A. TELRIC

TELRIC is the methodology prescribed by the FCC and adopted by this Commission for pricing UNEs. Specifically, TELRIC is a forward-looking, cost-based pricing approach, comprised of operating expenses (reflecting the use of all resources), depreciation cost (reflecting the true changes in the economic value of an asset), and risk-adjusted cost of capital (reflecting risks incurred by investors). Section 252(d)(1) of the TA96 set forth general guidelines for pricing UNEs. This section states that in order for UNE rates to be just and reasonable, they "(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."

The FCC interpreted these guidelines in further detail in its First Report and Order, making several important determinations with regard to TELRIC. First, the FCC explained that TELRIC is based on total service long-run incremental cost ("TSLRIC"). TSLRIC indicates that the relevant increment, when determining cost, 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.[9] Likewise, "total element," in the context of TELRIC, indicates that the relevant increment, when determining cost, is the entire quantity of an element, rather than a marginal increment.

Second, the FCC stated that the "long-run" referred to in TELRIC assumes a time period in which all costs are variable and all sunk inputs or costs are eliminated. The long run approach ensures that rates recover not only the operating costs that vary in the short run, but also fixed investment costs that, while not variable in the short term, are necessary inputs directly attributable to providing the element.[10]

Third, the FCC concluded that, "all costs associated with the [sic] providing the element shall be included in the incremental cost,"[11] and more specifically, an ILEC's prices for UNEs "shall recover the forward-looking costs directly attributable to the specified element..."[12] Additionally, the FCC concluded that TELRIC should be "based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements."[13] Stated differently, TELRIC reflects all costs of building a network today with the most efficient technology, given the current central office, customer locations, and reasonable capacity forecasts.[14]

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[9] First Report and Order, ¶677.
[10] First Report and Order, ¶692.
[11] First Report and Order, ¶690.
[12] First Report and Order, ¶682.
[13] First Report and Order, ¶685.
[14] As will be described in further detail below, TELRIC capacity projections are based on the extent to which equipment will actually be utilized, and not based on a theoretical maximum.

The FCC further concluded that depreciation should reflect the true changes in economic value of an asset and the cost of capital should appropriately reflect the risks incurred by an investor. Thus, even in the presence of sunk costs, TELRIC-based prices are an appropriate pricing methodology. The FCC also determined that the forward looking cost of capital is equivalent to a normal profit.[15] Therefore, TELRIC complies with the TA96, in that it includes a reasonable profit.

The FCC also concluded, in its First Report and Order, that the price for UNEs should include a reasonable allocation of forward-looking joint and common costs.[16] Therefore, once the cost components and operating expenses of the TELRIC of an element are identified and summed, a specific level of shared (joint) and common costs are added (Tariffed Rate of Element = TELRIC + shared cost + common cost). Shared costs are defined as costs incurred to provide two or more UNEs but are unrelated to products and services that are not UNEs. Shared costs include, but are not limited to, expenses associated with product management, sales, and advertising. Common costs are defined as costs incurred to operate the business as a whole and are not directly associated with individual UNEs, products or services or any groups thereof. Common costs include, but are not limited to, network support expenses (i.e., engineering plant operations administration and network administration) and general support expenses (i e , motor vehicles, office equipment, and computers).

In Illinois, the Commission's Order in Docket Nos. 96-0486/0569 (Consolidated) designated the allowable "pool" of shared and common cost to be applied to UNEs. These costs originated from four sources within Ameritech: (i) Ameritech Information Industry Services, the business unit that is responsible for offering resale local exchange service and UNEs to wholesale customers; (ii) Network Services, the business unit responsible for managing Ameritech's telecommunications network which is used to provide both retail and wholesale services; (iii) Centralized Services, the business unit responsible for providing information technology, real estate, purchasing, etc. for Ameritech; and (iv) Corporate, Ameritech's headquarters which performs finance, legal, and investor relations functions for Ameritech.[17]

In addition, this Commission has made other significant conclusions regarding TERLIC. Specifically, in its order in Docket Nos. 96-0486/0569 (Consolidated), the Commission came to important conclusions concerning the cost of capital, depreciation, and utilization (or fill) factors with regard to Illinois-specific TELRICs. With respect to cost of capital, the Commission adopted a forward-looking cost of capital based on the incremental cost of debt and equity. This led to the Commission concluding that Ameritech should use a weighted average cost of capital of 9.52% in its TELRIC studies.[18] In comparison, the cost of capital used in LRSIC studies is 10.07%.

[15] First Report and Order, ¶700.
[16] First Report and Order, ¶672.
[17] Docket No. 96-0486, Ameritech Illinois Exhibit 4.0 (Broadhurst) at 4.
[18] Docket Nos. 96-0486/0569 (Consolidated), Order at 23.

As for depreciation, the Commission adopted forward-looking depreciation rates based on the economic lives of plant and equipment. Specifically, in Docket Nos. 96-0486/0569 (Consolidated), the Commission adopted, for TELRIC, the projected lives and future net salvage percentages underlying the depreciation rates prescribed for Ameritech by the FCC as set forth in the FCC's annual update of depreciation rates. These lives were deemed to be forward-looking and more reasonable than the economic lives adopted by the Commission in Docket No. 92-0448 for LRSIC studies. Since the economic lives determined in Docket Nos. 96-0486/0569 (Consolidated) are shorter than the economic lives determined in Docket No. 92-0448, Ameritech's LRSIC studies reflect longer economic lives than do its TELRIC studies. This results in higher depreciation rates for TELRIC, as opposed to LRSIC.

Finally, the Commission recognized that utilization factors, or fill factors, are a vital input into a cost study because they derive unit costs from total costs.[19] All else being equal, a lower fill factor would increase the unit cost of an element. The fill factors adopted for Illinois-specific TELRIC studies are "target fill factors." A target fill factor is based on the optimal usage level above which it is more effective to add plant and capacity rather than incur the costs associated with increased utilization of existing plant.[20] In short, if Ameritech does not add capacity once the target fill is reached, it is probably utilizing its resources inefficiently. In comparison, Ameritech's LRSIC studies are based on "usable capacity," which represents available capacity at an individual facility level.[21] This results in lower fill factors for TELRIC studies as opposed to LRSIC studies. According to Staff witness Phipps, the following provides a fill factor comparison between TELRIC and LRSIC for feeder and distribution and drop facilities:

	TELRIC (target fill)	LRSIC (usable capacity)
FEEDER		
Copper (aerial, buried, underground)	85%	90%
Fiber (aerial, buried, underground)	33%	33%
LiteSpan (COT, RT, and circuit cards)	90%	96%
DISTRIBUTION AND DROP		
Copper (aerial, buried, underground, building)	80%	85%

[19] Docket Nos. 96-0486/0569 (Consolidated), Order at 30.

[20] Ameritech witness Palmer identifies these additional costs as maintenance and network administration costs. Docket No. 96-0486, Ameritech Illinois Exhibit 3.1 (Palmer) at 40.

[21] According to Staff witness Phipps, usable capacity is determined based on a theoretical maximum usage level less capacity for defective circuits, administrative circuits, or other circuits which would render a capacity unavailable for service on a permanent basis. Ameritech witness Florence, however, relies upon 83 Ill. Adm. Code 791.20(n) to define usable capacity as the maximum physical capacity of the equipment or resource less any capacity required for maintenance, testing, or administrative purposes.

The TELRIC rates that were developed for unbundled loops include recurring and nonrecurring charges. Generally, the recurring charges recover costs that will recur throughout the economic life of the service and the investment in a facility, while nonrecurring charges recover costs which will occur only once during the economic life of a facility, such as the service order charge and line connection charge. Because no party has specifically objected to Ameritech's service order charge or line connection charge for CLECs, they will not be addressed further.

B. **LRSIC**

When ordering basic local service from Ameritech, a retail customer must pay initial nonrecurring charges and a monthly recurring charge. These charges are very similar in nature to what a CLEC pays to Ameritech to lease an unbundled loop. Regardless of whether a retail service is classified as competitive or noncompetitive, it must be priced above its associated LRSIC.[22] In short, the LRSIC is a price floor for the associated service. LRSIC is defined in 83 Ill. Adm. Code Part 791.20(a) as:

> the forward-looking additional cost(s) incurred by the telecommunications carrier to provide the entire output of a service, including additional resources such as labor, plant, and equipment. Long-run service incremental cost excludes any costs, including common costs, that would be incurred if the service is not produced.

The margin between the retail rate established by Ameritech and the LRSIC of the service is referred to as the contribution (Retail rate - LRSIC = Contribution). Factors such as profit, retail shared and common costs, and residual[23] are included within the contribution. The basic principles, methodologies, and cost models for Ameritech's LRSICs and TELRICs are the same. The major distinctions between the two methodologies is the different assumptions used for cost of capital, depreciation, and network utilization described above.

Ameritech's recurring retail rate for local service recovers the following cost components: (i) central office termination, (ii) local loop, (iii) administration, (iv) billing, (v) telephone number, and (vi) field connection. Material differences exist between the recurring costs incurred by Ameritech when providing service to CLECs as opposed to retail customers. Two notable factors lead to cost differences between CLECs and retail customers: the least cost technology assumed in the TELRIC and LRSIC studies and the central office termination. Although both TELRIC and LRSIC are designed to reflect the forward-looking, least-cost technology, the technology differs between the

[22] The flexibility that Ameritech has when setting its prices is determined by the classification of the service. If a service is classified as non-competitive, Ameritech's flexibility of setting the price is restricted by the price cap mechanism of the Alternative Regulation Plan. If a service is classified as competitive, Ameritech possesses the flexibility to set the price as it sees fit. If a service is truly competitive, market pressures should push Ameritech's rates downward towards LRSIC.

[23] The "residual" is an economic concept that, as applied to UNEs, was rejected by the Commission in Docket No. 96-0486. The residual will be discussed in further detail below.

two methodologies. According to Ameritech, the least-cost technology for Ameritech to provision service to a retail customer is via IDLC technology. This technology allows Ameritech to multiplex copper loops at a terminal, convert the analog signals to digital signals, and send the signals to the central office switch on a single fiber facility. However, since, according to Ameritech, an unbundled loop generally can not be "unbundled" in an IDLC environment, the least-cost technology to provision service to a CLEC is via UDLC technology. The cost differences between integrated and non-integrated facilities results in cost differences in the LRSIC and TELRIC studies.

As for the other difference in costs, the central office termination, IDLCs are terminated at the central office by a connection directly into the switch at a DSX cross-connect equipment bay. Non-integrated facilities, on the other hand, are terminated at the MDF. Therefore, due to the different technology assumptions between LRSIC and TELRIC studies, the termination cost component will differ as well.

The specific nonrecurring charges that a retail customer pays are the service order charge and line connection charge. These charges are very similar in nature to the nonrecurring charges that apply to UNEs, with certain exceptions. With regard to the former, there are two primary drivers that cause differences in the service order costs between requesting CLECs and retail customers. First, the Business Service Center ("BSC") that handles loop orders is separate from the Residence BSC that handles retail orders. This produces differences in cost. Second, while the TELRIC study assumes that requesting carriers order unbundled loops electronically, the LRSIC assumptions differ. This distinction yields different work activities, time, and probabilities of occurrence, which also produces differences in cost.

