federal statutes. {Emphasis Added}

the most visible telecommunications carriers from which USF support will be obtained, like the FCC, a comprehensive list of carriers contributing to the USF will not be named at this time.

ISSUE 7: Affordability of Rates

In addressing the affordability of current rates and how the TRA will monitor the affordability of telephone rates, the following issues were considered:

7a. If current rates are set using existing statutes, are rates considered affordable?

7b. Must the TRA use Federal standards for affordability?

7c. If so, how should the TRA gather information, what information should be gathered, and how should the TRA apply the Federal standards in this case?

Positions of the Parties

All of the Parties filing testimony agree that defining affordability is a policy issue and not a legal or economic decision. The Parties maintain that current rates appear to be affordable based on a reported 94.5% subscribership level in Tennessee and the fact that this state's average local rate is below the national average.[19] UTSE and Time Warner comment that local rates could be increased and still remain affordable, yet no studies were presented in support of their position.

AT&T, MCI and Time Warner argue that Universal Service support should be provided only to subscribers who cannot afford to pay rates reflective of the cost of providing the service. They contend that support must be based on the subscriber's income level. BST, on the other hand, suggests that support be provided in high cost areas regardless of the subscriber's income level. BST further contends that basing support on the income levels of individual subscribers would be unduly burdensome and may violate the *Telecom Act* and state statutes prohibiting discriminatory pricing.[20] BST also points out that Tennessee already has Lifeline and Linkup, the state's vehicles for providing low income support.

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[19] Pre-filed direct testimony of Peter Martin at Page 14, and further referenced as *Telephone Subscribership in the United States*, FCC Industry Analysis Division, October 1997, citing July 1997 subscribership levels.

[20] Tenn. Code Ann. § 65-4-122 prohibits unjust discrimination in pricing.

Findings

Section 254(b)(1) of the *Telecom Act* states that "quality services must be available at just, reasonable, and affordable rates." State statutes indicate that rates are just and reasonable when they are deemed affordable.[21] In addition, State statutes have procedures for determining if rates are affordable when a company is under price cap regulation.[22] If a company is not under price cap regulation, the TRA has the power to fix just and reasonable rates after hearing, upon notice, by order in writing.[23]

In its May 8, 1997, Order adopting the Joint Board's Universal Service recommendations, the FCC indicates that "States should monitor rates and non-rate factors, such as subscribership levels, to ensure affordability.[24] We agree with the Joint Board that there is a correlation between subscribership and affordability and we further agree that joint examination by the Commission and the states of the factors that may contribute to low penetration is warranted in areas, such as insular areas, where subscribership levels are particularly low."[25]

After considering the FCC's comments and the Parties' position that current rates in Tennessee are at affordable levels based on statewide subscribership percentages and as compared to the rates in other states, the Authority finds that support should be provided on the primary access line of residential subscribers in high cost areas regardless of the subscriber's income level. There is no need, at this time, to build affordability standards into Tennessee's revenue benchmark, as long as the benchmark is based on current rates. The TRA's position promotes competition and customer options in high cost areas, and is consistent with the FCC's

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21 Tenn. Code Ann. § 65-5-209(a) states that rates are just and reasonable when deemed affordable.
22 Tenn. Code Ann. §. 65-5-208.
23 Tenn. Code Ann. §§ 65-5-201 to 203.
24 FCC Order 97-157, supra note 2, ¶108.
25 FCC Order 97-157, supra note 2, ¶108.

Universal Service conclusion that it shall not consider income levels in determining who should receive interstate Universal Service support.[26] The TRA further finds that affordability of rates should be monitored through periodic evaluations of subscribership levels and associated market conditions such as average income levels, inflation and other socioeconomic factors.

[26] FCC Order 97-157, supra note 2, ¶ 115.

ISSUE 8: Implicit and Explicit Subsidies

In order to establish the intrastate USF, the cost of providing service must be measured against the revenue generated from those services to determine if subsidies exist. Identification of subsidies is considered in the three (3) issues identified below:

8a. Define implicit and explicit subsidy.

8b. How does the TRA determine implicit and explicit subsidies in current rates?

8c. How does the TRA make implicit support explicit as defined by the Act and the FCC?

Positions of the Parties

Sprint defines implicit subsidy as existing support that is provided by unknown sources and amounts, and explicit subsidy as calculable and identifiable. The Tennessee Cable Telecommunications Association ("TCTA") contends that an implicit subsidy is the difference in forward-looking economic cost and the revenue benchmark and that it is not necessary to carry forward these implicit subsidies which could be a barrier to entry. Further, TCTA maintains that implicit subsidies could be converted to explicit subsidies over a phase-in of three years. The Coalition contends that defining implicit and explicit subsidies is not necessary and that, instead, the TRA should focus on determining reasonable, comparable, and affordable rates. BST comments that implicit rates are buried while explicit rates are clearly identified. AT&T argued that subsidies are deviations between prices at which transactions occur and prices at which transactions would occur in a competitive environment.

