STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL
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DOCKET NO. 09-04-21 DPUC INVESTIGATION INTO THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY'S COST OF SERVICE RE: RECIPROCAL COMPENSATION

April 14, 2010

By the following Commissioners:

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DECISION

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DECISION

I. INTRODUCTION

A. SUMMARY

In this Decision the Department of Public Utility Control (Department) determined that the failure of The Southern New England Telephone Company d/b/a AT&T Connecticut (AT&T or Telco) to fully provide its cost studies on a timely basis negatively impacted the ability of the Department and the other parties to thoroughly analyze the cost studies. The inadequate cost studies were further exacerbated by the insufficient job AT&T witnesses performed in support of the studies. However, the Department has determined that it is in the public interest to utilize the cost studies with several adjustments to produce cost based rates to Reciprocal Compensation (Recip Comp) and Transit Traffic Service (TTS).

In this Decision the Department orders AT&T to file rates in accordance with the following changes to inputs:

1. Remove the billing clearinghouse function (BCF) from the TTS (competitive local exchange carriers (CLEC)) study.
2. Reduce the joint and common cost (J&C) mark-up for TTS so that it is consistent with the J&C mark-up for Recip Comp.
3. Change the replacement/growth line/trunk mix to 85.1% replacement and 14.9% growth.
4. Establish an effective overall proposed trunk utilization/fill factor that accounts for the cumulative interaction between the centum call seconds (CCS) assumption in the Recip Comp and TTS and the utilization/fill in the switching information cost analysis tool (SICAT) model no higher than the "midpoint" value proposed by AT&T.
5. Reduce the channel mileage assumption miles to 11.43 miles in the Recip Comp and TTS (CLEC) studies.
6. Reduce the channel mileage assumption miles to 14 miles in the TTS (Wireless).
7. Increase the Lucent and Nortel line-to-trunk ratios by an increment of one additional line per trunk.

The Department has re-run the Telco's cost studies incorporating these modifications for the purpose of estimating the impact of these changes on AT&T's rates for Recip Comp and TTS services. The following table presents the revised rates for Recip Comp and TTS.

Rate Element	Revised
Transit (LEC)	$0.000934
Transit (Wireless)	$0.000852
Recip Comp (Tandem)	$0.001775
Recip Comp (End Office)	$0.001092

The revised rates should be considered preliminary results. The Department directs AT&T to perform compliance runs of its cost of service studies, incorporating the above analysis on input changes, and file those compliance runs for the Department's review and approval. Final rates will be established based on the approval of AT&T's compliance runs. Further, the final Department-approved cost-based rates should be available to all CLECs and wireless carriers in Connecticut whether AT&T makes those rates available by tariff, interconnection agreement or commercial agreement.

B. BACKGROUND OF THE PROCEEDING

In the April 8, 2009 Decision in Docket No. 08-10-29, Petition of Youghiogheny Communications-Northeast, LLC d/b/a Pocket Communications for Arbitration Pursuant to the Telecommunications Act of 1996 to Establish an Interconnection Agreement with The Southern New England Telephone Company d/b/a AT&T Connecticut, the Department accepted an Arbitrator's recommendation that an interim Recip Comp rate of $0.006110 per minute of use (MOU) be imposed until a new cost of service study is approved. In that Decision, the Department also required that the Telco file a cost of service study that supports its Recip Comp rate no later than July 17, 2009. Furthermore, by letter dated May 20, 2009, in response to the parties' Requests for Clarification, the Department directed the Telco to include in its July 17, 2009 cost of service study filing, a cost of service study that also examined the Telco's cost of providing TTS for wireline and wireless originated traffic and one which supported the Telco's Connecticut transit traffic factor. AT&T submitted its cost of service studies for Recip Comp and TTS services on July 17, 2009.

C. CONDUCT OF THE PROCEEDING

By Notice of Hearing dated July 31, 2009, the Department announced that a public hearing would be held on August 31, 2009. By Notice of Rescheduled Hearing dated August 31, 2009, the Department canceled that hearing and rescheduled it to September 21, 2009. That hearing was held and the Department conducted additional hearings on September 22, 2009 and September 23, 2009. The September 23, 2009 hearing was continued to October 29, 2009, for the purpose of addressing late-filed exhibits at which time it was closed.

The Department issued a draft Decision in this proceeding on March 4, 2010. All parties were provided an opportunity to file written exceptions to and present oral arguments concerning the draft Decision.

D. PARTIES

Parties to this proceeding have been attached as Appendix A.

II. POSITIONS OF THE PARTIES

A. AT&T

AT&T asserts that the Department's critical task in this proceeding is approving rates that are reasonable, compensatory, and that provide the competitive incentives

intended by Congress when it enacted the Telecommunications Act of 1996 (Telcom Act) and by the Federal Communications Commission (FCC) when it approved Total Element Long Run Incremental Cost (TELRIC) methodology.[1] AT&T maintains that its July 2009 cost studies are TELRIC-compliant and are consistent with the Department's Total Service Long Run Incremental Cost (TSLRIC) methodology that it accepted in the past.[2] AT&T also asserts that, like the cost study AT&T previously filed in 2000[3], the cost of service studies filed in this proceeding are fully auditable and replicable.[4]

The Telco requests that the Department ground its assessment on the other parties' proposals in objective, real-world data, so as to avoid setting rates based on costs that are "pure fantasy." AT&T maintains that its cost studies are a forward-looking view of the costs to construct and operate an incumbent local exchange carrier's (ILEC) wireline telephone network. These projections, according to the Telco, reflect efficient, forward-looking engineering practices and the manner in which a forward-looking network technology could be built with currently available efficient technology.[5]

AT&T requests that the Department reject the other parties' proposals that soft switches be incorporated into the study because the Telco has not deployed them nor does it have plans to do so. The study currently utilizes 100% digital switches and those are the only types of switches that the Telco plans to use for the foreseeable future.[6]

AT&T addresses the ratio (or mix) of "replacement" and "growth" lines used in its switching cost studies. The Telco defines a growth line as an additional line installed on existing switches and a replacement line as the lines that are replaced on existing analog switches.[7] AT&T explains that the switching costs developed in the SICAT model are based on Digital Network Deployment (DND) vendor contracts with Nortel and Lucent which, at a high level, contain "per-line" or "per-trunk" prices based on whether those lines are growth lines or replacement lines.[8] According to the Telco, the distinction between these types of lines is important because replacement lines are significantly less expensive than growth lines. Therefore, the ratio of replacement-to-growth lines assumed in the cost study is a driver of switching costs.[9] AT&T asserts that its replacement/growth weighting approach is well-established and consistent with its vendor contracts. The replacement lines have lower prices in order to induce initial purchases (recognizing that higher-priced growth lines can only be obtained from that vendor).[10] AT&T contends that its proposed ratio, filed under protective order, is

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[1] AT&T Brief, p. 1.

[2] For the purpose of this proceeding, the Telco has treated TELRIC and TSLRIC methodologies interchangeably. AT&T Brief, p. 5.

[3] Prior to the July 2009 filing, the Telco last filed a cost study for TTS services in Docket No. 00-01-02, Application of The Southern New England Telephone Company for Approval of Cost Studies for Unbundled Network Elements.

[4] AT&T Brief, p. 7.

[5] Id., p. 2.

[6] Id., pp. 8 and 9.

[7] Mollet prefiled testimony (PFT), p. 8.

[8] Id., p. 7.

[9] Id., p. 9.

[10] AT&T Brief, p. 17.

conservative because it has replaced all analog switches in Connecticut and therefore, those lines could be considered to be 100% growth lines.[11] AT&T asserts that other parties have ignored that there is a trade-off between growth and replacement line prices, and as such, the mix cannot be modified to reduce the higher-priced growth percentage in the mix in isolation. That change would be offset by the vendor with an increase in replacement line prices.[12] For these reasons, AT&T recommends adopting its proposed replacement/growth mix for calculating switching costs.