The line connection charge also has two primary drivers that cause differences in the charges between requesting CLECs and retail customers. First, the Unbundled Service Center ("USC") which coordinates the order activity for an unbundled loop has no retail counterpart. Second, work activities, labor time, and probabilities of occurrence differ for the two methods, which results in different costs.

C. Parties' Positions on Costs Recovered by TELRIC and LRSIC Rates

Each of the parties present different arguments on whether Ameritech's current rates recover any of its costs associated with special construction.

1. Ameritech's Position

According to Ameritech witness Florence, both the existing TELRIC and LRSIC studies are based on the principle that the existing switches and feeder routes in the network would be instantaneously and entirely reconstructed using the least-cost, most efficient, forward-looking, best available technology and provisioning processes. He testifies that this instantaneous network placement assumption does not permit costs for a variety of special construction situations that arise in the real world to be reflected.

Costs related to these special situations, he claims, are not included in the TELRIC and LRSIC studies. As an example, Mr. Florence states that the TELRIC cost studies did not take into account costs related to unbundling a loop where an unbundleable loop facility does not exist. He asserts that this situation can arise when the current service is provided via an RSU or IDLC. In addition, since the TELRIC studies for unbundled loops are based on a forward looking, least cost design using a meld of fiber and non-loaded copper facilities, Mr. Florence states that the costs related to the removal of load coils are not included in the cost studies. He further indicates that the costs reflected in the current TELRIC studies reflect only a normal distribution of "simple dispatch" situations. Costs for complex dispatches required, at times, to perform facility modification in excess of simple dispatch are not reflected in these TELRIC studies, according to Mr. Florence.

Mr. Florence uses loops to support his claim that the assumptions used in the TELRIC and LRSIC studies do not reflect the actual conditions and facilities in Ameritech's network. In a LRSIC study, he states that the assumption is that every loop served by fiber feeder facilities is integrated and served by 100% LiteSpan technology. In a TELRIC study, he indicates that the assumption for unbundled loops is that every loop served by fiber feeder facilities is non-integrated and served by 100% LiteSpan technology. In contrast to these assumptions, Mr. Florence claims that network facilities and conditions are much different in the real world. The existing network, he asserts, contains a mix of integrated, non-integrated, LiteSpan, and pre-LiteSpan technology. Neither TELRIC nor LRSIC studies, however, account for these real-world conditions since, according to Mr. Florence, the cost studies are based upon a least cost, forward looking network, not the existing network.

Ameritech agrees that the prices for UNEs should be set equal to the UNE's TELRIC, plus a reasonable portion of shared and common costs. Mr. Florence also concurs that the Commission rejected the inclusion of any residual cost component in UNE prices. He describes residual costs as representing the "gap" between overall retail revenues (or UNE revenues, in the case of UNEs) and the sum of the LRSIC rates (or TELRIC rates) plus shared costs plus common costs of Ameritech's retail services (or UNEs). Ameritech's residual will be discussed further in the context of discrimination below.

From a network perspective, Mr. Florence states that the components of a basic residence or business unbundled loop reflected in monthly UNE rates are the feeder, distribution, drop (including the NID), and termination on the MDF in the serving central office. In the cost studies approved in Docket Nos. 96-0486/0569 (Consolidated), he reports that the costs for the feeder reflect a combination of copper and fiber facilities. This combination, he adds, varies over the three density bands. The Ameritech Feeder Analysis Model (now enhanced to the Ameritech Facility Analysis Model) ("AFAM"), used to develop the feeder costs, begins with an inventory or snapshot of existing facilities and redesigns and resizes them, using forward-looking technologies and assumptions, according to Mr. Florence. For loops more than twelve thousand feet in

length, he states that fiber is used exclusively in the feeder. For loops less than nine thousand feet in length, he indicates that copper is used exclusively in the feeder. Between those lengths, Mr. Florence reports that the technology varies depending on the number of voice grade loops on the cable route.

For feeder provided via fiber, Mr. Florence testifies that the forward-looking design is based on the use of contiguous optical fiber in combination with non-integrated LiteSpan DLC transmission equipment. For those cases where the feeder is provided over copper facilities, he states that the forward-looking design reflects the use of 26 gauge, non-loaded contiguous copper facilities. Because the cost study assumes that the feeder facilities are contiguous, Mr. Florence claims that any costs incurred in special construction situations, such as additional splicing work necessary to rearrange the feeder facilities in order to provide this contiguous path, are over and above the monthly costs developed in the TELRIC study.

Mr. Florence testifies that the TELRIC study includes costs for the COT, RT, and plug-in circuit cards used in each terminal that allow the unbundled loops to be terminated on a non-integrated basis. He adds that the costs for the cabinet or hut housing this equipment are also included. These costs, Mr. Florence maintains, are based on Ameritech's existing network configuration and existing customer locations; and do not attempt to account for growth or expansion of the network. The plug-in circuit cards are sometimes referred to as C-POTS and R-POTS cards, which plug into the COT and RT, respectively. Mr. Florence states that because one C-POTS or R-POTS card can accommodate up to four basic business or residence unbundled loops, each loop is assigned one-fourth of the cost of each card.

With only one exception, the LRSIC study for a loop used for basic local exchange service reflects the same LiteSpan equipment and fiber/copper meld as the unbundled loop, according to Mr. Florence. For retail services such as basic local exchange services, Mr. Florence repeats that the forward-looking LiteSpan equipment configuration is based on the use of IDLC technology. In this situation, he states, the connection to the central office switch is made at a digital level and integrated directly into the switch. The integrated arrangement, he contends, is the one that is normally used to serve retail customers; which is accomplished by using a different plug-in card at the LiteSpan COT. To unbundle a loop that is being served in this manner, Mr. Florence maintains that additional work needs to be performed. He argues that existing UNE rates do not include the costs of the additional construction associated with switching the plug-in cards to go from an integrated to a non-integrated configuration. Mr. Florence attributes the additional construction costs to labor and engineering necessary to change the cards. He also contends that the costs of providing a new COT or RT where no spare facilities are available are not included in TELRIC rates.

In the context of the distribution and drop components, Mr. Florence relates that TELRIC assumes that they are 100% 26 gauge contiguous non-loaded copper facilities.
The plant mix (buried, underground, aerial), cable sizes, and lengths reflected in TELRIC are based on data obtained from a sample of loops taken at a "snapshot in time." according to Mr. Florence. He contends that this means that the unbundled loop study, although it assumes the use of only forward-looking technology, is also based upon existing facility routes to existing customer premises. As is the case for the feeder, he insists that any costs incurred for additional construction, such as additional splicing work necessary to provide a contiguous path to a new location or an existing location requiring new facilities, are not reflected in the present TELRIC study. Mr. Florence states that the LRSIC study for the loop portion of basic local exchange service reflect the same distribution and drop characteristics as those reflected in the TELRIC study.

Mr. Florence indicates further that the LRSIC study also includes a cost for the termination of a loop in the central office. The costs used for loop termination in connection with basic local exchange service, he maintains, however, are not the same as those developed for unbundled loops. For a loop used in a retail service, such as basic local exchange service, he once again states that loops served by fiber facilities are assumed to use an IDLC and not terminate on the MDF. Instead, Mr. Florence relates they are connected directly into the switch at a DS-1 level (24 voice-grade channels) at a DSX cross-connect equipment bay.

In contrast, for unbundled loops served by fiber facilities, he repeats that TELRIC assumes that LiteSpan non-integrated DLC is used. As a result, he states, termination on the MDF is required for an unbundled loop 100% of the time. The existing TELRIC study for unbundled loops does not include any additional costs for those instances where integrated loops, which are already terminated on a DSX cross-connect bay, must be un-integrated and moved to the MDF to make them available on an unbundled basis, according to Ameritech.

Turning to RSUs, it was previously noted that a host-remote umbilical connects a RSU to its host switch. With regard to that umbilical, Mr. Florence claims that neither TELRIC nor LRSIC studies include any of the costs associated with the umbilical. According to Mr. Florence, the TELRIC study only takes into account those costs incurred from the customer location to the RSU. When a CLEC is collocated at the host rather than the remote switch, Mr. Florence states that a discrete path is necessary to make such a loop available on an unbundled basis. In those instances, he testifies that Ameritech incurs additional costs to extend the loop from the remote location to the host switch. He contends that examples of additional costs include the construction of a parallel copper facility from the remote to the host switch or the costs of placing both the RT portion of a DLC system at the remote location and the related COT at the host central office switch, plus the necessary plug-in cards. Any necessary fiber transport facility used to connect the RT and COT, he notes, would add additional

costs. Mr. Florence claims that none of these costs are reflected in the existing TELRIC study, which is why Ameritech seeks to assess special construction charges to recover these costs.

In addition to the network components described above, Mr. Florence testifies that there are other items included in the monthly costs for an unbundled loop. Expenses related to maintenance, marketing, billing system development, methods and procedures development unique to the provision of unbundled loops, and reports processing are also included in the monthly costs, according to Mr. Florence. Additionally, he asserts that the monthly costs include certain forward-looking shared and common overhead loadings. These specific expenses are unique to unbundled loops, and therefore, he contends, are not included in the LRSIC cost study for the loop portion of basic local exchange service. Mr. Florence further claims that the monthly costs for an unbundled loop include the non-volume sensitive and the forward-looking shared and common cost loading approved by the Commission. Finally, he avers that the monthly costs for both bundled and unbundled loops include, on an amortized basis, the field installation costs incurred in simple dispatch situations.

Ameritech insists that the existing TELRIC study methodology does not account for any growth in the feeder, distribution, or drop portions of the unbundled loop for new end users. The TELRIC starting point is a "snapshot in time" of the network, according to Mr. Florence, and is based on existing routes and existing customer locations. He argues that no attempt was made to account for changes that might result from new customer locations that did not exist at the time of the cost study, or from any additions to, or rearrangement of, that network.

Mr. Florence also maintains that since the TELRIC study is based on a forward looking meld of fiber optic and non-loaded copper facilities, Ameritech's costs associated with loop conditioning are not included in the TELRIC rates. In the future, he testifies that Ameritech intends to recover loop conditioning costs through a separate nonrecurring TELRIC based charge. On April 5, 2000, Ameritech filed with the Commission cost studies geared toward that end, in compliance with the FCC merger conditions (V), paragraph 21, appendix C. In addition, as noted earlier, Ameritech witness Suthers is proposing that the alleged costs associated with complex dispatch situations be melded into the recurring or nonrecurring unbundled loop costs in Docket No. 98-0396 since they are supposedly not recovered in existing TELRIC rates.