There is little agreement among the Parties on how to identify subsidies in current rates. NEXTLINK states that the TRA must identify services that are earning revenues in excess of their cost, and that implicit subsidies should be determined on a service by service basis. Citizens contends that embedded costs must be used to determine subsidies for rural companies. Sprint argues that the Authority should determine the funding requirement and net effect on each

carrier, then allow each carrier to rebalance rates based on the net impact. AT&T contends that only a few services comprise the majority of any subsidy, therefore, it is not necessary to determine current implicit subsidies. AT&T also states that the implicit subsidy in access should be determined first, then move to the next category until the needed subsidy is identified. BST argued that the amount and structure of USF depends on existing rates. BST believes that USF should begin with rate rebalancing so as to minimize the need for subsidies without jeopardizing the Universal Service objectives. TCTA contends that the TRA should obtain the revenues and costs for each supportable service to identify the implicit subsidies that exist in rates using fully distributed costs on a forward-looking economic cost basis. MCI recommends calculating the forward-looking economic costs using the FCC prescribed criteria to determine if the revenues cover costs.

Findings

For purposes of this proceeding, the Authority finds that a subsidy occurs when the costs associated with at least one good or service exceeds its revenue, while the revenues from the sale of some other set of goods or services exceed the associated costs, such that total costs are recovered. Implicit subsidies are "hidden" in the prices of certain goods or services. Moreover, the sources, amounts, and uses of implicit subsidies may not be known with precision. (e.g., one or more goods or services are priced above the level necessary to recover total costs and one or more other goods or services are priced below their costs, but the amounts and uses of the "subsidies" are not itemized.) All that is known with certainty is that total revenues equal or exceed the total costs of all the goods and services sold.

An explicit subsidy is a set payment intended to cover the cost in excess of revenues for certain goods delivered or services provided. The sources, amounts, and uses of the explicit subsidies are identified and known with precision. (e.g., service A is intentionally priced to

recover more than the costs for providing the service, thereby generating a revenue stream of a known amount to cover costs associated with Service B. In this case, the subsidy is explicit, because Service A is intentionally priced in excess of cost, the amount of subsidy is known, and the subsidy specifically covers the costs in excess of revenues for Service B, which is intentionally priced below cost.)

The Authority finds that a group of services is receiving a subsidy if the associated forward-looking economic costs exceed the revenues from the sale of the services. The costs associated with the Universal Service supported services are those which will be determined by the TRA in Phase II of this docket. The existing implicit subsidy for a particular wire center is the amount by which the costs of providing the services included in the revenue benchmark exceeds the revenues generated by the services in the benchmark. The TRA also finds that after the total amount of Universal Service support is initially determined in this way, the affected companies should file proposals to rebalance rates, including a plan to collect the resulting final support needed for Universal Service. In rate rebalancing, however, no rate should be reduced below the associated incremental cost of the service.

The Authority defers a decision on how to make implicit support explicit until the end of Phase II of this docket.

ISSUE 9: Revenue Benchmark and Preliminary Cost Modeling Issues

For clarity, the revenue benchmark and preliminary cost modeling issues will be discussed separately.

Revenue Benchmark

The revenue benchmark is used to identify the high cost wire centers in the state (i.e., the areas receiving a subsidy). High cost areas are defined as wire centers where the cost of the services included in the revenue benchmark exceed the revenues from the services in the benchmark. In this proceeding the Authority addresses the following issues:

9j. Which revenues should be included in the revenue benchmark?

9k. What time period should be used to calculate the revenue benchmark?

Positions of the Parties

Sprint/UTSE recommends an affordability benchmark, not a revenue benchmark which would be based on the maximum rate allowed to be charged for the supported services, local, touch-tone and Subscriber Line Charge ("SLC"). Sprint also argues that services such as toll, access and vertical services are subject to competition and are subject to rapid erosion and, therefore, should not be included in the revenue benchmark. The Coalition maintains that the most current revenues of services provided by the network for which the costs are included should be used in the benchmark. BST contends that current revenues for basic local service and SLCs should be included in the revenue benchmark. The effective tariff rate should be used and support should be adjusted when changes in the tariffed rate occur. Citizens comments that only the most current basic service revenues should be included. Time Warner argues for using the maximum rates deemed affordable in the benchmark, and having separate benchmarks for each study area, based on the most recent twelve months. AT&T maintains that the TRA should include the same revenues as those used by the FCC (local, discretionary, interstate and