Furthermore, AT&T states that "actual fill factors" are appropriate and that the FCC and the Department have approved them in the past.[13] Nevertheless, instead of using the actual fill factors, the Telco has assumed the midpoint of a range the AT&T engineers use to determine the "health" of its network. The Telco asserts that its proposed fill factor assumption is conservative and consistent with TSLRIC.[14]

For the DS1 expense, AT&T asserts that this cost is incurred when transporting transit calls to CLECs who charge AT&T for transporting calls to their end offices (instead of those CLECs establishing a point of interconnection (POI) at AT&T's tandem office). AT&T argues that the originating carrier is the cost causer (and benefits from being able to reach the three Cable CLECs who charge AT&T for transporting calls to their end offices) and the originating carrier should pay the cost for this transport when transiting calls. Regarding the DS1 electronics, the Telco contends that the investment amount used in the study is not excessive since it comes directly from vendor contracts and that Youghiogheny Communications-Northeast, LLC d/b/a Pocket Communications' (Pocket) cost comparison to tariffed rates is flawed.[15] With respect to the mileage between end offices and tandem switches, AT&T agrees to change the mileage to 11.87 miles as proposed by Pocket.[16] Lastly, AT&T asserts that its transport costs for land-to-mobile calls are consistent with the interconnection agreements the Telco has entered into with Connecticut wireless carriers that require AT&T to transport land-to-mobile calls up to 14 miles.[17] According to the Telco, the interconnection agreement is the binding statement on the parties' responsibilities and therefore, the inclusion of land-to-mobile transport costs in the cost study is appropriate.[18] Nevertheless, the Telco has revised the transport mileage for land-to-mobile to 14 miles instead of the higher mileage assumed in its cost studies.[19]

AT&T included an average compensation expense to recover the cost of the BCF. AT&T argues that the BCF is "part and parcel" of Connecticut TTS offering and that the Telco performs the BCF for all CLECs.[20] AT&T notes that it only included compensation costs in the CLEC TTS studies for calls to those that do not have bill-and-

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[11] Mollet PFT, p. 10; AT&T Brief, p. 16.
[12] AT&T Brief, pp. 19 and 20.
[13] Id.
[14] Id., p. 30.
[15] Id., p. 33.
[16] Id., pp. 37 and 38.
[17] Id., pp. 33 and 34.
[18] Id., p. 35
[19] Id., p. 20.
[20] Id., p. 45.

keep arrangements with AT&T.[21] The Telco asserts that it is paying intraLATA toll access charges on behalf of CLECs transiting calls and that inter-carrier compensation is the obligation of the originating carrier (the cost causer). Thus, AT&T concludes that it is appropriate to include the BCF cost in the CLEC TTS rate.[22]

Moreover, AT&T states that it is not practical to offer the BCF on an optional basis because of the "administrative nightmare" which would require the Telco to keep track of whether or not it should pay the terminating carrier. Similarly, the terminating carrier would be required to keep track of whether or not to bill the Telco or the originating CLEC. As such, AT&T refers to the BCF as an "all or nothing" proposition.[23] AT&T contends that if the Department requires the Telco to provide the BCF as an optional add-on, it may be forced to withdraw the BCF altogether and amend CLEC contracts accordingly.[24]

Furthermore, AT&T claims that its proposed cost of capital is a conservative number as it is lower than that previously approved by the Department.[25] In the opinion of the Telco, TSLRIC requires a risk-adjusted cost of capital that accounts for the higher risk faced by a facilities-based competitive company, and that the debt-to-equity ratio and cost of capital should be based on market values instead of book values.[26] Regarding the input factors such as land, buildings and backup power, AT&T contends that the power and common factor identifies investment required to provide back-up power for the installed central office equipment and the placement factor reflects investment required to house the installed central office equipment (based on actual square footage obtained from AT&T Corporate Real Estate group).[27] AT&T states that if the equipment were not present, there would be no need for the land, or the building sitting on the land, or the back-up power in place to operate the equipment in the building in which the equipment is located. AT&T further states these costs do not include administrative functions that are recovered through the J&C factor.[28]

Lastly, AT&T maintains that the FCC expressly requires a J&C cost mark-up for TSLRIC rates and its proposed J&C, provided under protective order, for Recip Comp is the mark-up used for all of its current UNE rates.[29] The Telco asserts that its proposed J&C cost mark-up is among the lowest mark-up in its 22-state region.[30] For TTS, AT&T contends its proposed J&C mark-up is consistent with the observed level of competition in Connecticut.[31]

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[21] Tr. 09/21/09, p. 29; AT&T Brief, pp. 47 and 48.
[22] AT&T Brief, p. 46.
[23] Id., p. 48.
[24] Pellerin PFT, p. 30.
[25] AT&T Brief, p. 38.
[26] Id., p. 39.
[27] Id., p. 41.
[28] Id.
[29] Id., pp. 51 and 52.
[30] AT&T Brief, p. 51.
[31] Id.

B. YOUGHIOGHENY COMMUNICATIONS-NORTHEAST, LLC D/B/A POCKET COMMUNICATIONS

Pocket argues that AT&T's cost studies failed to comply with Department precedent because they were unauditable and limited the parties' ability to review them.[32] Specifically, Pocket maintains that the back-up material provided by AT&T in discovery responses did little to resolve the Telco's noncompliance as it provided more than 40 spreadsheets without explaining how they support the cost study inputs and without an index or glossary.[33] Additionally, Pocket points out AT&T's apparent lack of knowledge to support its own cost study as its witnesses were unable to answer germane questions about the cost studies at the hearing.[34]

Because of the perceived shortfall of the Telco's cost studies and the Telco's inability to answer questions concerning the study, Pocket recommends that the cost studies be rejected outright and that the following benchmarks for AT&T's rates be set: (1) $0.000454 per MOU for TTS (based on the AT&T-Michigan rate); and (2) $0.0007 per MOU for Recip Comp (based on the rate AT&T charges in all other states).[35] Pocket also recommends implementing these benchmarks for a period of five years.[36]

As an alternative to the above, Pocket recommends AT&T's cost studies be modified. In particular, Pocket recommends: 1) reducing the percentage for network buildings by 50%; 2) eliminating land costs; 3) eliminating the power costs for land and buildings; 4) reducing the overhead associated with the Channel Mileage Termination and ACF 377C (Circuit Switching); 5) modifying the number of nodes; 6) eliminating facilities and mileage costs; 7) eliminating the DS1 expenses; 8) running the SICAT using a "marginal" macro instead of an "average" macro; 9) eliminating costs related to replacement/growth weightings; 10) increasing the trunk-to-line ratio; 11) increasing the average duration per call; 12) changing the average mileage in Recip Comp study to 11 miles; 13) changing the Debt to Equity Ratio and the Cost of Capital; and 14) reducing AT&T's costs by one-third.[37]

Lastly, to the extent that the Department does not reject AT&T cost studies and instead relies upon the Telco's cost studies, Pocket recommends that the Department render the above input changes and order AT&T to perform a compliance run. Pocket estimates that the result of a compliance run, using its revised inputs, will result in Wireless TTS rates between $0.0004 and $0.0005 per MOU and Recip Comp rates between $0.0006 and $0.0008 per MOU.[38]

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[32] Pocket Brief, pp. 2, 19.

[33] Specifically, AT&T provided a matrix in response to Interrogatory TE-6 which was expected to be a "roadmap" for inputs. However, this matrix was confusing and only provided a "starting point." Id., pp. 20 and 21.

[34] Id., p. 22.

[35] Id., p. 5.

[36] Id., p. 25.

[37] Id., pp. 16-20.

[38] Benedict PFT, p. 14.