Mr. Florence also points out that Ameritech offsets its booked expenses with special construction revenues received in accordance with Part 32.5999(g) of the FCC's Uniform System of Accounts, which states that "reimbursements of actual costs incurred in conjunction with joint operations or projects, repairing plant due to damages by others, and obligations to make changes in telecommunications plant shall be credited to the accounts originally charged." He further states that Ameritech offsets the booked construction costs with special construction revenues received in

accordance with Part 32.2000(a)(2). Mr. Florence reports that Part 32.2000(a)(2) states that "Contributions in the form of money or its equivalent toward the construction of telecommunications plant shall be credited to the accounts charged with the cost of such construction. Amounts of nonrecurring reimbursements based on the cost of plant or equipment furnished in rendering service to a customer shall be credited to the accounts charged with the cost of the plant or equipment."

In response to assertions that Ameritech's special construction charges constitute double recovery of its costs, Mr. Suthers points to paragraphs 382 and 384 of the FCC's First Report and Order and paragraphs 190 through 194 and footnote 418 of the UNE Remand Order for the proposition that Ameritech is entitled to recover its costs associated with line conditioning and unbundling IDLC and RSU facilities. He further observes that Terry Murray, who testified on behalf of Rhythms and Covad, agrees that the costs of loop conditioning are not included in Ameritech's cost studies because, for example, load coils are not part of Ameritech's forward-looking cost structure. From the context of her testimony, Mr. Suthers infers that Ms. Murray intends that the same arguments apply to the costs of unbundling loops from integrated facilities.

Mr. Florence also takes issue with Mr. Phipps' argument that Ameritech is already recovering the cost of removing defective circuits within its fill factor assumptions. First, Mr. Florence argues that Mr. Phipps' definition of usable capacity, as represented on page 12 of his direct testimony, incorrectly interprets the definition of "usable capacity" as set forth in Section 791.20(n) of the Commission's rules. Mr. Phipps, he claims, has erroneously equated "maintenance" terminology with "defective circuits." In Mr. Florence's opinion, the fill factors described by Mr. Phipps account for additional investments in feeder and distribution facilities required for needs related to areas such as maintenance, testing, and administrative purposes. These facility investments do not include the additional labor costs for clearing defective pairs, according to Mr. Florence.

Mr. Florence further objects to Staff witness Phipps' allegation that Ameritech is double recovering costs for cable splicing when it assesses special construction charges for this activity. As will be discussed further below, Mr. Phipps claims that Ameritech is already recovering such costs since they are accounted for in its unbundled loop cost study by the use of installation factors. Mr. Florence contends that in TELRIC studies, installation factors are applied to the material investment associated with the forward looking, least cost network equipment and facilities used to provision, for example, unbundled loops. To the extent the TELRIC assumptions exclude the costs of certain activities (e.g., loop conditioning or unbundling from integrated facilities), Mr. Florence maintains that the installation factors also exclude the same costs.

In addition, Ameritech argues that Staff's position on cost recovery for IDLC/RSU unbundling should be rejected because it is inconsistent with the position that Staff took

in Docket No. 99-0525. In that docket, Ameritech states that Staff supported Ameritech's recovery of the labor costs required to provision an unbundled loop from an integrated facility. According to Ameritech, both Mr. Graves and Mr. Phipps testified that when an IDLC or RSU must be modified by providing a new COT or RT, separate charges in that instance would be consistent with item C of Ill. C. C. No. 20, Part 2, Section 5, Original Sheet No.1 since such situations may necessitate a routing of facilities other than that which Ameritech would have normally done. In the present docket, however, Ameritech relates that Mr. Graves has taken the position that because routing around the IDLC or RSU is the only way to provide an unbundled loop in some situations, there is no routing other than what Ameritech would normally have done to provide an unbundled loop. Mr. Suthers counters that construction of a new COT or RT is not "normal" routing for anyone, whether that would be a retail customer or a purchaser of an unbundled loop.

As for Mr. Starkey's assertion that UNE rates should be based on an IDLC, as opposed to UDLC, network, Mr. Florence contends that such a network would not function because unbundled loops can not be extracted from an IDLC system. The suggestion that GR-303[24] compatible Next Generation IDLC ("NGIDLC") may be used to provision unbundled loops from an IDLC system is irrelevant, according to Mr. Florence, because Ameritech does not intend to deploy such technology in its region in the foreseeable future. Mr. Florence suggests that the NGIDLC that SBC and Ameritech intend to install under Project Pronto will not be GR-303 compatible and that "NGIDLC" is merely a generic term that encompasses a whole host of existing and developing DLC technologies. The thrust of Project Pronto, he states, is to simply offer a cost effective way to provide xDSL services. Later, however, Mr. Florence admitted that Ameritech is installing GR-303 compatible NGIDLCs as part of Project Pronto.

2. Staff's Position

Staff witness Phipps relies upon the testimony of Ameritech witness Palmer in Docket No. 96-0486 to explain how Ameritech developed its TELRIC rates for unbundled loops. Mr. Phipps reports that Ameritech first identified the resources (i.e., material, software, labor) required to satisfy demand for particular services. Investments in resources that were to be used over a long period of time (i.e., outside plant), he states, were capitalized; thus, converting the investment to annual charges (consisting of depreciation, cost of capital, and income taxes). Investments in resources that involved a one-time cost (i.e., labor required to process a service order)

[24] Staff witness Graves describes GR-303 as a generic standard for transporting signals over an access system like Ameritech's DLCs. In the past, he reports, such standards were unique to each manufacturer of DLC equipment. This open standard allows manufacturers to use the same standard and allows different manufacturers' equipment to communicate with each other, according to Mr. Graves. He states that GR-303 are Generic Requirements developed by Telcordia Technologies. According to Telcordia Technologies, the GR-303 family of requirements specifies a set of NGIDLC generic criteria that creates an integrated access system supporting multiple distribution technologies and architectures, and a wide range of services on single access platform. For additional information on GR-303, see Staff Ex. 1.2, p.9.

were converted to nonrecurring expenses, according to Mr. Phipps. Other costs (i.e., maintenance costs), he observes, were converted to recurring operating expenses. Mr. Phipps testifies that this process resulted in Ameritech developing TELRIC-based recurring and nonrecurring rates for an unbundled loop. The recurring rate, he relates, consists of the capital investment and recurring operating expenses (as well as a shared and common cost loading, as previously discussed), while the nonrecurring rates consist of one-time costs.

More specifically, to develop the recurring TELRIC rate for an unbundled loop, Mr. Phipps asserts that Ameritech relied heavily on its loop cost model, better known as AFAM. The purpose of AFAM, he maintains, is to create a model of a simplified, efficiently run network based on forward-looking engineering practices, guidelines, technologies, and investments. According to Mr. Phipps, it develops average network investments and characteristics using forward-looking, optimally re-designed feeder and distribution routes.

Mr. Phipps contends that facility investments in AFAM are adjusted to include the cost of installation by applying installation factors and therefore represent total installed investments. Installation factors, he states, are cost study parameters that are taken from ACAR. This should not only recover the labor cost of installing the cable, but should also recover the cost of material to install the cable, such as the cross-connects between the drop and the NID and between the distribution and drop portions of the network, according to Mr. Phipps. He then states that Ameritech sums the total installed costs for the entire route and all routes (according to Bands A, B, or C). Mr. Phipps testifies that this total is divided by the quantity of circuits to develop an average investment by account by band. To yield annual costs, he reports that the investments are multiplied by an annual charge factor ("ACF")[25] to capture factors such as cost of money, income tax, depreciation, ad valorem taxes, maintenance, power, and floor space. Mr. Phipps adds that ACFs, under TELRIC, are generally higher than LRSIC ACFs due to the different assumptions for cost of money, economic lives, cost of removal, and salvage.

In short, Mr. Phipps argues that the feeder module of AFAM computes costs associated with COT common equipment, feeder cable (aerial, buried, underground), RT common equipment, and copper extension feeder. The distribution and drop module of AFAM, he asserts, computes costs associated with the SAI, copper distribution cable (aerial, buried, underground), interior terminal or the drop, and NID.

But Mr. Phipps acknowledges that the feeder and distribution and drop modules of AFAM do not recover all costs of the unbundled loop; external adders are added to AFAM modules to recover additional loop costs. He testifies that these external adders include costs associated with the following: MDF and protector, COT and RT plug-in

[25] Mr. Phipps states that annual charge factors are derived from the ECONS/CAPCOST models.

cards, central office entrance facility, huts and cabinets for RT, structures (poles and conduits) and DSX-1 cross connect (for a DS1).

By relying on a proprietary Ameritech cost summary depicting the TELRIC components of an unbundled analog loop in Access Area C, Mr. Phipps attempts to provide a specific detailed example of the cost components that are included in Ameritech's recurring TELRIC rate for such an unbundled loop.[26] As he previously noted, a majority of the feeder investment is derived by using AFAM. Mr. Phipps indicates that the feeder averages investments to reflect a combination of fiber and copper as well as averages investments to account for aerial, buried, and underground cable.[27] He further states that feeder also includes costs for the COT and the RT.[28] The LiteSpan plug-in cards for the COT and RT are also added into the TELRIC rate,[29] as are cost for supporting structures (poles and conduit),[30] according to Mr. Phipps.

With regard to the distribution and drop component, Mr. Phipps testifies that a majority of the investments for distribution and drop are also developed in AFAM. Although copper cable is assumed throughout the distribution and drop in Access Area C, he asserts that average investments are used to account for the following types of cable: underground, buried, aerial, and building.[31] Mr. Phipps further argues that the distribution and drop not only recovers the cost of the cable, but also includes costs associated with the SAI and the copper drop and NID at the customer's premises. He adds that the distribution and drop includes a cost element for supporting structures (poles and conduit).[32] As for MDF and protector investment, Mr. Phipps states that associated costs are included in TELRIC as developed in the Switching Cost Information System.[33]

Ameritech's proprietary cost summary also includes four additional loop expense items: report process and maintenance expense, billing expense, field connection expense, and other expenses. Mr. Phipps states that report processing and maintenance[34] is designed to recover the cost of processing trouble reports and the additional maintenance labor costs associated with each trouble report. He adds that the additional maintenance involves the Central Office and Unbundled Service Center workgroups. The billing expense[35] component, according to Mr. Phipps, was included to recover the billing expense incurred by Ameritech when provisioning an unbundled loop to a CLEC. He testifies that the third expense, field connection expense,[36] is

[26] The cost summary has been marked as Proprietary Attachment 1 and attached to Staff Ex. 2.0.
[27] Staff Ex. 2.0, Proprietary Attachment 1, lines 1-6.
[28] Staff Ex. 2.0, Proprietary Attachment 1, lines 9-10.
[29] Staff Ex. 2.0, Proprietary Attachment 1, line 11.
[30] Staff Ex. 2.0, Proprietary Attachment 1, lines 7-8.
[31] Staff Ex. 2.0, Proprietary Attachment 1, lines 18-21.
[32] Staff Ex. 2.0, Proprietary Attachment 1, lines 22-23.
[33] Staff Ex. 2.0, Proprietary Attachment 1, line 26.
[34] Staff Ex. 2.0, Proprietary Attachment 1, line 29.
[35] Staff Ex. 2.0, Proprietary Attachment 1, line 30.
[36] Staff Ex. 2.0, Proprietary Attachment 1, line 31.

meant to recover costs associated with the Engineering Work Order ("EWO") and Customer Provisioning and Maintenance ("CP&M") work groups. He states that the EWO portion recovers the cost of a field visit and dispatching a field technician for field connection activities, and the CP&M portion recovers the cost of assisting with outside plant facilities. Mr. Phipps asserts that the other expenses[37] component consists of billing system programming (outside contractor), methods and procedures (development training for network and service center), and integrated testing.