intrastate access charges and other telecommunications revenues). These revenues should include revenues that will accrue to LECs from the Federal Universal Service support system. AT&T also recommends that the TRA should include the expected revenues from basic local discretionary services, Yellow Pages, intrastate and interstate switched access and intraLATA toll in the revenue benchmark. AT&T also maintains that the most recent 12 months of data should be used. MCI argues for using revenues that make up the Federal benchmark and including toll revenues (local, toll, access, discretionary including vertical, directory advertising, SLC and non recurring charges).

Findings

When competitors decide to provide service to residential customers in high cost areas, such competitors will offer a number of services to their residential customer (e.g., local service, long distance, vertical features, etc.). For this reason, the Authority finds that the revenue benchmark used in calculating support for each wire center should be the average revenue per residential line for that wire center. The average revenue should be calculated using the following services: basic local service, toll, directory assistance, all vertical features, touch-tone, zone charges, long distance access (intrastate/interstate), the interstate Subscriber Line charge, and white page services. In addition, the subsidy provided by Yellow Page advertising[27] should be included in the revenue benchmark.

Since the divestiture of AT&T in 1984, regulators and the courts have recognized the importance of Yellow Pages in keeping local rates affordable and maintaining universal service. In *United States v. AT&T, 552 F. Supp. 131, 194 (USDC D.C., 1982)* the Court stated " All

[27] Includes Yellow Page revenue generated by an affiliate or subsidiary of a telecommunications carrier in that wire center, in addition to the publishing fees included on the books of the regulated entity.

those who have studied the issue agree that Yellow Pages provide a significant subsidy to local telephone rates...The loss of this large subsidy would have important consequences for the rates for local telephone service." The Authority feels that it is important at this time to continue recognizing the Yellow Page subsidy. The Authority also finds that including Yellow Pages in the benchmark keeps the USF smaller than it otherwise would be, and, at least in the initial phases of local competition, best promotes market entry and market competition. Once the competitors are firmly established in the state and start expressing an interest in serving high cost areas, the TRA may consider removing Yellow Pages from the benchmark.

Although the Authority only requires that "core" services be supported by the intrastate universal service fund (Issue 1), it is not inconsistent to include additional services in the calculation of the revenue benchmark. In order to identify high cost wire centers prior to any rate rebalancing, it is essential to examine not only the costs, but also the revenues of all services which may be contributing to Universal Service costs. This identification includes revenues from virtually all residential services. Any wire center for which the costs exceed these residential revenues is supported by revenues from other geographic areas and/or from non-residential services. In contrast, wire centers where residential revenues exceed costs are net contributors to Universal Service today. These relationships will be important to rational rate rebalancing in Phase III of this proceeding. Moreover, the Authority has determined, as recommended by the Parties, that combined (unseparated) costs be used in identifying universal service costs. This means the cost of the loop, which is used by virtually all services, will not be allocated to individual services. Since all of the costs of the loop are to be included in the cost studies, it is necessary to include all of the revenues for the services using the loop.

The Authority also finds that the current approved tariff rates should be used to determine the revenue benchmark. Demand for usage sensitive revenues should be the latest

twelve (12) months to date units, and the demand for non-usage sensitive revenues should be the most current units.

Preliminary Cost Modeling Issues

While detailed decisions on cost studies will be made in Phase II, the following preliminary cost study issues were considered in Phase I:

9a. Should Universal Service cost studies be company-specific or generic?

9b. What is the proper territorial scope of Universal Service rates (e.g., statewide by carriers, by service area, or by category of support)?

9c. What is the proper level to which deaveraging should be applied in the cost studies?

9d. Should rural and non-rural study areas be combined or separated in the cost studies?

9e. Which network components are necessary to provide services included in Universal Service?

9f. Should Universal Service cost studies be based on cost studies for permanent UNE prices?

9g. Should costs be developed on a combined or intrastate basis?

9h. Should state specific or Federal factors be used in the cost studies?

9i. Is it possible to create a hybrid model from the individually proposed models?

Positions of the Parties

The positions of the parties differ significantly on whether the cost models should be generic or company specific. Sprint/UTSE, Citizens, and TCTA argue that the cost studies should be company-specific. BST maintains that the studies should be generic with state-specific inputs, preferably BST's since its inputs are represented to be those of an efficient firm and represents its actual forward-looking costs. BST also contends that retail costs should be included in the cost studies. Citizens advocates use of embedded costs. MCI maintains that the TRA should use Tennessee specific data. AT&T argues for using studies of an efficient firm.