C. COMCAST PHONE OF CONNECTICUT, INC., CABLEVISION LIGHTPATH-CT, INC. AND COX CONNECTICUT TELCOM, L.L.C (COLLECTIVELY, CABLE CLECS)

The Cable CLECs assert that Connecticut is the only state in AT&T's region where the BCF exists and that this results in a TTS rate which is inflated and higher than all other states by nearly a full order of magnitude.[39] In comparing AT&T's TTS rates to those from various states and interstate/intrastate access rates, the Cable CLECs contend that the Telco's TTS rates are out of line with other benchmarks and are unreasonable.[40] The Cable CLECs provided under protective order, a proposed revised CLEC TTS rate.[41]

Moreover, Cable CLECs state that AT&T does not perform the BCF and does not provide this function regardless of the type of TTS (e.g., local or intraLATA toll).[42] The Cable CLECs claim that they have default bill-and-keep arrangements with other carriers for local calls which eliminates the need for the BCF for local transit calls.[43] The BCF is also unnecessary for intraLATA toll calls because the terminating carrier bills them for terminating access directly.[44]

Furthermore, the Cable CLECs contend that AT&T's proposed average compensation expense consists of an unsupported estimate and the Telco has failed to provide actual amounts paid to terminating carriers or produced bills from terminating CLECs which reflect the amounts paid on behalf of originating carriers.[45] Therefore, according to the Cable CLECs, the average BCF compensation expense is not transparent and cannot be validated.[46] The Cable CLECs suggest that the Department eliminate the BCF costs from the TTS study or that it be offered by AT&T as an optional add-on.[47]

Regarding AT&T's proposed switching costs, the Cable CLECs take issue with the Telco's calculation of costs using a mix of replacement and growth lines/trunks since the Telco has not provided any support for the mix that it currently uses.[48] The Cable CLECs also expressed their concern that the Telco used a particular form of contract with Nortel and Lucent, rather than engineering or economic factors, as the primary cost driver in the switching cost study.[49] In the opinion of the Cable CLECs, the following items support their contention that AT&T's tandem switching costs are inflated: (1) AT&T's tandem switching costs are substantially greater than the interstate access tandem switching costs; (2) AT&T's assumption that tandem costs are driven by

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[39] Cable CLECs Brief, pp. 8 and 9; Pelcovits PFT, p. 7.
[40] Pelcovits PFT, pp. 16 and 18.
[41] Cable CLECs Reply Brief, p. 1. The Cable CLECs recommend that the CLEC TTS rate be available to all CLECs purchasing TTS, whether pursuant to tariff, commercial agreement, or interconnection agreement. Id., p. 7.
[42] Cable CLECs Brief, pp. 4 and 5.
[43] Tr. 10/29/09, p. 702.
[44] Cable CLECs Brief, p. 5.
[45] Id., pp. 6, 8.
[46] Id., p. 7.
[47] Pelcovits PFT, pp. 8 and 9, 11.
[48] Id., p. 13.
[49] Id.

"growth" when the tandem can be sized to handle large growth of traffic when it is first installed; and (3) AT&T's proposed costs being at odds with the cost of switching equipment reductions experienced in the industry.[50]

Finally, the Cable CLECs assert that if TSLRIC is applied properly, there should be no need to add a substantial mark-up to recover unallocated overhead or J&C costs.[51] Accordingly, the Cable CLECs urge the Department to be mindful about the potential for AT&T to double-recover its costs through the J&C cost factor.[52]

D. SPRINT NEXTEL CORPORATION (SPRINT)

Sprint asserts that AT&T's cost studies fail to comply with federal requirements and Department precedent. First, AT&T's cost studies are not auditable.[53] In support of this claim, Sprint points to its testimony about the need for cost studies to be traceable, as well as the difficulty experienced by Sprint and the Cable CLECs in reviewing the studies.[54] Second, AT&T's witness was unable to answer questions about the cost study and admitted that he was not an expert with some of the models.[55] Therefore, Sprint recommends that AT&T's cost studies be rejected outright.[56]

Sprint also contends that AT&T's cost studies fail to comply with TSLRIC pricing principles. Sprint recommends setting AT&T's Recip Comp and TTS rates based on benchmarks. Specifically, Sprint suggests a $0.0007 per MOU rate for Recip Comp and a rate for TTS that is no higher than that charged in Michigan.[57] Additionally, Sprint contends that AT&T's cost studies are not forward-looking, because they exclude soft switch technology. According to Sprint, developing costs that use the most efficient technology and configurations and use the "long run" time horizon, as required by TSLRIC, requires that soft switches be included in the studies. Sprint claims that what is required by this rule is the location of the equipment to be considered, but not the equipment currently in place.[58] Therefore, according to Sprint, it is irrelevant whether AT&T has actually deployed soft switches in its network or has plans to do so in the near future; rather, for the purposes of a TSLRIC compliant cost study, it is essential for soft switches to be used whether they are in place or not.[59] Sprint also refers to AT&T's "Hultquist Letter" in which AT&T Services, Inc. advocated in the FCC's Intercarrier Compensation docket estimating the per MOU cost of inter-carrier compensation using soft switches, which produces a lower cost than what AT&T proposes here.[60] Sprint also notes that the local exchange routing guide (LERG) contains data which indicates

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[50] Id., pp. 13 and 14.
[51] Id., p. 18.
[52] Cable CLECs Brief, p. 4.
[53] Sprint Brief, p. 10.
[54] Id., p. 11; Farrar PFT, p. 22.
[55] Sprint Brief, p. 12.
[56] Id.
[57] Farrar PFT, p. 29.
[58] Sprint Brief, p. 13.
[59] Id., pp. 16 and 17.
[60] Id., pp. 17 and 18; Farrar PFT, pp. 12-14. The Hultquist Letter was attached to Farrar's PFT as Attachment A.

the presence of soft switches in Connecticut.[61] Therefore, Sprint concludes that AT&T's cost studies are not a compliant, forward-looking cost model given they are devoid of soft-switch technology.[62]

III. DEPARTMENT ANALYSIS

The purpose of this proceeding is to establish cost-based rates for AT&T's Recip Comp and TTS services.[63] The Department's analysis of the Telco's July 17, 2009 cost of service studies is as follows.

A. AT&T'S PROPOSED RATES

AT&T proposes the following rates for Recip Comp and TTS.[64]

Rate Element	AT&T Proposed Rate (per MOU)
TTS (CLEC)	$0.016347
TTS (Wireless)	$0.003000
Recip Comp (Tandem Routed)	$0.002933
Recip Comp (End Office Routed)	$0.001861

There are two separate TTS rate elements at issue. The TTS (CLEC) rate applies to transit traffic originated by CLECs and the Transit (Wireless) rate applies to wireless-originated transit traffic. The primary difference between the two rates is an average compensation expense (or BCF) component that is included in the TTS (CLEC) rate and not in the TTS (Wireless) rate.[65]

There are also two separate Recip Comp rate elements at issue. The Recip Comp (Tandem Routed) rate element applies to carriers interconnected at the AT&T tandem, while the Recip Comp (End Office Routed) rate element applies to CLECs interconnected at the Telco's end office. The latter rate element applies only to CLECs because wireless carriers do not interconnect at the AT&T end office.[66]

1. Recip Comp

The Federal Communications Commission (FCC) defines Recip Comp in 47 C.F.R. § 51.701(e):

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[61] Sprint Brief, p. 18; Tr. 09/23/09, pp. 592-594.

[62] Farrar PFT, pp. 22 and 23.

[63] The Department has concluded that cost-based rates be established for TTS. October 7, 2009 Decision in Docket No. 08-12-04 Petition of Youghiogheny Communications-Northeast, LLC d/b/a Pocket Communications For a Declaratory Ruling That the Southern New England Telephone Company d/b/a AT&T Connecticut is in Violation of Section 16-247b of the Connecticut General Statutes and the Department's Orders in Docket No. 02-01-23 Relating to Transit Traffic and Federal and State Laws and Regulations Relating to The Transit Traffic Factor.

[64] Pellerin PFT, pp. 7 and 8, 24, 29.

[65] Mollet PFT, p. 22.

[66] Id., p. 7.

> Reciprocal compensation. For purposes of this subpart, a reciprocal compensation arrangement between two carriers is one in which each of the two carriers receives compensation from the other carrier for the transport and termination on each carrier's network facilities of telecommunications traffic that originates on the network facilities of the other carrier.

Two key terms in the definition of Recip Comp are "transport" and "termination," and the FCC defines these terms in 47 C.F.R. § 51.701(c) and 47 C.F.R. § 51.701(d), respectively:

> Transport. For purposes of this subpart, transport is the transmission and any necessary tandem switching of telecommunications traffic subject to section 251(b)(5) of the Act from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party, or equivalent facility provided by a carrier other than an incumbent LEC.
>
> Termination. For purposes of this subpart, termination is the switching of telecommunications traffic at the terminating carrier's end office switch, or equivalent facility, and delivery of such traffic to the called party's premises.