Mr. Phipps concludes that his testimony and attachments thereto demonstrate that every portion of the unbundled loop facility is included within the TELRIC rate. These costs, he argues, represent installed investments that connect the entire route from the central office to the customer's premises.

As indicated above, in those instances where a CLEC requests an unbundled loop served via IDLC/RSU and no spare copper loops are available, Ameritech argues that it is entitled to charge for special construction to provision the unbundled loop. Relying on his aforementioned analysis, Mr. Phipps disagrees and begins his double recovery inquiry by observing that there are two possible scenarios in such instances: either the IDLC/RSU is utilized in conjunction with COT technology, or it is not. The key difference between these two scenarios, he avers, is that if COT technology is utilized, loops can be provisioned by utilizing "plug-in" cards at the RT and COT. If COT technology is not utilized, however, Mr. Phipps understands that loops may be unbundled only by a line station transfer or building separate non-integrated facilities.

If COT technology is present, Mr. Phipps maintains that Ameritech should be able to provision a loop to a CLEC by segregating a loop utilizing the plug-in cards. In light of Ameritech's position that special construction charges should apply when plug-in cards are not present in the RT and COT, however, Mr. Phipps contends that double recovery is still a concern but refrains from addressing plug-in cards in the context of IDLCs and RSUs since plug-in cards fall into Ameritech's category of complex work, which he discusses later. On the other hand, if COT technology is not present and no spare copper exists for a requesting carrier, Mr. Phipps states that Ameritech will attempt a line station transfer. If a line station transfer can not be performed, he asserts that Ameritech would assess special construction charges on the CLEC to recover the costs of building and installing an entirely new non-integrated system for the CLEC. Such charges, Mr. Phipps insists, are not appropriate.

According to Staff witness Phipps, Ameritech should not be allowed to recover the cost of building and installing an entirely new non-integrated system for the CLEC for several reasons. First, Mr. Phipps argues that Ameritech would be double-recovering the costs of the new system by recovering the entire cost in an up-front payment and, as described above, continuing to assess monthly recurring charges on all customers using the facility to recover the cost of the facility over time. In addition,

[37] Staff Ex. 2.0, Proprietary Attachment 1, line 32.

by Ameritech forcing CLECs to incur costly up-front charges, Staff asserts that it is effectively removing UNEs as a cost efficient way to compete with Ameritech. Mr. Phipps further states that this problem is exacerbated by the fact that Ameritech could use any spare capacity on the new facility to provision service to other CLECs as well as its own retail customers. As an example, he notes that the capacity of a LiteSpan 2000 (the brand-name of the multiplexing equipment Ameritech utilizes) system is 2,016 voice-grade circuits. Therefore, he continues, if Ameritech constructed a new LiteSpan system for a CLEC for the purposes of provisioning 16 unbundled loops, Ameritech could use the remaining 2,000 voice-grade circuits to provision service to its own customers (retail or wholesale). In short, Mr. Phipps observes that although the first CLEC would have already paid for the entire system in an initial up-front payment, Ameritech would retain possession of the equipment and manage it as it sees fit.

One likely way in which Ameritech could provision a loop to a CLEC through the construction of new non-integrated facilities is by installing a COT and RT. Mr. Phipps rejects Mr. Suthers' argument that Ameritech's cost studies only account for existing COT and RT facilities, and that therefore special construction charges are appropriate in such situations. As illustrated by his earlier testimony, Mr. Phipps maintains that the costs of a COT and RT are already being recovered in the TELRIC loop rate. If Ameritech must build additional COT and RT facilities, he avers that the TELRIC rate will allow the CLECs that lease loops from that facility to compensate Ameritech for such facilities over time, rather than incurring a costly up-front charge; which is the exact purpose of TELRIC based rates, according to Mr. Phipps.

As for loop conditioning, while Mr. Phipps finds Ameritech's method for assessing special construction charges for loop conditioning troublesome, he testifies that he is not aware of any recovery of loop conditioning costs through the UNE rate for an unbundled loop. Mr. Graves testifies that loop conditioning would constitute routing for facilities other than that which Ameritech would normally use to provide service. Specifically, he states that loop conditioning falls under item C of Ameritech tariff Ill. C. C. No. 20, Part 2, Section 5, Original Sheet No. 1.

With regard to Ameritech's list of complex work activities, Mr. Phipps disagrees that these costs are no longer within the scope of this proceeding simply because Ameritech now intends to include the allegedly unrecovered associated costs in its recurring TELRIC rates for UNEs. As for line station transfers, Mr. Phipps testifies that Ameritech is essentially charging CLECs for costs incurred to convert the "real world" network (integrated) to the least cost, most efficient network assumed in the TELRIC study (non-integrated). Mr. Phipps states that such a charge is contrary to the intent of the Commission's order in Docket No. 99-0525. Following Ameritech's reasoning a step further, he asserts that retail customers should also bear a portion of the cost of the line station transfer because a retail customer is also being converted from the "real world" network (non-integrated) to the least cost, most efficient network assumed in the LRSIC study (integrated). As it does not appear that Ameritech charges retail

customers for line station transfers, Mr. Phipps argues that it should not be allowed to charge CLECs for this activity.

Regardless of the recovery mechanism, Mr. Phipps also maintains that Ameritech should not be allowed to recover additional costs of defective loop recovery from a CLEC because these activities should occur as part of the routine maintenance of plant equipment, which is already recovered in the TELRIC rate. ACAR, he observes, explains that maintenance costs are incurred "in order to keep telephone plant and equipment resources in usable condition."[38] Defective pair recovery, Mr. Phipps insists, should be included in the maintenance expense because a defective pair is not in usable condition. As he explained previously, investments are multiplied by annual charge factors to account for, among other things, maintenance expenses. This, in turn, is included in the annual cost of the facility, according to Mr. Phipps. He further notes that Ameritech's fill factors, in part, account for defective circuits by assuming levels lower than the maximum fill.[39] Since a lower fill increases the unit cost of an element, Mr. Phipps contends that Ameritech is recovering the cost of removing defective circuits from the network within its fill factor assumptions. Therefore, he concludes, any attempt to recover the cost of defective pair recovery outside the current TELRIC rate for a loop would constitute double-recovery.

Moreover, Mr. Phipps asserts that the FCC has recognized that CLECs should not be responsible for maintaining the ILEC's facilities. In paragraph 268 of its First Report and Order, Staff witness Phipps relates that the FCC stated, "the ability of other carriers to obtain access to a network element for some period of time does not relieve the incumbent LEC of the duty to maintain, repair, or replace the unbundled network element." Therefore, Mr. Phipps believes that it is the ILECs' duty to not only repair a network element, but to replace it if necessary.

In response to Mr. Florence's argument that he has incorrectly interpreted the definition of usable capacity, Mr. Phipps first asserts that since Part 791, the Cost of Service Rules, apply to LRSIC studies as opposed to TELRIC studies, his interpretation of the Cost of Service Rules is important only in comparing the fill factors used in TELRIC studies to those used in LRSIC studies. With that said, Mr. Phipps then takes issue with Mr. Florence's criticism that he has "erroneously equated 'maintenance' terminology with 'defective circuits;'" criticism which is more appropriately directed at Ameritech itself, according to Mr. Phipps. Mr. Phipps indicates that his interpretation of usable capacity came directly from ACAR which states that, "Usable Capacity represents available capacity at an individual facility level. This is technical capacity *minus defective circuits, administrative circuits and/or* any other type of circuits which would render a capacity unavailable for service on a permanent basis."[40] ACAR, he

[38] ACAR, Tab 17, Description.
[39] Staff indicates that LRSIC fill factors are based on usable capacity, which is the theoretical maximum fill minus defective circuits minus administrative circuits minus other circuits, while TELRIC fill factors are based on "target fill," which is lower than usable fill.
[40] See Proprietary Attachment 1 to Staff Ex. 2.2.

continues, also defines maintenance expenses as costs "incurred in order to keep telephone plant and equipment resources in usable condition."[41] Since defective loops can not be assigned to a CLEC, Mr. Phipps asserts that the loops are not in usable condition. Therefore, based on Ameritech's own interpretations of "usable capacity" and "maintenance costs," Mr. Phipps avers that the cost incurred with defective loop recovery should be included in either the maintenance expense factor applied to the facility investments, or the cost of spare capacity inherent in the fill factors applied to derive unit costs from total costs (but not both). Additionally, since LRSIC fill factors are set above TELRIC fill factors, Mr. Phipps states that TELRIC fill factors provide for a greater amount of spare capacity than do LRSIC fill factors (and CLECs pay for this extra capacity through relatively higher TELRIC rates).

With regard to the third type of complex work, Staff contends that Ameritech's proposal to assess additional charges for plug-in cards is flawed. As indicated above, Mr. Phipps avers that Ameritech's TELRIC rate for an unbundled loop includes the cost of plug-in cards, as well as the installation cost. By applying the in-plant/investment factor to the price of the plug-in card, Mr. Phipps maintains that Ameritech converts the material price into installed component unit investments (material price plus all costs necessary to make the equipment operational). This includes engineering, installation, and supply expenses, among other costs, according to Mr. Phipps. Thus, he states that it appears that Ameritech is recovering all costs associated with plug-in cards in its TELRIC rates. He argues that assessing additional charges for plug-in cards as well as installing them is inappropriate and constitutes double-recovery; Ameritech should simply install the plug-in card at no additional cost.

As for the fourth type of complex work, Staff initially stated that it is conceivable that Ameritech might have to perform a wire out of limits for a retail customer, and might therefore assess special construction charges on that retail customer pursuant to item C on Ill. C. C. No. 20, Part 2, Section 5, Original Sheet No. 1. Assuming that such a charge on retail customers is proper under its tariff, Mr. Phipps observed, however, that Ameritech intends to meld this cost into the TELRIC rate for CLECs. Since Ameritech intends to recover this cost differently from CLECs and retail customers, Staff found this proposal problematic. Mr. Phipps argues that it is preferable that special construction charges for wire out of limits remain an up-front nonrecurring TELRIC based charge for CLECs. Even if this problem were resolved, Mr. Phipps would still be concerned that Ameritech would not seek to assess special construction charges for wire out of limits on CLECs and retail customers in similar situations. If his concerns were resolved to his satisfaction, Mr. Phipps proposed a nonrecurring TELRIC based charge of $103.33 for each instance where Ameritech must perform wire out of limits.[42] Following the hearing, however, Staff changed its position after Ameritech witness Florence offered additional information under cross-examination on wire out of limits. Staff reports that Mr. Florence stated that it was his understanding that Ameritech performs a wire out of

[41] See Proprietary Attachment 2 to Staff Ex. 2.2.
[42] See Proprietary Attachment 10 to Staff Ex. 2.0 and pages 12-14 of Staff Ex. 2.2 for the development of Mr. Phipps' charge for wire out of limits.

limits when the customer's serving terminal runs out of excess capacity." (Tr. at 485). Since Staff does not view this type of instance as meeting the requirements of Ill. C. C. No. 20, Part 2, Section 5, Staff asserts that Ameritech should not be allowed additional cost recovery above what is afforded in its current TELRIC rates, which already recover the cost of a contiguous loop from the central office to the customer's premises. Staff also claims that Ameritech failed to provide proof that it would, in the future, assess special construction charges for wire out of limits on a similarly situated retail customer. In any event, Mr. Phipps observes that it is doubtful that wire out of limits occurs very frequently since of the total of 1,949 known special construction instances shown in Proprietary Attachment 9 to Staff Ex. 2.0,[43] only 12 (0.62%) of them included wire out of limits.