The positions of the parties also vary significantly regarding the network components to be included in the universal service cost studies. Sprint/UTSE argues for including only the local line rate, touch-tone and SLC in the revenue benchmark; therefore, the components necessary to provide these services should be included in the cost studies. Sprint/UTSE argues against allocating a portion of the loop and switch to other services, (e.g., discretionary, toll, etc.). The Coalition contends that an in-depth evaluation should look at the entire cost of the network. BST argues for including the cost of providing basic local exchange service, (e.g., the loop and the port (non-traffic sensitive component of the local switch), unbundled local switching, unbundled tandem switching and unbundled common transport. Citizens contends that all the components necessary to provide basic service should be included. AT&T argues for including a two-wire loop, two-wire port (the non-traffic sensitive element of local switching, the usage rated element of switching, tandem switching and transport).

Many of the parties provided testimony on how universal service cost studies should compare with the cost studies of unbundled network elements (UNE). Sprint/UTSE indicates that it does not currently have a model that will calculate both UNEs and Universal Service. They contend that costs should be developed on a combined basis with company-specific factors. UTSE maintains that a hybrid model may be possible, but would require considerable time and expense. The Coalition argues that UNEs and Universal Service are used for different purposes and there should be a separate study for each and that costs should be developed on a combined basis with state specific characteristics.

BST argues for using two different models for UNE and Universal Service since, in their judgment, UNEs are calculated for the company as a whole, while Universal Service are calculated to the wire center level. Also, BST maintains that the BCPM model is not capable of providing UNE prices. According to BST, UNEs are wholesale service while Universal Service

includes retail services, and UNEs provide an uncombined loop and port, while Universal Service provides a combined loop and port. Additionally, BST argues that costs should be developed without regard to jurisdictional boundaries. BST suggests that the Authority should calculate the costs and then determine from which jurisdiction the revenues come, using state specific factors. BST also suggests that a huge amount of resources would be needed to develop a hybrid model.

Time Warner contends that Universal Service cost studies should reflect the forward-looking economic cost principles that have been applied for UNEs; however, the same cost proxy model should not be used for both. According to Time Warner, each proceeding should produce consistent results, with state-specific fill factors, labor rates, cost of capital and depreciation rates.

AT&T maintains that the costs for Universal Service should be consistent with the costs of UNEs. That is, Universal Service support should be based on the same cost studies used to calculate costs of UNEs. The facilities are the same in each proceeding; therefore, the methodology should be the same. Additionally, AT&T contends that retail costs are discretionary and should not be included; but, if the TRA decides to include retail costs, they can be added to the costs of the facilities. Also, AT&T recommends that cost studies should estimate the forward-looking economic costs, not jurisdictionally separated cost, and input factors should be representative of Tennessee.

Findings

The Authority finds that a generic cost model should be adopted for all companies. A generic model eases the portability of models between companies and serves as a common platform from which company-specific data can be assessed. The Authority also finds that the

territorial scope and level of deaveraging should be consistent with the finding on service areas (Issue 5). Specifically, the cost studies should reflect the estimated costs for each wire center.[28]

The Authority also finds that the cost studies should include the network components needed to provide all of the services in the revenue benchmark. At a minimum, the entire loop and port, and reasonable allocations of switching costs, tandem switching, transport and any software necessary to provide the services in the revenue benchmark must be included in calculating the forward-looking costs for each wire center.

In developing a Universal Service support program for Tennessee, the Authority finds that the cost studies should use factors which reflect the forward-looking, least cost technology of an efficient firm operating in Tennessee. Wherever possible, these factors should be state-specific with respect to the geographic, topographic, or demographic characteristics of a local service provider's territory at the wire center level. These factors do not necessarily have to represent the company-specific operating practices of the local service provider. The Authority also finds that while it is possible to create a single hybrid cost model, it does not appear to be practical. It may be more feasible to consider a combination of models, as long as the methodology and inputs are consistent, or use separate models for specific elements.

The Authority finds that the methodology and assumptions used in developing Universal Service costs and UNE prices should be consistent. Some competitors may provide universal services through the purchase of UNEs. The TRA recognizes that there are distinct issues to be addressed which may result in a difference between the Universal Service and UNE cost studies, such as inclusion of retail cost in Universal Service but not in UNEs. In order to compare the price of UNEs to Universal Service and make support compensatory to competing carriers, it is necessary to have consistency in cost methodologies, (e.g., study area and assumptions).

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[28] The revenue benchmark should also be calculated on the wire center level.