AT&T defines Recip Comp as the charges paid by one telecommunications carrier (Carrier A) to another (Carrier B) to compensate for the transport and termination of calls that originate with Carrier A's end users and terminate to Carrier B's end users.[67] Carriers can opt to charge each other for Recip Comp or they can implement a "bill-and-keep" arrangement[68] in which they opt to not charge each other for Recip Comp. AT&T has opted to charge a default Recip Comp rate of $0.0007 per MOU throughout its ILEC territory, except in Connecticut where it is proposing Recip Comp rates of $0.002933 per MOU for tandem routed traffic and $0.001861 for end office routed traffic.

2. TTS

Transiting occurs when two carriers that are not directly interconnected exchange local traffic by routing the traffic through an intermediary carrier's network. Typically, the intermediary carrier is the ILEC and the transited traffic is routed from the originating carrier through the incumbent LEC's tandem switch to the terminating carrier. The intermediary (transiting) carrier then charges a fee for use of its facilities.[69]

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[67] Pellerin PFT, p. 3; Mollet PFT, p. 18.

[68] 47 C.F.R § 51.713(a) defines a bill-and-keep arrangement as those arrangements in which neither of the two interconnecting carriers charges the other for the termination of telecommunications traffic that originates on the other carrier's networks.

[69] In the Matter of Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, Further Notice of Proposed Rulemaking, Federal Communications Commission, 20 FCC Rcd 4685; 2005 FCC LEXIS 1390, FCC 05-33, rel. March 3, 2005 (ICF FNPRM), ¶ 120.

TTS is a service that allows an originating carrier to utilize the network of an intermediate carrier to indirectly connect to one or more terminating carriers.[70] TTS enables all providers of voice services in Connecticut to exchange traffic without having to establish direct connections with each other.[71] In a transiting arrangement, the originating carrier compensates the transiting carrier in this case, AT&T, for the transiting function performed. The compensation that takes place between the originating carrier and the third party terminating carrier depends on the arrangements in place and the type of transit traffic. For example, if the TTS is local and the originating and terminating carriers have a bill-and-keep Recip Comp arrangement, then there would be no money exchanged between them for the termination of a transit call. However, if the originating and terminating carriers have a Recip Comp rate that applies, then the prevailing arrangement in the industry is for the originating carrier to pay the terminating carrier the appropriate Recip Comp rate for the local transit traffic.[72] Similarly, if the transit traffic is intraLATA toll transit, the originating carrier would be responsible for paying the ILEC applicable transit charges and would also be responsible for paying the terminating carrier the appropriate intrastate access charges. AT&T proposes a TTS rate for CLECs of $0.016347 per MOU and a TTS rate for wireless carriers of $0.003 per MOU.

B. COST METHODOLOGY

AT&T states that its Recip Comp and TTS cost studies are consistent with the TSLRIC requirements established by the June 15, 1995 Decision in Docket No. 94-10-01.[73] The parties agree that the TSLRIC cost methodology adopted in Docket No. 94-10-01 is identical to the TELRIC cost methodology adopted by the FCC for pricing interconnection and unbundled network elements (UNEs).[74] The FCC has expressly stated that TSLRIC and TELRIC are the same methodologies.[75] Therefore, the Department will continue to rely on TSLRIC requirements as well as the FCC's TELRIC pricing rules (47 C.F.R. Part 51 Subpart F) for evaluating whether AT&T's cost studies produce "just and reasonable" results.[76]

However, the Department disagrees with certain views expressed by the parties about these costing methodologies. First, the Department disagrees with AT&T's assertion that the technology used in its cost studies must be "committed for deployment in the near term in accordance with approved modernization initiatives and

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[70] Pellerin PFT, p. 8.

[71] Pelcovits PFT, p. 5.

[72] Connecticut is the only state in AT&T's 22-state ILEC territory where it provides the BCF and the Telco pays the terminating carrier for termination of transit traffic on behalf of the originating carrier.

[73] Tr. 09/21/09, pp. 38 and 39.

[74] Pelcovits PFT, p. 18; Tr. 09/22/09, pp. 448 and 449; Tr. 09/23/09, p. 621.

[75] In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, First Report and Order, CC Docket Nos. 96-98, 95-185; FCC 96-325, August 8, 1996 (Local Competition Order), p. ¶ 678. In adopting TSLRIC as the basis for pricing interconnection and UNEs, the FCC coined the term "total element long run incremental cost" to describe its version of this methodology.

[76] Section 252(d)(1) of the Telcom Act requires rates for UNEs to be "just and reasonable." Section 252(d)(2) also requires rates for transport and termination (or Recip Comp) to be "just and reasonable."

construction programs."[77] AT&T maintains that the Department set this "standard" in its June 15, 1995 Decision in Docket No. 94-10-01.[78]

The June 15, 1995 Decision in Docket No. 94-10-01 listed the cost methodology principles established by the Department.[79]

- assign costs based on cost causation;
- be documented in a manner that the source of the data can be audited;
- must be forward-looking in perspective;
- must distinguish among costs incurred on behalf of noncompetitive, emerging competitive and competitive services;
- must provide an accurate means of measuring incremental cost for services;
- must recognize the effect of broader market participation on the goals of establishing equitable and reasonable rates;
- must provide consideration to both Fully Distributed Costs (FDC) and Long-Run Incremental Cost (LRIC);
- must promote economic efficiency (i.e., should maximize the utilization of existing resources);
- must preclude any remaining noncompetitive services from being allocated costs otherwise properly attributable to competitive services;
- must allow the burden of common costs, such as general overhead, to be shared fairly by all users; and
- must not pose an undue administrative and financial burden on the company required to perform it.

The Department did not establish "committed for deployment" as a costing principle or standard. That language, relied upon by AT&T, is not found in the list of Department costing principles above.[80] Rather, that language was within AT&T's position statement offered in Docket No. 94-10-01 which was not adopted by the Department in that Decision.[81] The Department also rejects AT&T's assertion that since the Department approved the Telco's cost methodology in the Docket No. 94-10-01 Decision, it also approved AT&T's position statement. In adopting long run cost studies, the Department utilized those studies as a guide to establish a minimum floor for a rate level and not a wholesale adoption of all of AT&T's assumptions, inputs, and positions underlying them.

In addition, the Department disagrees with Pocket that AT&T's cost study is a marginal cost study.[82] The Department directs Pocket's attention to the Local Competition Order wherein TSLRIC was defined by the FCC as an average cost methodology:

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[77] AT&T Response to Interrogatory TE-38; Mollet PFT, p. 11.
[78] Mollet PFT, p. 11.
[79] June 15, 1995 Decision in Docket No. 94-10-01, Finding of Fact No. 2.
[80] Tr. 10/29/09, pp. 817 and 818.
[81] Tr. 09/21/09, pp. 188 and 189; Tr. 09/22/09, pp. 423 and 424.
[82] Benedict PFT, p. 23.

> 677. The term "long run," in the context of "long run incremental cost," refers to a period long enough so that all of a firm's costs become variable or avoidable. The term "total service," in the context of TSLRIC, indicates that the relevant increment is the entire quantity of the service that a firm produces, rather than just a marginal increment over and above a given level of production. Depending on what services are the subject of a study, TSLRIC may be for a single service or a class of similar services. TSLRIC includes the incremental costs of dedicated facilities and operations that are used by only the service in question. TSLRIC also includes the incremental costs of shared facilities and operations that are used by that service as well as other services. (Emphasis added.)

As noted above, a marginal cost approach is not correct for these purposes and a TSLRIC study should calculate average costs.