Mr. Phipps does not find the next type of complex dispatch activity, break and connect through, to be very different from simple dispatch activities which Ameritech performs at no additional charge. Ameritech's own description, he contends, suggests that it charges CLECs for connecting them to a vacant facility (a facility that is not currently in use). According to the Ameritech policy utilized when this investigation was initiated, Mr. Phipps recalls that Ameritech would not assess special construction charges for simple dispatch situations, or situations "in which all loop components exist and are terminated at the appropriate outside plant cross-connect interfaces so the components can be readily assembled via a simple dispatch by an Ameritech technician." This description, according to Mr. Phipps, includes the activities performed in the break and connect through. Although he is unclear why Ameritech now proposes to recover these costs through the TELRIC rate, he nevertheless urges the Commission to reject Ameritech's proposal pertaining to this complex dispatch situation.

The final type of complex work activity is installing pair gain devices. Mr. Phipps finds Ameritech proposal to include the costs of equipment and installation of the device within the nonrecurring TELRIC rate for a UNE loop problematic for several reasons. First, after a CLEC pays for installing the device, he asserts that it is possible that Ameritech could use the spare copper loops to provision service to other CLECs or its retail customers; thereby, forcing CLECs to pay for expanding Ameritech's copper capacity. Further, Mr. Phipps maintains that Ameritech will continue to recover the revenue from each line added by the pair gain device. If a CLEC pays for Ameritech to construct a six line pair gain device and utilizes one line, he points out that Ameritech could utilize the remaining five lines as it sees fit. Additionally, Mr. Phipps observes that Ameritech will have six revenue producing lines, rather than one, at no additional cost to itself. He urges the Commission to reject Ameritech's proposal to recover the cost of pair gain equipment or installation through the TELRIC rate.

In addition to the three categories of activities which Ameritech has identified as causing it incur additional costs not recovered by TELRIC rates, Mr. Phipps notes a fourth type of activity which does not fit within any of Ameritech's categories: placing

[43] Mr. Phipps notes that the earliest recorded special construction assessment on Proprietary Attachment 9 to Staff Ex. 2.0 is dated January 8, 1998 while the most recent is dated January 6, 2000.

and splicing additional cable. Mr. Phipps states that placing and splicing additional cable appears on Proprietary Attachment 9 to Staff Ex. 2.0 162 times, representing 8.3% of the 1,949 known special construction assessments. With that said, he believes that it should be a very rare occurrence that Ameritech runs out of cable capacity to serve customers. To support this assertion, Mr. Phipps first observes that fill factors, under TELRIC, assume that the facilities are being utilized at the optimal usage level, as opposed to a theoretical maximum. Beyond this point, he avers, it would be more efficient to add additional capacity rather than continue to use existing plant. Therefore, according to Mr. Phipps, Ameritech should, theoretically, never run out of spare cable capacity. If Ameritech reaches the point where no spare capacity exists, he contends that Ameritech must be utilizing its network inefficiently. In addition, since installation factors are applied to cable investments to determine a total installed investment, he maintains that no additional charges for splicing should be necessary because it is already being recovered. Furthermore, as he explained earlier, CLECs pay a TELRIC rate to recover the cost of a contiguous loop from the central office to the customer premises; when CLECs pay special construction charges for Ameritech placing and splicing additional cable to connect the CLECs customer to the central office and then pay a monthly recurring rate to Ameritech for continued use of the facility (a contiguous path from the central office to the customer's premises), Mr. Phipps argues that Ameritech is double-recovering the cost of the cable and splicing.

In response to Mr. Florence's criticisms of his position on cable placing and splicing, Mr. Phipps notes as an initial matter that Mr. Florence disagrees with only a portion of his testimony on this issue. The portion of his direct testimony to which Mr. Florence refers, Mr. Phipps observes, not only asserts that Ameritech should not charge for the splicing of additional cable, but should not charge special construction for the cable itself. As he described in his direct testimony, Ameritech should not be allowed to charge for additional cable because CLECs already pay a TELRIC rate that includes the cost of spare cable capacity. Assessing special construction charges for additional cable, therefore, would result in Ameritech double-recovering these cable costs, according to Mr. Phipps.

Although he does not question Mr. Florence's characterization of how installation factors are applied to investments, Mr. Phipps states that Mr. Florence's testimony avoids the true issue at hand. Mr. Phipps asserts that the special construction instance of placing and splicing additional cable does not pertain to loop conditioning or unbundling an integrated facility, as Mr. Florence's testimony suggests. Rather, Mr. Phipps argues that these special construction instances refer to costs incurred in placing and splicing additional cable that are already recovered through the monthly recurring rate for a loop. As examples of such instances, Mr. Phipps references items 1 and 5 on Proprietary Attachment 9 to Staff Exhibit 2.0. He reports that special construction instance number 1 is for "placing and splicing UG [underground] and aerial cable" while special construction instance number 5 is to "place 100' of 16 pr. aerial service wire for F-2 [or distribution] cables." Relying on Proprietary Attachment 1 to Staff Exhibit 2.0, Mr. Phipps avers that Ameritech's monthly

recurring cost for a loop includes costs for underground and aerial feeder and distribution and drop cables. Additionally, as he explains in his direct testimony, and as Mr. Florence acknowledges, Mr. Phipps states that installation factors have been applied to the cable investments to derive total installed costs (including splicing) for this cable. Thus, Mr. Phipps repeats, CLECs already pay for placing and splicing additional cable, and assessing special construction charges for either the cable or the splicing would constitute double-recovery.

As for Ameritech's claim that federal law entitles it to recover the costs governed by its special construction policy, Staff agrees with Ameritech that, pursuant to federal law, it is entitled to recover certain costs that are caused by CLECs. Staff argues, however, that the recovery of these costs is limited by federal law, the Act, the Commission's Order in Docket 96-0486, and Ameritech's special construction tariff. Staff reports that the relevant federal policies governing nonrecurring expenses are found in paragraphs 745 through 751 of the FCC's First Report and Order. Those paragraphs, according to Staff, lay out three principles for nonrecurring charges: 1) nonrecurring charges should not recover recurring costs such as income taxes, maintenance expenses, and administrative expenses;[44] 2) nonrecurring charges should not double recover costs;[45] and 3) nonrecurring charges should be imposed equitably among entrants.[46]

Paragraph 750 of the First Report and Order also, Staff reports, places on the Commission the burden of ensuring that Ameritech does not recover nonrecurring costs twice. Staff argues that because it has demonstrated that certain of Ameritech's special construction charges represent costs already recovered through TELRIC rates, the Commission should adopt Staff's position. Staff notes that Ameritech has even conceded that it was double-recovering the cost of plug-in cards because it was recovering those costs through the TELRIC rate as well as through special construction charges. (Tr. pp.475-476 and 490). For the exact same reason, Staff asserts that Ameritech double-recovers the cost of a COT and RT if it assesses special construction charges for those facilities as well as includes them in the TELRIC rate.

Concerning Ameritech's claim that unbundling a loop in an IDLC/RSU environment and loop conditioning are equivalent and should be treated similarly, Staff contends that prior to making this claim, Ameritech defined the term "loop conditioning," as the "removal from the loop of any devices that may diminish the capability of the loop to deliver high-speed switched wireline telecommunications capability, including DSL. Such devices include, but are not limited to, bridged taps, low pass filters, and range extenders." (Ameritech Initial Brief at 2). Given this definition, Staff maintains that loop conditioning is a separate and distinct activity from unbundling a loop from an IDLC/RSU and should, therefore, be addressed separately. Nevertheless, based on the assumption that IDLC/RSU and loop conditioning are equivalent, Staff observes

[44] First Report and Order, ¶745.
[45] First Report and Order, ¶750.
[46] First Report and Order, ¶¶750-751.

that Ameritech relies on language from the UNE Remand Order that applies to loop conditioning only to make the argument that an ILEC's right to cost recovery for unbundling costs is not limited by the assumptions that apply to TELRIC studies. Since IDLC/RSU and loop conditioning are not equivalent and the UNE Remand Order language pertains only to loop conditioning, Staff insists that Ameritech can not convincingly use this language to support its argument with respect to IDLCs and RSUs

Mr. Phipps also rejects Rhythms and Covad witness Riolo's interpretation of a forward looking design. Mr. Riolo argues that under a forward looking design, Ameritech's network should not include bridge taps, load coils, or any other digital service inhibiting elements. Although he agrees with Mr. Riolo that TELRIC is based on forward looking least cost technology, he disagrees with the conclusion that Mr. Riolo draws. According to Mr. Phipps, the FCC states that TELRIC is based on a reconstructed network that assumes that the ILEC's wire centers are at their current locations, but that the reconstructed network connecting the wire centers and customers will employ the most efficient technology. Stated differently, the FCC bases TELRIC on the cost an ILEC would incur today if it re-built its current network using least cost technology. Since Ameritech primarily provides so-called plain old telephone service ("POTS") to end users, and load coils are necessary to provision POTS, Mr. Phipps asserts that the network that Ameritech would build today would include a certain amount of load coils among its components. Accordingly, he finds misleading Mr. Riolo's assertion that a forward-looking network design and loop conditioning are contradictory.

3. McLeod, Ovation, MCI WorldCom, and Allegiance's Position

McLeod, Ovation, MCI WorldCom, and Allegiance assert that Ameritech should not be allowed to recover special construction charges when it provisions loops served via IDLC or RSU since Ameritech is precluded by the FCC's TELRIC rules from recovering these costs. Recovery of these charges, they claim, would result in an over-recovery by Ameritech.