C. AT&T's Cost Studies Versus Benchmark Rates

Pocket and Sprint recommend rejecting AT&T's cost studies outright and setting the following benchmarks for AT&T's rates: 1) $0.000454 per MOU for TTS (based on the AT&T-Michigan rate) and 2) $0.0007 per MOU for Recip Comp (based on the rate AT&T charges in all other states).[83] Pocket also recommends that the Department freeze AT&T's Recip Comp and TTS rates at the benchmarks for five years.[84] Pocket states that absent this restriction, AT&T will continue to file non-compliant cost studies ad infinitum and force parties to expend tremendous resources participating in cost study proceedings.[85]

AT&T urges the Department to reject the parties' benchmarking proposals because they are incomplete and unsupported. AT&T asserts that these rates are not cost-based, not the result of a TSLRIC cost study and not forward-looking cost of the Telco.[86] Moreover, AT&T contends that the Telcom Act does not allow state commissions to freeze rates or prevent an ILEC from seeking different rates when warranted.[87] AT&T asserts that Pocket has demonstrated no need for a rate freeze and that it could negotiate one with the Telco at any time.[88]

The Department has reviewed AT&T's July 17, 2009 cost of service study filing and finds that initially it could not be analyzed in any level of detail. AT&T had a minimum of 100 days to file a Recip Comp cost study and 78 days to file a TTS cost study, respectively. The information that AT&T filed, in support of its Recip Comp and TTS studies, consisted of a single Excel spreadsheet for each service containing only

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[83] Pocket Brief, p. 5; Sprint Brief, pp. 19-21.
[84] Pocket Brief, p. 25.
[85] Id., p. 25.
[86] AT&T Brief, p. 49.
[87] AT&T Reply Brief, p. 38.
[88] Id., p. 38.

summary cost information. Such information failed to meet the requirement established in Docket No. 94-10-01 for cost studies to be documented in a manner that the source of the data can be audited.

It was not until August 11, 2009, in responses to interrogatories, that AT&T provided any legitimate cost support information which allowed for the source data to be audited. The Department finds that even then, it was difficult to understand AT&T's explanation as to how these various spreadsheets should be utilized in order to understand the costs that were in the July 17, 2009 filings.[89] AT&T also failed to provide complete and detailed cost studies that allowed the parties only a minimum amount of time to evaluate the Telco's filing and develop their testimony. See for example, the Department's request for the model supporting AT&T's J&C on July 28, 2009. AT&T did not provide that study until September 17, 2009, only after the Department requested the study a second time. This delay resulted in the Department and the parties receiving the J&C study only four calendar days (including a weekend) before the evidentiary hearing began.[90] In sum, the Telco's failure to provide its cost studies on a timely basis negatively impacted the Department and the parties' ability to thoroughly analyze AT&T's cost studies.

The incomplete cost studies were further exacerbated by AT&T's inadequate job of supporting them during cross-examination. Pursuant to §16-22 of the General Statutes of Connecticut (Conn. Gen. Stat.), a public service company has the burden of proof to demonstrate that the rate it is proposing is just and reasonable. Since the cost studies were the basis for the proposed rates, AT&T, not the other parties, had the burden to demonstrate to the Department that the cost studies were accurate. The testimony of the AT&T witnesses was decidedly deficient as the basis for the validity of the cost studies. For example, AT&T's cost expert witness testified that he personally participated in developing the studies,[91] but experienced difficulty in navigating the cost study during the hearing,[92] could not verify the veracity of various study inputs,[93] and at one time denied he was an expert on some of the cost models which he sponsored.[94] AT&T's cost witness also indicated that he did not personally review the entirety of the studies before submitting them.[95] Clearly, AT&T's lack of familiarity with the Telco cost studies did little to elucidate the record on the accuracy of the costs submitted on July 17, 2009.

Not only is AT&T required to provide cost studies that are documented in a manner that the source data can be audited, the Telco also has an obligation under 47 C.F.R. § 51.505(e) to "prove to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the

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[89] Various parties also raised their concerns regarding AT&T's cost of service studies as not being auditable, not supportive and expressed concerns over the time delay constraints they experienced to review the cost inputs information. Tr. 09/22/09, pp. 412-422; Tr. 09/23/09, pp. 650, 711.

[90] The Department permitted the parties to cross examine the Telco witness on the J&C study at the LFE hearing.

[91] Mollet PFT, p. 2.

[92] Tr. 09/22/09, pp. 324 and 325.

[93] Tr. 09/21/09, p. 266; Tr. 09/22/09, p. 312.

[94] Tr. 09/21/09, p. 266, 272; Tr. 09/22/09, p. 325.

[95] Tr. 09/22/09, p. 335.

element, using a cost study that complies with the methodology set forth in this section and § 51.511." AT&T did not do so.

TSLRIC cost studies are complex and must be analyzed in detail to determine whether the inputs and algorithms produce reasonable results and to produce a complete record on which the Department can base its decision. The Department had the option to halt the proceeding and reject the Telco's cost studies upon reviewing AT&T's cost information and identifying AT&T's shortfall mentioned above. However, the Department did not do so for several reasons. The Department is loathe to reject AT&T's cost studies outright based on recommendations from parties to adopt rates from other states since those recommended rates are not cost-based and not Connecticut-specific. The Department also determined that it would continue the investigation allowing AT&T additional opportunities to present and support its studies and the parties to review them. In addition, it was in the public interest to continue the proceeding since a substantial amount of time and resources had been expended by all of the parties. Most importantly however, was that with the exception of the modifications described below, AT&T's cost studies can be relied upon as a guide to develop Recip Comp and TTS rates. Specifically, notwithstanding AT&T's tardiness and difficulty supporting its cost studies under cross examination, the Department finds the models and algorithms used in the cost models are acceptable (i.e., the SICAT and the signaling cost tool (SigCost)). Further, there were no specific concerns raised about the third model, the interoffice cost analysis tool (ICAT). Consequently, the Department will use AT&T's cost models to develop cost-based rates for these services.

D. COST STUDY INPUTS & ASSUMPTIONS

The Department has reviewed the parties' positions regarding the cost study inputs and assumptions. The following addresses the various issues raised regarding the proposed cost studies.

1. BCF

AT&T asserts that the BCF cost (or average compensation expense) represents the average expense per minute of use based on the Telco's payment of intercarrier compensation (local Recip Comp and terminating switched access) to the terminating third party carrier on behalf of the originating carrier.[96]

The BCF is substantial and it is the single largest component of the CLEC TTS cost study.[97] The support AT&T provided for the average compensation expense is illustrated in the Telco's response to Interrogatory TE-6, TE-6_Duration_Compensation Expense_Compensation Percentage.xls. This file indicates that there are five carriers which do not have bill-and-keep Recip Comp arrangements with AT&T. It is these compensation expenses billed to AT&T by terminating carriers, that make up the Telco's proposed average compensation expense.

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[96] AT&T Response to Interrogatory SPT-AT&T-1-9(b).

[97] AT&T July 17, 2009 Study, CLEC Transit Cost Study, File: Transit_CT_CLEC_7-71-09.xls, Tab Transit BOC, compare excel row 29 (line 14) to excel row 35 (line 17).

Connecticut is the only state in AT&T's 22-state region where the Telco provides the BCF.[98] In the other states, AT&T offers billing information to the terminating carriers so that they can bill originating carriers directly (instead of serving as a middleman).[99] The BCF has been included in the Telco's transit offering since it was originally developed in 1995. The Telco's witness was unable to recall why the BCF was originally designed in this fashion.[100] However, the record indicates that the reason for the BCF was to overcome the limitations in AT&T's billing systems which prevented the Telco from passing billing detail to the terminating carrier so that the originating carrier could be billed directly.[101]

The Department is of the opinion that the BCF should be eliminated from AT&T's TTS (CLEC) cost study for several reasons. First, the BCF was initially developed due to the limitations in the Telco's systems, limitations that have not been addressed by AT&T for more than a decade after the offering was originally developed. Rather than increasing the BCF rates, the Telco should address the system limitations that have prohibited it from implementing a billing arrangement in Connecticut similar to which its affiliates use in the other states where transit is provided. Moreover, as evidenced by a comparison of AT&T's proposed TTS (CLEC) rate to the TTS (Wireless) rate as well as those rates in the other AT&T states, a solution that allows the terminating carrier to bill the originating carrier for transit traffic is more efficient than the BCF. In the opinion of the Department, the BCF is based on embedded costs that should not be recovered in a proper forward-looking cost study.

Also, AT&T's BCF may not be necessary for the CLECs. AT&T passes the CLEC-originated transit call stream to the third party terminating carrier unaltered.[102] That information should provide the billing detail required by the terminating carrier to bill the originating carrier directly.[103] To the extent a terminating carrier may require additional information to bill the originating carrier, the Telco can provide that information.[104]

Further, for intraLATA toll transit traffic, third party terminating carriers can use Category 11 records or call detail records from call signaling to bill originating carriers, thereby eliminating the need for AT&T to perform the BCF for intraLATA toll TTS. Regarding AT&T's assertion that the BCF is necessary because it is billed for termination of more intraLATA toll traffic than the Telco originates, the Telco has the opportunities to dispute the bills (and it has done so) in those cases. Because AT&T's BCF is not based on actual billings or payments for TTS termination, the Telco failed to demonstrate that it actually paid these amounts on behalf of the originating carrier.

Similarly, for local TTS, AT&T ignores the fact that if an originating CLEC has a bill-and-keep arrangement with the terminating CLEC, no money should be exchanged

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[98] Tr. 09/21/09, pp. 61 and 62; Response to Interrogatory TE-50.
[99] Tr. 09/21/09, p. 62.
[100] Id., p. 25.
[101] Tr. 09/22/09, pp. 432 and 433.
[102] Tr. 09/21/09, pp. 64-66.
[103] Tr. 09/23/09, pp. 689-691.
[104] Tr. 09/21/09, pp. 64-66.

for the termination of that local TTS. Thus, AT&T's BCF effectively trumps the Recip Comp arrangement established separately between the originating and terminating carrier. AT&T's BCF forces the CLECs to pay as if money does in fact, exchange hands for traffic exchanged by those parties. In the opinion of the Department, bill-and-keep arrangements have been entered into due to operational/billing efficiencies,[105] and AT&T's BCF eliminates those benefits for Connecticut CLECs.

The Department also finds that AT&T's BCF proposal violates cost causation principles by forcing the originating carriers to pay for termination charges that they would not otherwise pay but for the Telco's actions. The Department finds that costs of the BCF are caused by AT&T's limitations in Connecticut and not the CLEC originating transit traffic. The record indicates that the Telco can implement in Connecticut the same process it uses for compensation of TTS in every other AT&T state.[106] In the opinion of the Department, since AT&T's BCF was developed 14 years ago,[107] it is due time for the Telco to implement the same processes used in other states. If implemented, the BCF would be eliminated as would the costs associated with that function.[108]

The Department concurs with the Cable CLECs that the data AT&T provided in support of the BCF lacks transparency and cannot be audited. This data is not based on actual billings from terminating carriers for TTS originated by a CLEC. Instead, it is based on the Telco's Recip Comp arrangements with those carriers. There is no basis for the Department to conclude that the cost AT&T is attempting to recover via the BCF is representative of what it may actually pay to terminating carriers for CLEC-originated transit traffic. AT&T has not demonstrated that its proposed BCF cost is just and reasonable. When comparing AT&T's proposed Connecticut TTS (CLEC) rate to transit rates in other states, the Telco's TTS rate significantly exceeds those in all the other states. The Connecticut rate is almost double that of the second highest AT&T TTS rate on the record in Nevada. The Department will not approve a cost element that has such a dramatic impact on AT&T's TTS (CLEC) rate based on information that is not transparent and cannot be audited to determine its reasonableness.

In its January 15, 2003 Decision in Docket No. 02-01-23 Petition of Cox Connecticut Telcom, L.L.C. for Investigation of the Southern New England Telephone Company's Transit Service Cost Study and Rates, the Department required the Telco to develop a TTS offering that mirrors the transit offerings currently offered by its affiliates in other states (i.e., one that does not include the BCF)[109] and to price that new offering at TSLRIC-based rates with a reasonable mark-up.[110] The Department also concluded that this new offering should not replace the Telco's TTS offering with BCF, but should be a complement.[111] On December 8, 2004, the Department reopened the January 15,

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[105] Pelcovits PFT, p. 10; September 1, 1995 Decision in Docket No. 94-10-02.
[106] Tr. 09/21/09, pp. 65 and 66.
[107] Id., p. 60.
[108] Id., pp. 65 and 66.
[109] January 15, 2003 Decision in Docket No. 02-01-23, p. 15.
[110] Id.
[111] Id.

2003, Decision in light of an Appellate Court Order.[112] In addition, by draft Decision dated December 22, 2004, the Department amended its January 15, 2003 Decision by deleting Orders No. 1 and No. 2, that required AT&T to reduce its TTS rates and file a new TTS offering (one that does not include the BCF). In doing so, the Department required the parties to negotiate interconnection agreements with AT&T pursuant to §252 of the Telcom Act that addressed the TTS issues raised in response to the Findings and Conclusions reached in the January 15, 2003 Decision. The evidence submitted in this proceeding demonstrates that the parties have been unsuccessful in negotiating a mutually agreeable offering. Moreover, the record indicates that the stark disagreement between AT&T and the CLECs shows that further negotiations on this issue would likely not be successful. Thus, the Department has determined that AT&T should establish a TTS offering that does not include a BCF.

The Cable CLECs have indicated that they do not use the BCF and are indifferent as to whether it should be eliminated altogether.[113] However, the record does not indicate whether all CLECs in Connecticut share that position. Specifically, there are a number of CLECs that do not have bill-and-keep as their default Recip Comp arrangement[114] and not all of them offered testimony in this proceeding. The Department is concerned that eliminating the BCF altogether could have a detrimental impact on those CLECs and could potentially lead to a break down in the process that compensates terminating carriers and AT&T for functions that they perform for TTS. Therefore, the Department concludes, consistent with its Decision in Docket No. 02-01-23, that AT&T should make available a complementary TTS offering which includes the BCF at TSLRIC-based rates. The Department finds that CLECs who use the BCF should negotiate with AT&T for this offering. The Department will intervene after all other options have been exhausted and when all reasonable attempts to negotiate and resolve issues have reached an impasse.

AT&T asserts that it is not practical to provide the BCF on an optional, add-on basis because the Telco would have to keep track of those CLECs which use the BCF. AT&T further asserts that with the number of CLECs exchanging traffic, it would become an administrative nightmare.[115] The Department disagrees and finds that this is not a sufficient basis for charging CLECs for something that they do not use, particularly when the BCF is provided due to AT&T's limitations. Moreover, the evidence shows

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[112] Subsequent to the issuance of the January 15, 2003 Decision, the Department became aware of Verizon North Inc. v Strand, 367 F.3d 577 (6th Cir. 2004) and Indiana Bell Company, Inc. v. Indiana Utility Regulatory Commission, 359 F.3d 493 (7th Cir. 2004), collectively, the Appellate Court Orders, issued by the Sixth and Seventh Circuit Court of Appeals, respectively. In those orders, the United States Court of Appeals in the Sixth and Seventh Circuits separately faulted the Michigan Public Service Commission and the Indiana Utility Regulatory Commission, respectively, for issuing orders that were inconsistent with the interconnection negotiation agreement provisions of the Telecommunications Act of 1996. In particular, the Michigan and Indiana Commissions, in their respective jurisdictions, imposed on the incumbent local exchange carriers certain requirements without first permitting them the opportunity to successfully negotiate an interconnection agreement with their competitors pursuant to §252 of the Telcom Act.

[113] Tr. 09/23/09, p. 702.

[114] AT&T Response to Interrogatory TE-6, File: TE-6_Duration_Compensation Expense_Compensation Percentage.xls. Tab local clec. This information is based on CLECs' Recip Comp arrangements with AT&T, not other CLECs.

[115] Tr. 09/21/09, pp. 30 and 31.

that the Telco keeps track of applicable Recip Comp arrangements,[116] and the cost of service study provided[117] indicates that AT&T already tracks the CLECs that employ bill-and-keep arrangements and those that do not.[118]

Finally, the record indicates that TSLRIC-based rates for TTS should not include the BCF since this cost reflects embedded costs that the Telco would avoid if it employed a more efficient process. A more efficient process already exists that AT&T has demonstrated to be technically feasible in the other states where it operates and one that the Telco acknowledges could be implemented in Connecticut.