Special construction charges associated with providing unbundled loops in areas served by IDLC and RSU technology, according to McLeod, Ovation, MCI WorldCom, and Allegiance, are not consistent with the FCC's or the Commission's requirement that rates established for accessing UNEs be set to recover only the TELRIC costs of providing access to the element. Ameritech's special construction charges in this circumstance, they argue, actually recover expenses incurred in modifying its existing network (not a forward looking network required by the FCC's TELRIC standard) so as to allow it to provision UNEs. According to these parties, such expenses are not forward looking costs, but are instead short-run marginal costs associated specifically with modifying Ameritech's current, embedded network technology. If the Commission allows Ameritech to recover both monthly recurring TELRIC costs associated with a forward looking network, and then also recover special

construction charges to cover the cost of modifying its existing network to a point where it mimics the forward looking network assumed within the TELRIC studies, they claim that the Commission will have effectively adopted embedded pricing, and Ameritech will be allowed to recover revenues in excess of its TELRIC costs. Ameritech can not, they argue, have it both ways -- it can not charge both TELRIC long run costs and short run marginal costs because to do so is not only inconsistent with the TA96 as it has been interpreted by the FCC, but it also results in a double recovery.

Ameritech's cost studies approved by the Commission in Docket Nos. 96-0486/0569 (Consolidated) generate unbundled loop costs that exceed the costs identified for providing bundled loops, according to McLeod, Ovation, MCI WorldCom, and Allegiance. This is because, they argue, the studies assumed a forward looking network that provisioned loops generally using two different network architectures. They report that Ameritech assumed that in some circumstances (i.e., shorter loops), a loop would be provided using a 100% copper facility stretching from the Ameritech central office to the customer's premises. For longer loops, they indicate that Ameritech assumed an architecture employing a combination of fiber optic feeder cable, DLC electronics, and copper distribution cable. McLeod, Ovation, MCI WorldCom, and Allegiance state that Ameritech further assumed that longer loops serving its retail customer base would be provisioned using IDLC while loops used to provision service to CLECs would use more expensive UDLC. They argue that as a result of Ameritech's assumption, its TELRIC studies generate unbundled loop costs that exceed the costs identified for provisioning bundled loops.

McLeod, Ovation, MCI WorldCom, and Allegiance claim that Ameritech inappropriately assumes, for purposes of developing unbundled loop costs, that it is deploying two different networks, (1) one network using cheaper, more efficient IDLC systems for its retail customers and (2) another network using more expensive, less efficient UDLC systems for unbundled loop customers. They argue that not only is UDLC not a forward-looking technology, but the impact of this distinction is to give Ameritech a cost advantage. These "inconsistent" assumptions, according to McLeod, Ovation, MCI WorldCom, and Allegiance, also amount to a violation of the FCC's rules, which require costs to be calculated using the total demand of both unbundled elements and bundled elements in order to ensure that competitors benefit from the economies of scale and scope that would result from designing a network capable of supporting all services, both bundled and unbundled.

Ameritech's TELRIC studies, McLeod, Ovation, MCI WorldCom, and Allegiance argue, ignore the fundamental question of what technology most efficiently, and at the least cost, supports the provision of both bundled and unbundled loop facilities over the same network. They say that this creates a separate category of costs – the costs to move a retail loop from the bundled network to the unbundled network for purposes of providing a UNE. They argue that the short-run marginal costs that Ameritech incurs to move a loop from an IDLC to a UDLC system are generated directly as a result of Ameritech's refusal to make its network available to CLECs under the same terms and

conditions under which it uses that network to provision services to retail customers. Such expenses, they contend, are not appropriately recovered from CLECs.

According to McLeod, Ovation, MCI WorldCom, and Allegiance, Ameritech should not be allowed to assume the higher cost, less efficient UDLC technology in its TELRIC study, and then also charge CLECs for modifying its existing network to make this less efficient network architecture a reality. In such a situation, they assert that CLECs pay twice (once in higher TELRIC based rates and again in special construction charges) for a product that is less efficient than that against which they must compete (i.e., an Ameritech integrated retail loop). If the Commission allows Ameritech to continue this scheme, McLeod, Ovation, MCI WorldCom, and Allegiance argue, competitors will not be provided access to the Ameritech network on rates, terms and conditions equal to those which Ameritech itself enjoys in providing service to its own retail customers. They assert that as Ameritech continues to deploy more and more IDLC technology, an ever widening gap will develop between the cost structure Ameritech enjoys in providing loops and the costs incurred by its competitors who purchase UNEs.

Mr. Starkey asserts that ILECs have a strong incentive to increase the costs of the network facilities deployed to serve their competitors while simultaneously deploying more efficient, least cost facilities for their retail customers, thereby widening the gap that exists between their own costs of providing service to an end user and the costs their competitors must endure. He claims that these inherent, anti-competitive incentives can be overcome by requiring ILECs to charge rates to competitors that assume the use of the most efficient, least cost technology currently available (i.e., the technology that is most likely to be deployed to serve retail customers).

By setting rates that already assume the use of the most efficient technology available, and ignoring, for UNE pricing purposes, the actual technology deployed by the ILEC, Mr. Starkey maintains that ILECs are provided the proper incentive to deploy the most efficient, least cost technology available for all services/elements they provide. He asserts that this results from the fact that even if an ILEC chooses to use a less efficient technology to serve its competitors, it must absorb the higher costs resulting from that decision.

Mr. Starkey recommends that the Commission, when it re-evaluates Ameritech's unbundled loop costs, require Ameritech to construct a loop study that uses the most efficient, least cost, forward looking technology that can be deployed for purposes of supporting all services and products for which the network will be used. He claims Ameritech will likely be required to assume the exclusive use of IDLC equipment and to identify and quantify any forward looking expenses associated with deriving from that IDLC equipment an identifiable loop in the central office where a request for an unbundled loop is made. Mr. Starkey recommends that until Ameritech modifies its study in such a fashion, it should be required to rely upon its current costs studies to recover costs associated with provisioning unbundled loops in areas served by IDLC

equipment and should be precluded from recovering from its competitors, via special construction charges or any other mechanism, costs associated with modifying its existing network to provision unbundled loops.

McLeod, Ovation, MCI WorldCom, and Allegiance assert that Ameritech's position that there would be no "double recovery" is based on factual misstatements. They argue that Ameritech's TELRIC studies for unbundled loops, while assuming the use of UDLCs, do not assume that UDLCs are already in place, as Ameritech contends. McLeod, Ovation, MCI WorldCom, and Allegiance assert that rather, the studies include the costs of procuring, engineering, installing, and maintaining UDLC equipment, including both RTs and COTs, as well as plug-ins cards, sufficient to produce every unbundled loop. They argue that the studies assume that no facilities exist and that Ameritech must build, from scratch, all of the facilities in every circumstance. McLeod, Ovation, MCI WorldCom, and Allegiance contend that contrary to Ameritech's claim, the studies assume that a new COT must be constructed to support every unbundled loop. They conclude that recovery of these costs through the monthly recurring rate as well as special construction costs results in a double recovery.

According to McLeod, Ovation, MCI WorldCom, and Allegiance, while Ameritech maintains that its studies can not recover the cost of provisioning a loop served via IDLC or RSU since the studies do not assume the existence of such facilities, this position is too narrowly focused. They assert that since Ameritech's studies set loop rates at a price above cost, and includes "factors" that reflect the cost of provisioning, these rates more than cover any costs Ameritech incurs in provisioning loops served via IDLC or RSU.

McLeod, Ovation, MCI WorldCom, and Allegiance state that Ameritech's current unbundled loop rates are set in excess of the true forward looking cost of an unbundled loop assuming the use of least cost, forward looking technology. They maintain that this results from the fact that Ameritech's current studies assume the use of more expensive, less efficient UDLC equipment. This equipment, they argue, is not forward looking technology and increases the monthly charge for a loop using IDLC equipment. McLeod, Ovation, MCI WorldCom, and Allegiance contend that Ameritech assesses this overpayment monthly on every unbundled loop that is purchased, not just on those loops that are transferred from an IDLC to a UDLC system. They claim that these revenues should more than compensate Ameritech for the costs associated with transferring some smaller subset of loops from IDLC to UDLC.

While Ameritech may not have within its unbundled loop study a specifically identifiable cost element for swapping a loop from an IDLC system to a UDLC system, McLeod, Ovation, MCI WorldCom, and Allegiance assert that Ameritech's study includes expenses associated with these same activities in the form of "factors." These factors, they claim, are applied throughout the studies to "gross-up" material investments for purposes of arriving at total installed costs.

McLeod, Ovation, MCI WorldCom, and Allegiance state that Ameritech identifies its historical expenses incurred in procuring, installing, maintaining, and provisioning equipment and aggregates that data over a given year. They aver that it then compares the total expenses associated with these activities and compares the level of those expenses to the total price of all of the equipment that received the benefit of those activities in that year. They say it then arrives at a "ratio" of expenses associated with procurement, installation, maintenance, and provisioning the equipment relevant to a given level of material investment.

Mr. Starkey testifies that Ameritech's cost studies recover costs associated with any activities undertaken by its outside plant personnel in the normal course of provisioning and maintaining network facilities. He claims that if Ameritech's outside plant personnel have in the past undertaken activities to procure, install, maintain, move, add, or change the network for purposes of providing service (either to retail or wholesale customers), the current cost studies generate weighted average costs sufficient to reflect those activities.

According to Mr. Starkey, the myriad of "factors" employed by Ameritech are based upon expenses it incurs via the labor of its own employees, as well as third-party employees, that are subsequently booked to its Part 32 accounts and then allocated to its many cost studies. These expenses, he says, are booked according to the particular activity undertaken by the employee and are tracked by "Activity Code." He states that each employee, and the work he performs as a normal part of his job, is categorized into a specific Activity Code Account whereby the expenses incurred for that employee are tracked and eventually booked to specific Field Reporting Codes that match that employee's labor expenses with the network facility investments he supports. The factors for such activities as maintenance, engineering, installing, maintaining, procuring, equipping and otherwise managing the network are, according to Mr. Starkey, attributed to Ameritech's incremental cost studies. He asserts that to the extent that an Ameritech employee performs a task in the normal course of his daily work, and thereby assigns his time and expenses to the appropriate activity code, those expenses are captured by the Ameritech TELRIC studies and included in the costs for an unbundled (as well as retail) loop.

That, pursuant to the FCC's rules, expenses associated with special construction must be removed from these accounts in order to ensure that Ameritech does not double recover expenses when it assesses special construction charges implies to Mr. Starkey that the activities undertaken specific to special construction and the resultant expenses are currently included unless specifically excluded. He claims it is critical that the Ameritech financial data that serves as the basis for Ameritech's cost study factors is derived from Ameritech's books for 1992, 1993, and 1994. He argues that the data for these years is likely to show very little, if any, special construction charges associated with providing UNEs.

In its Reply Brief, McLeod, Ovation, MCI WorldCom, and Allegiance insist that Ameritech ignores relevant evidence when it claims that Mr. Starkey conceded that costs would be backed out of the factors. They state that Mr. Starkey explained under cross-examination that while there were activities during the 1992 through 1994 time frame when the costs underlying the studies were incurred, Ameritech was not collecting special construction charges from its retail customers. They argue that there were no offsets to those amounts.

Mr. Starkey asserts that Ameritech's unbundled loop study supporting its TELRIC rates must recover expenses associated with all of the activities undertaken by Ameritech's employees in the normal course of their jobs. He indicates that these activities include, but are not limited to, all of the activities for which Ameritech now suggests it must assess special construction charges. He argues that allowing Ameritech to recover special construction charges for these activities would allow Ameritech to double-recover its legitimate expenses.

Moreover, the telecommunications industry is a "declining cost industry", according to Mr. Starkey. He says that technology and productivity have allowed local exchange carriers like Ameritech to provision the same level of output while deploying fewer resources in the process, thereby significantly lowering per-unit costs. He argues that to the extent that most of Ameritech's "factors" used in its TELRIC studies employ historical data from as long ago as 1992, it is almost without doubt that Ameritech's factors over-estimate the level of expense Ameritech actually incurs today in provisioning UNEs.

McLeod, Ovation, MCI WorldCom, and Allegiance ask why, if Ameritech is allowed to recover from its competitors the costs of moving retail loops from IDLC and RSU equipment (equipment that lessens the cost of providing retail loops while increasing the costs of providing unbundled loops), would it ever consider a more efficient network design that minimizes the overall cost of providing all network services and elements (i.e., both bundled as well as unbundled loops). They also inquire as to what incentive Ameritech has to not increase its deployment of IDLC and RSU equipment so as to further reduce the costs of its retail, bundled loops (without devising a method to unbundle those facilities) and the costs its competitors must pay for unbundled loops.

The Commission, McLeod, Ovation, MCI WorldCom, and Allegiance note, should be aware that the IDLC/RSU problem will be exacerbated as Ameritech installs more integrated technology and the Commission allows Ameritech to assess special construction charges for transferring loops from IDLC or RSU equipment to either copper facilities or UDLC equipment. Such a policy, they claim, will very quickly drive an ever widening wedge between the loop costs Ameritech incurs in providing service to its retail customers and the costs its competitors will incur when they purchase unbundled loops. McLeod, Ovation, MCI WorldCom, and Allegiance assert that Ameritech has generally discontinued deploying UDLC systems because they are more

costly and less efficient than IDLC. At the same time, they report that Ameritech's rate of deploying IDLC technology has accelerated since 1996 when the TA96 was passed. McLeod, Ovation, MCI WorldCom, and Allegiance characterize as a major network initiative SBC and Ameritech's Project Pronto. They indicate that Project Pronto will significantly increase the number of IDLC systems deployed throughout the Ameritech network Project Pronto, they claim, will thus further increase the number of circumstances in which Ameritech will demand special construction charges. Mr. Starkey argues that the IDLC equipment installed under Project Pronto will be GR-303 compatible, meaning that Ameritech will be able to provision unbundled loops from IDLCs. If the facilities to be deployed pursuant to Project Pronto will not support unbundled loops, as he contends Mr. Florence suggests, Mr. Starkey claims that Project Pronto will enhance Ameritech's ability to "hide" customers from its competitors behind equipment that can not be unbundled.

Ameritech, according to McLeod, Ovation, MCI WorldCom, and Allegiance, has repeatedly relied in this proceeding on paragraph 384 of the FCC's First Report and Order to support its argument that it should be allowed to use special construction charges to recover expenses associated with unbundling an IDLC system. A close reading of that paragraph, they assert, establishes it does not support Ameritech's position. Paragraph 384 states as follows:

> 384. We find that it is technically feasible to unbundle IDLC-delivered loops. One way to unbundle an individual loop from an IDLC is to use a demultiplexer to separate the unbundled loop(s) prior to connecting the remaining loops to the switch. Commenters identify a number of other methods for separating out individual loops from IDLC facilities, including methods that do not require demultiplexing.[831] Again, the costs associated with these mechanisms will be recovered from requesting carriers.

[831] Under more recent standards for IDLC facilities, a competitor's loop traffic could be separated from the incumbent LEC's loop traffic without the use of mutliplexers. See e.g., MCI comments at 30 (IDLC loops can be moved onto other loop carrier links, or alternatively, can be removed from the multiplexed signal through "hair pinning").

According to McLeod, Ovation, MCI WorldCom, and Allegiance, Ameritech is not "unbundling an IDLC-delivered loop," as described by the FCC in paragraph 384, by removing the loop from an IDLC system and deploying it via a non-integrated, UDLC system. Instead, they assert that when it undertakes such an activity, Ameritech is simply deploying an unbundled loop to the same location using a different technology. The four parties claim that the costs incurred by Ameritech are not the same costs contemplated by the FCC in paragraph 384. The important distinction between these two approaches, they assert, is that the FCC's approach requires that a single network (a network deploying IDLC technology) be used to provide service to both retail customers and purchasers of unbundled loops. Ameritech's approach, they argue,

simply relegates the provision of unbundled loops to a secondary, less efficient network and then, asks the CLEC to pay additional charges for the pleasure. In contrast, Mr. Starkey opines that in paragraph 384 the FCC decided that it is technically feasible to unbundle IDLC systems. He claims that in the three and one half years since that order was issued, technology has progressed to a point where unbundling an IDLC system is even more technically and economically feasible. An MCI WorldCom publication marked at Attachment 2 and affixed to Joint CLEC Ex. 1.0 purports to describe different ways in which an IDLC system may be unbundled.

In addition, Mr. Florence argues that only UDLC can provide the ability to terminate the individual loops on the MDF for cross-connection to the CLEC and that is, therefore, the appropriate technology to be used in TELRIC studies. In response, Mr. Starkey explains that the MDF is a facility in the ILEC central office wherein copper facilities are terminated for purposes of electrical protection and identification. He says that in traditional, copper-based outside plant architectures the MDF served as the primary connection frame in the central office and the vast majority of loops were terminated there before being cross-connected to the switch. With the advent of fiber technology and high-capacity, digital carrier devices, he claims that a number of other frames (generally referred to as digital cross-connect systems or DSXs) are also employed in the central office and perform the same function as the MDF for digitally derived circuits.

According to Mr. Starkey, while Mr. Florence believes that a technology must be capable of terminating a loop facility on the MDF before it can be unbundled, the FCC suggests that any distribution frame or its equivalent can be used to define the network element that constitutes an unbundled loop. He claims that IDLC systems can be, and generally are, terminated on a digital cross-connect frame within the central office. He concludes that even though these circuits do not terminate on the MDF, they do terminate on a distribution frame or its equivalent. McLeod, Ovation, MCI WorldCom, and Allegiance argue that the FCC's UNE Remand Order defined a local loop broadly enough to include terminations at these other points, which they claim disproves the argument that a technology must be capable of terminating a loop facility on the MDF before it can be unbundled.

Mr. Florence's contention that additional facilities will be necessary to unbundle IDLC loops, according to Mr. Starkey, can be misleading. Mr. Starkey argues that different, not necessarily additional, facilities might be necessary to accomplish such unbundling. When an IDLC system is terminated to the digital cross-connect frame and an unbundled circuit is thereby "groomed" from the bit-stream, Mr. Starkey states the MDF is no longer required to support that circuit. The MDF equipment, he claims, is simply replaced by the digital cross connect equipment. Mr. Starkey also asserts that while some additional labor might be involved to map certain circuits from the IDLC to a carrier's collocated equipment, there is no indication that this amount of labor will exceed the savings that result from using the more efficient IDLC equipment.

McLeod, Ovation, MCI WorldCom, and Allegiance point out that the only cost recovery mechanism included in the FCC's First Report and Order with respect to unbundled loops is its TELRIC rules, which they note are included at paragraphs 618 through 758. When the FCC suggested at paragraph 384 that an ILEC is allowed to recover its costs of provisioning a line served via an IDLC, they argue it necessarily implies that those expenses should be recovered pursuant to those TELRIC rules. Since Ameritech's special construction charges are not TELRIC-based rates, the four parties claim that they are not consistent with the FCC's rules. They contend that Ameritech is unreasonably relying on paragraph 384 as support for its position that special construction charges may be recovered where loops are provisioned via IDLC or RSU

As for any suggestion that Ameritech may assess special construction charges when it performs a wire out of limits pursuant to its special construction tariff, Mr. Starkey argues that in the vast majority of cases wherein Ameritech must, because of a lack of spare facilities, provision service via a wire out of limits rearrangement, the customer has not "requested" that Ameritech perform a wire out of limits. Rather, he states that the retail customer has simply requested that he be provided a network access line. Ameritech then decides, Mr. Starkey continues, that the most expedient or efficient way in which to service that customer is to perform a wire out of limits rearrangement. This type of circumstance is not what the above referenced tariff is intended to address, according to Mr. Starkey. The tariff language, he contends, is meant to address situations wherein a customer wants a telephone cable that is being installed to be placed in a location or in a manner that Ameritech would not otherwise have chosen (for example, a customer wants the telephone line to be placed in such a way that leaves his garden or driveway undisturbed, or, a customer wants an underground cable placed instead of an aerial cable in an area wherein Ameritech would normally place an aerial facility).

In addition, in order for Ameritech to reasonably assess special construction charges on its CLEC competitors, Mr. Starkey maintains that Ameritech must meet two criteria. According to Mr. Starkey, it must first show that it *would* assess similar charges on its retail customers in the same circumstance (not just that it *could* pursuant to its tariff), and, second, it can not already be recovering expenses associated with the activities in question through the monthly recurring and nonrecurring TELRIC based rates the CLEC already pays. As indicated above, Mr. Starkey does not think that Ameritech meets the first of these tests with respect to wire out of limits. He adds that not only would Ameritech not assess special construction charges on its retail customers in the majority of wire out of limits situations, its tariff does not allow it to assess charges for these activities in most circumstances. With regard to his second criteria, Mr. Starkey insists that wire out of limits rearrangements are exactly the types of provisioning scenarios for which Ameritech's myriad of cost factors already allow it to recover expenses. Hence, he maintains that Ameritech meets neither of the two tests. Mr. Starkey recommends that the Commission not adopt Staff's initial recommendation concerning wire out of limits. Instead, he urges the Commission to adopt Staff's revised

recommendation prohibiting the assessment of special construction charges for wire out of limits.

4. Rhythms and Covad's Position

Throughout its testimony, according to Rhythms and Covad, Ameritech urges the Commission to force CLECs to pay special construction charges – the costs associated with its obsolete embedded plant – and ignore an efficient forward-looking network design. They claim that that analysis is wrong as a matter of law and policy. Rhythms and Covad assert that the FCC has found that prices should be based on the cost of a "reconstructed local network" deploying "the most efficient technology for reasonably foreseeable capacity requirements" and that the FCC's rules explicitly preclude the consideration of embedded costs. They observe that the Commission has similarly adopted the TELRIC pricing methodology.

Rhythms and Covad state that under a TELRIC methodology, the total recurring and nonrecurring charges for a given network element may not exceed the total forward looking economic cost for that element. Pursuant to these TELRIC principles, they argue that the combination of all Ameritech's recurring and nonrecurring charges – including special construction charges – must not exceed the total forward-looking economic cost for the applicable UNEs. Rhythms and Covad allege that Ameritech's special construction charges are both discriminatory and contrary to federal pricing rules because (1) they are not based upon a forward-looking network architecture consisting of the most efficient technology available, and (2) they constitute a double recovery of Ameritech's costs.