2. Soft Switches

Soft switches (or packet switches) are telecommunications switches that utilize an Internet Protocol-(IP) based transmission technology instead of the Time Division Multiplexing (TDM) based transmission technology used by digital telecommunications switches. The switching network modeled in AT&T's cost studies reflects an all digital (or TDM) switch network and does not assume the use of soft switches. AT&T maintains that it has no soft switches in its ILEC network in Connecticut or in any other state and has no plans to deploy them in the future. AT&T also maintains that it considered soft switches but decided not to include them in its cost studies because they were not "committed for deployment" pursuant to the Decision in Docket No. 94-10-01.[119]

The Department is troubled by the inconsistency between AT&T's position on the issue of soft switch technology in Connecticut and the positions proffered at the FCC and in other states. On the one hand, AT&T advocates the use of soft switches in developing Recip Comp costs for carriers because they produce lower costs, but rejects the use of soft switches in its Connecticut cost studies. In addition, AT&T has informed the FCC that the traffic-sensitive investment in soft switches ranges from between 0% and 20%, while the information submitted in this proceeding indicates that its percentage of traffic sensitive switching costs is significantly higher.[120] Further, while AT&T acknowledges that local carriers are increasingly deploying next generation packet-based IP-based networks to carry voice and other traffic, it ignores the fact that it is one of the largest telecommunications carriers in the U.S and has not deployed any soft switches in Connecticut nor in the other 21 states where it currently operates as an ILEC.

Nevertheless, the Department finds that when conducting a TSLRIC cost study, there is a fine line between estimating forward-looking costs using the most efficient technology available and the lowest cost network configuration versus estimating entirely hypothetical costs that have no basis in relation to the ILEC. While the record indicates that soft switching technology is available, if employed, the Telco can only

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[116] Tr. 09/21/09, pp. 56 and 57.

[117] AT&T Response to Interrogatory TE-6, TE6_Duration_Compensation Expense_Compensation Percentage.xls.

[118] Id., Tab Local CLEC shows nine bill-and-keep CLECs and five non-bill-and-keep CLECs.

[119] Mollet PFT, p. 11; Tr. 10/29/09, p. 814.

[120] AT&T Response to Interrogatory COM-11.

begin deploying soft switches as a hybrid network in conjunction with its existing circuit based switches. Such a hybrid network would require a seamless transmission of switched traffic encompassed with ancillary facilities and costs for the protocol conversions. Thus, while on a standalone basis soft switches are presumably more efficient (and lower in cost) than the legacy circuit switches in the ILEC networks, there is no evidence in the record that a hybrid network of soft switches and circuit switches is necessarily the least cost configuration for AT&T in Connecticut at this time.

Paragraph 685 of the FCC's Local Competition Order discusses the technology to be used in a forward-looking cost study as follows:

> 685. Under the third approach, prices for interconnection and access to unbundled elements would be developed from a forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations. This approach mitigates incumbent LECs' concerns that a forward-looking pricing methodology ignores existing network design, while basing prices on efficient, new technology that is compatible with the existing infrastructure. This benchmark of forward-looking cost and existing network design most closely represents the incremental costs that incumbents actually expect to incur in making network elements available to new entrants. Moreover, this approach encourages facilities-based competition to the extent that new entrants, by designing more efficient network configurations, are able to provide the service at a lower cost than the incumbent LEC. We, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements 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.

Based on the above, the most efficient technology must be available to the industry as well as "compatible with the existing infrastructure." There is no information on the record which indicates that replacement of all of AT&T's digital switches with soft switches would be operationally feasible or compatible with the Telco's existing infrastructure. The fact that AT&T is not using soft switches and has no plans to use them in the foreseeable future raises questions as to whether the mere availability of soft switches necessarily translates into operational feasibility or compatibility with the Telco's existing infrastructure. The Department is also concerned that requiring AT&T to use a technology that it has no plans to use could discourage facilities-based competition. As noted above, the FCC intended for its "most efficient technology" objective to encourage facilities-based competition by new entrants to design more efficient networks at a lower cost than the ILEC. The Department concludes that its approach to setting AT&T's switching costs, absent soft switches, meets that objective.

Given that AT&T has not deployed any soft switches in its 22-state ILEC region, and that it has no plans to deploy any in the future,[121] requiring AT&T to assume the presence of soft switches in its cost study, in the absence of any reliable pricing information or vendor contracts for switches, would result in an entirely hypothetical network at this time. The Department finds that such an outcome would calculate costs that are unlikely to accurately reflect the forward-looking costs AT&T would incur in providing Recip Comp and TTS. Additionally, even if AT&T were to have plans to deploy some soft switches, the cost studies would have to reflect a hybrid network of soft switches and circuit switches, which may not necessarily result in lower overall costs due to the possible integration of circuit and soft switches.

Therefore, the Department will not require AT&T to assume the presence of soft switches in its Recip Comp and TTS studies at this time. Accordingly, Pocket's recommendation to reduce AT&T's switching costs by one-third is hereby denied as are the Sprint and Pocket recommendations to reject AT&T's cost studies outright.

3. Replacement/Growth Weighting

AT&T's switching cost studies are based on switch vendor contracts that provide switching at a per-line and per-trunk price. These contracts distinguish line and trunk prices based on "replacement" versus "growth" lines and trunks.[122] The mix of replacement-to-growth lines and trunks used in the SICAT model is a major switch cost driver because the price for growth lines and trunks is significantly higher than for replacement lines and trunks. Hence, a mix weighted more heavily in favor of replacement lines results in lower costs than a mix that is more heavily weighted in favor of growth lines.

AT&T maintains that its proposed replacement/growth mix was based on the most recent mix negotiated with vendors in 2000 (for the 2000-2004 timeframe) and projected demand for that same time period.[123] AT&T claims that its proposal is conservative because it has already replaced all of its analog switches in Connecticut.[124]

The Department finds that there is no basis to conclude that the Telco's proposed replacement/growth mix is reasonable or accurately reflects AT&T's forward-looking costs for switching. While the Telco claims that this weighting is the most

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[121] The LERG spreadsheets provided by Sprint show that AT&T currently has no soft switches in its ILEC public switched telephone network (PSTN). Only two soft switches are attributed to the AT&T ILEC companies. One of those is a remote switch that does not connect with the PSTN and the other is no longer operational and should be removed from the LERG. The numerous other soft switches are owned by AT&T Mobility, and there was no evidence submitted on the record to show that AT&T's ILEC companies could reasonably use the same switching network it uses for its wireless subsidiary. Tr. 10/29/09, pp. 834-837.

[122] These contracts also include "new" lines/trunks, which are similar to "replacement" lines.

[123] Tr. 10/29/09, pp. 792, 857; Mollet PFT, pp. 9 and 10.

[124] Mollet PFT, pp. 9 and 10.

recently negotiated mix with vendors for the 2000-2004 timeframe, it was unable to point to any support showing that this mix was actually negotiated with vendors.[125]

Nevertheless, even if the Telco negotiated a mix with the vendors in the 2000 timeframe, AT&T was not under a binding obligation to abide by that mix, as evidenced by its actual purchases of switching facilities which are very different. Additionally, the Department does not find that the Telco's proposed mix is reasonable since the data indicates a negative growth in lines/trunks since 2000.[126] Similarly, the Department does not find persuasive AT&T's argument that its proposed mix is conservative because there has been very little, if any, growth, with no growth forecasted over the 2000-2004 timeframe. This means that the majority of AT&T's switch facilities would have been purchased at "replacement" prices and not "growth" prices. This is true both as a historic fact as well as under a TSLRIC methodology. Accordingly, the Department finds AT&T's proposed mix is neither reflective of its actual historic purchases, nor does it produce accurate forward-looking costs filed in this proceeding.[127]

Furthermore, the Department disagrees with AT&T's claims that any change to its proposed replacement/growth mix would invalidate its contracts or ignore the tradeoff that occurs between replacement and growth line prices. Since AT&T has not purchased the mix of facilities it advocates in its cost study and does not intend to purchase lines in the foreseeable future, it is entirely unclear how adopting the Telco's proposed mix would impact its relationship with its vendors. Specifically, while the Telco's proposed mix would raise switching costs and possibly the Recip Comp and TTS rates and revenues, there is nothing in the record that suggests the vendors would benefit from AT&T's increased revenues or how vendors would be harmed by lower revenues. Moreover, higher Recip Comp and TTS rates could possibly cause demand for such services to decrease, which may lower the use of switching facilities and, as a result, further depress AT&T's purchases of growth facilities. Under this scenario, AT&T's vendors would actually be better served if the Telco lowered its Recip Comp and TTS rates and boosted demand for switching services and facilities. Accordingly, the Department finds AT&T's claims that the use of any line mix other than the one it proposed would violate the terms of its contracts is unsupported, at odds with historic and projected purchasing patterns and internally inconsistent.[128]

In its Virginia Arbitration Order,[129] the FCC adopted a mix of 88% new (similar to replacement) and 12% growth lines for end office switches and a weighting of 85% new

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[125] AT&T's vendor contracts do not currently require the Telco to purchase a certain number of growth lines in any particular time period. Tr. 10/29/09, pp. 791 and 792, 862.