Ameritech, Rhythms and Covad aver, has based its recurring costs on an efficient forward-looking network, but based its non-recurring costs (or, special construction charges) on portions of its obsolete embedded network. Mixing and matching networks to obtain costs for different charges violates TELRIC principles, according to Rhythms and Covad. TELRIC principles, they argue, require that costs be based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the ILEC's wire centers.

Rhythms and Covad state that there can only be one "lowest cost network configuration." They argue that Ameritech has arbitrarily selected the highest combination of recurring and non-recurring rates to maximize its return – an act which they characterize as a shrewd business decision if it did not violate the FCC's pricing rules. Ameritech's combination scheme, Rhythms and Covad aver, does not reflect Ameritech's costs under any analysis and must be rejected.

According to Rhythms and Covad, Ameritech continues to argue that it is appropriate to recover special construction charges for unbundling loops from IDLCs, because the cost of such unbundling is not included in its TELRIC studies since its

UNE cost studies assume the older, more expensive UDLC. Ameritech makes this argument, Rhythms and Covad aver, despite the fact that it assumes the use of IDLC technology for its own retail services. They argue that this results in assumptions producing unbundled loop costs that exceed the costs identified for providing bundled loops.

The record evidence in this case, according to Rhythms and Covad, clearly shows that NGIDLCs are available and are being used by Ameritech. They contend that Ameritech witness Suthers admits as much in his surrebuttal testimony. Rhythms and Covad conclude that it is improper for Ameritech to impose these special construction charges on CLECs for work that would not be necessary in a forward looking architecture utilizing NGIDLCs.

Ameritech's monthly recurring charge for a basic unbundled loop, according to Rhythms and Covad, reflects the full-forward looking economic cost of a modern network design that does not include components such as load coils that interfere with DSL-based services and analog POTS modems. They assert that Ameritech's special construction charges, however, are based on a different network: Ameritech's embedded network. They claim that pre-1980 design is the only network that has loops where load coils and excessive bridged tap reside. Rhythms and Covad argue that Ameritech's special construction charges for conditioning are features of the inefficient embedded network.

Giving no weight to Ameritech's embedded costs, Rhythms and Covad argue, is consistent with the underlying goals of the TA96. They contend that TELRIC-based pricing was meant to mimic a competitive market. In such a market, according to Rhythms and Covad, a supplier cannot charge for costs that were incurred as a result of past activities when there are currently more efficient ways to supply the same good.

Ameritech can not continue to charge CLECs, according to Rhythms and Covad, the conditioning costs associated with its embedded network when the "market price" (i.e., efficient forward-looking costs) for an unbundled loop is less. They state that under any analysis, Ameritech's mix and match network approach overestimates the costs it incurs. They argue that Covad and Rhythms are charged recurring charges (including depreciation of a new network) that include all costs necessary to provide a network without load coils and bridged tap. Ameritech, they claim, is now seeking to recover – through its special construction charges – nonrecurring conditioning charges too. According to Rhythms and Covad, Ameritech cannot have the best of both worlds – nonrecurring conditioning charges to retrofit its outmoded, largely depreciated network, and recurring charges based on the full cost, including depreciation, for a modern network. They argue that the special construction charges Ameritech has charged, and continues to charge, for conditioning duplicate what Ameritech has already promised to CLECs with its recurring charges: a loop that is free of load coils and excessive bridged tap.

Rhythms and Covad claim that several other state commissions have already rejected a "mix and match" approach by other SBC operating companies similar to the one Ameritech advances here. They claim that the commissions in Texas, New York, and California refused to use different networks to develop recurring and nonrecurring costs They urge the Commission to follow the lead of such states and reject Ameritech's approach. Recurring and nonrecurring charges, they argue, must be based on the same network architecture. When this analysis is used, according to Rhythms and Covad, additional special construction charges for conditioning are neither necessary nor appropriate.

Correctly designed outside plant built during the past two decades, Rhythms and Covad argue, should present minimal obstacles to the provisioning of xDSL services. The only reason Ameritech needs to condition loops, they claim, is because its plant is outdated and long past its useful economic life. Starting in 1980, they relate, ILECs developed long range outside plant plans for all central offices. According to Rhythms and Covad, those long range plans identified the ultimate design configuration for the local loop – that is, meeting the Carrier Serving Area criteria for 100% non-loaded loops, and limited bridged tap so that digital services like ISDN could be supported by all loops without special conditioning. They assert that these are the same Bellcore guidelines that Ameritech has used to build its outside plant.

According to Rhythms and Covad, by charging Illinois residents for a modern network over the last 30 years and then charging CLECs again for network upgrades that it failed to implement, Ameritech is attempting to impermissibly recover twice for a loop free of load coils, bridged tap, and repeaters. They maintain that Ameritech should have been deploying a modern plant for at least the past 30 years. According to Rhythms and Covad, when DSL CLECs order loops that supposedly exist in Ameritech's "modern" outside plant, they find that Ameritech has not deployed a modern plant in many locations. They say that instead, Ameritech has pushed its antiquated plant past its useful life and has apparently been pocketing money from Illinois ratepayers. To add insult to injury, they assert that Ameritech is now asking DSL CLECs like Rhythms and Covad to pay to modernize the plant for Ameritech again through its special construction charges. The Commission, according to Rhythms and Covad, should not allow Ameritech to recover the costs of a modern plant a second time.

Rhythms and Covad witness Riolo states that TELRIC studies are predicated on forward looking, least cost design. He claims that it would be difficult to embrace TELRIC plus "add-ons" as reflecting efficient deployment of a network developed to support a forward looking TELRIC type analysis. Like McLeod, Ovation, MCI WorldCom, and Allegiance witness Starkey, Mr. Riolo asserts that it is possible to provide unbundled loops from IDLC based facilities. He reports that such facilities include a powerful feature called the Time Slot Interchanger, which among other things, allows any customer connected to a RT to be "mapped" via software, to appear in any DS1 signal in the COT. The advantage, according to Mr. Riolo, is that the signal

remains in the digital format and can be routed to bypass the local digital switch. He claims that unbundling can be achieved without the need to utilize back to back conversions. Mr. Riolo also indicates that Ameritech's response to a data request stated that "Ameritech Illinois has deployed IDLC systems, such as LiteSpan, which are capable of providing unbundled loops without the installation of new COTs since 1993."

In response to Staff witness Phipps, Mr. Riolo states that load coils are not necessary to provision POTS. Because efficient forward-looking loop plant design uses fiber feeder facilities and electronics to reduce the length of copper plant, he states that load coils are not required to provide POTS service in outside plant built to an efficient modern engineering standard. Load coils, he asserts, have not been required to provide POTS service in outside plant that complies with widely accepted design standards for the last 30 years.

Rhythms and Covad state that Ameritech has repeatedly relied on paragraph 382 of the First Report and Order and paragraphs 190 through 194 from the FCC's UNE Remand Order to justify its special construction charges. That reliance, they contend, is misplaced because Rhythms and Covad have never requested free conditioning. Ameritech is entitled to recover costs associated with a conditioned loop, and it is already receiving that compensation, according to Rhythms and Covad. They argue that Ameritech charges a recurring rate that recovers the full cost of an efficient fiber and DLC-based network free of load coils, repeaters, and excessive bridged tap.

The FCC, according to Rhythms and Covad, recognized in its UNE Remand Order that ILECs, such as Ameritech, may be motivated to exaggerate their conditioning "costs" in order to recover more than they would be entitled to under the TELRIC methodology. They note that in paragraph 194 of the UNE Remand Order, the FCC stated "that incumbent LECs may have an incentive to inflate the charge for line conditioning by including additional common and overhead costs, as well as profits." Rhythms and Covad argue that such is the case here. They assert that in many cases the level of special construction charges that Ameritech has sought to impose for conditioning substantially exceeds the total investment per loop in even the highest-cost band in its existing TELRIC studies. Such a cost structure, they claim, leads to the conclusion that it would be more cost-effective for Ameritech to build entirely new loop plant to serve a request for an unbundled loop than for Ameritech to use an existing loop from which it must, for example, remove load coils.

To avoid such inflated costs, Rhythms and Covad say, the FCC deferred to state commissions the role of ensuring that the costs ILECs impose on competitors for line conditioning are in compliance with the TELRIC pricing rules. Because Ameritech is already recovering conditioning costs through its recurring loop charge, they aver, the Commission must find that any additional special construction charges for conditioning are improper.

According to Rhythms and Covad, even if the Commission determines that Ameritech should be able to impose additional charges for conditioning, Ameritech should be required to adopt fixed, interim conditioning rates. They argue that the interim conditioning charges from the joint Covad-Rhythms arbitration with Southwestern Bell Telephone ("SWBT") serve as a reasonable proxy for TELRIC-based costs. They recommend that these interim rates should remain in effect until Ameritech provides a properly documented loop conditioning cost study in compliance with the SBC/Ameritech merger conditions and all affected parties have an opportunity to review and comment on the study.

D. Commission Conclusion

In addressing the issue of double recovery, certain CLEC witnesses in this proceeding argue that Ameritech's current UNE rates are based on a misunderstanding of the FCC's rules and improper assumptions regarding Ameritech's network. Under their position, special construction charges are never appropriate because the FCC only authorized the recovery of costs from CLECs through TELRIC rates based on a forward looking network that would, in their opinion, not require any modifications to serve CLECs. To the extent that any party advocates revisions to Ameritech's UNE rates or the assumptions upon which those rates are based, the Commission is of the opinion that this investigation is not the appropriate forum in which to do so. This proceeding was initiated to determine whether Ameritech's application of special construction charges is discriminatory or preferential. Although the Commission is intrigued by the argument that rates for UNEs and retail service should be based on the same network assumptions, to adopt such an argument at this time would exceed the scope of this investigation. Furthermore, the Commission does not agree that the FCC prohibits the assessment of all special construction charges. As may be seen from the list of merger conditions adopted in CC Docket No. 98-141, the FCC sanctions Ameritech's collection of TELRIC based charges for loop conditioning—charges which are in addition to the standard TELRIC rates for UNEs.

In addition, McLeod, Ovation, MCI WorldCom, and Allegiance argue that Ameritech's current TELRIC rates do not reflect the fact that unbundled loops can be provisioned from NGIDLCs. McLeod, Ovation, MCI WorldCom, and Allegiance's witness, Michael Starkey, indicates that there are four technically feasible unbundling methods that can provide CLECs with non-discriminatory access to customers served by IDLCs: (1) multiple switch hosting, (2) integrated network architecture, (3) digital cross-connect system grooming, and (4) side-door grooming. In its UNE Remand Order, however, the FCC stated that the first two options only work with GR-303 compatible systems while the third option is very expensive and the fourth can only be done for a few lines per RT.[47] While Ameritech's network does employ some GR-303 compatible systems, the total of such represents a minority among Ameritech's systems. Even if the four options were all economical and generally available

[47] UNE Remand Order, ¶217, fn. 417.