[126] Id., pp. 857 and 858.

[127] Id., p. 844.

[128] The Department also notes that Late Filed Exhibit (LFE) No. 1 shows that other state commissions have modified AT&T's affiliates proposed mix by increasing the percentage of replacement lines.

[129] In the Matter of Petition of Worldcom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc., and for Expedited Arbitration, Memorandum Opinion and Order, CC Docket Nos. 00-218/00-251; DA 03-2738, released August 29, 2003 (Virginia Arbitration Order). Administrative notice was taken of this order and its appendices. Tr. 09/21/09, p. 85.

and 15% growth trunks for tandem switching.[130] These mixes were developed based on a present value analysis that considered an initial number of replacement/new facilities and then used a projected growth rate to calculate the mix of replacement/new versus growth facilities. Other inputs into the methodology were the cost of capital (for discounting purposes) and the economic life of the switch (to determine the period over which replacement/new and growth has to be evaluated).

At least 10 other state commissions in AT&T's territory have approved cost studies using a similar replacement/growth mix approach.[131] The replacement/growth mix approved in four states is 70/30, a mix of 53/47 in two states, a 45/55 mix in three states, and a 31/69 mix in one state.[132] All of the mixes shown on the LFE No. 1 were approved by state regulatory commissions in TELRIC/TSLRIC proceedings.[133] The Department finds that the new and growth line mixes in LFE No. 1 reflect a mix of 30% or more growth and are from a historic period which AT&T experienced a growth in lines. It would be inappropriate to adopt a mix now that assumes significant positive growth when the record shows a negative growth for AT&T not just historically, but for the future as well. Thus, the Department will not use a mix previously approved by other commissions. Rather, the algorithm approach from the Virginia Arbitration Order is an improvement over AT&T's approach because the underlying inputs can be verified, are Telco specific, and the mix is derived via an objective algorithm rather than the subjective beliefs of an AT&T witness.

The Department also finds the mixes approved in the Virginia Arbitration Order are based on positive growth rates of 2.5% and 3% and cost of capital and economic life inputs that are different from what AT&T proposes here.[134] Therefore, the Department has calculated a replacement/growth mix using the algorithm adopted in the Virginia Arbitration Order and the cost of capital and depreciation inputs proposed by AT&T. The Department will also assume a 3% growth rate, which is a conservative assumption given the data, showing actual and forecasted negative growth rates for AT&T in Connecticut. This growth rate assumption is consistent with the growth rate adopted in the Virginia Arbitration Order. Accordingly, the Department will direct AT&T to re-run its cost studies by employing a mix of 85.1% replacement and 14.9% growth in the SICAT model.[135]

The Department also directs AT&T to correct a computational error in the SICAT. Specifically, there are errors in the cell links in SICAT Tab LU BOC, cells E68 and E69.

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[130] Virginia Arbitration Order, Appendices C and D; Tr. 09/21/09, pp. 78-85.

[131] LFE No. 1.

[132] Revised LFE No. 1 shows a weighting of replacement-to-growth lines was used in the transit service cost study that the Telco filed in Docket No. 02-01-23.

[133] Tr. 10/29/09, p. 784.

[134] Virginia Arbitration Order, Appendices C and D.

[135] The information that AT&T provided in LFE No. 2 and in response to Interrogatory TE-43 shows a negative growth rate for lines and trunks, including forecasts through 2012. Utilizing the algorithm from the Virginia Arbitration Orders with a negative growth rate results in illogical results (i.e., a negative growth percentage in the mix). The growth rate should consider not only the growth over the next few years but over the life of the switch (technology). In view of these considerations and the data provided by AT&T, the Department conservatively uses a growth rate of 3% annually. The Department will also accept AT&T's proposed cost of capital and economic life for circuit switching in the algorithm. This produces a mix of 85.1%/14.9% for replacement/growth lines.

Cell E68 erroneously links back to the New Tandem trunks percentage on the Tab Input Cost Drivers; it should link back to the Growth Tandem trunks percentage. Conversely, Cell E69 erroneously links back to the Growth Tandem trunks percentage; it should link back to the New Tandem trunks percentage.

4. J&C Costs

AT&T provided under protective order, a proposed J&C cost mark-up for its Recip Comp services and TTS. According to the Telco, the J&C cost mark-up for Recip Comp is based on a study that AT&T filed with the Department on March 28, 2002, in conjunction with its proposed tariff filing for entrance facilities.[136] The proposed J&C mark-up for TTS is not based on a cost study.[137] Instead, AT&T contends that its J&C mark-up is "reasonable" because of the competitiveness of transit service.[138]

Pocket objects to allowing AT&T to apply a J&C cost mark-up to its TSLRIC costs.[139] Similarly, the Cable CLECs assert that there should be no need to add a substantial mark-up to proper TSLRIC to recover unallocated overhead or common cost.[140] The Department disagrees with these parties since the FCC has expressly authorized the application of a J&C mark-up to direct incremental costs when developing TSLRIC-based rates. The FCC has also required this mark-up to be reasonable and to reflect the ILEC's forward-looking J&C costs.[141] The Department however will reject AT&T's proposed J&C cost mark-up for TTS because it is not based on forward-looking costs, it violates TSLRIC principles[142] and produces rates that are not cost-based.[143] In the absence of a cost study, the Department will require the TTS J&C cost mark-up to be the same as the Recip Comp J&C cost mark-up.

Additionally, the Department finds that the data on which AT&T's J&C cost study is based is from calendar year 1999 or earlier.[144] The Department already concluded that data from 1999 most likely does not reflect the current forward-looking Connecticut costs for the Telco when it required an updated cost study for Recip Comp.[145]

AT&T gave two reasons for not updating its J&C cost study. First, there was insufficient time to update this study because six months was needed.[146] The Department disagrees with the Telco since it has already addressed this claim in its

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[136] Pellerin PFT, p. 7. AT&T Response to Interrogatory TE-54, Proprietary Attachment A.

[137] Tr. 09/21/09, pp. 232 and 233.

[138] Id., pp. 229-231.

[139] Benedict PFT, p. 19.

[140] Pelcovits PFT, p. 18.

[141] See for example, Local Competition Order, ¶ 29 wherein the FCC concluded that the prices that new entrants pay for interconnection and unbundled elements should be based on the local telephone companies TSLRIC/TELRIC plus a reasonable share of forward-looking joint and common costs. See also, Local Competition Order, ¶¶ 694-698.

[142] Local Competition Order, ¶ 672.

[143] The Department has determined in Docket No. 08-12-04 that transit service should be provided at TSLRIC-based rates.

[144] Tr. 10/29/09, pp. 840-853.

[145] April 9, 2009 Decision in Docket No. 08-10-29, p. 2.

[146] Tr. 09/21/09, p. 69.

April 8, 2009 Decision in Docket No. 08-10-29 wherein the Department expressly rejected that notion and required the Telco to conduct that study in 100 days. This should have been sufficient time for AT&T to update its J&C cost study, especially since some of the updated data in the J&C study (e.g., account data, cost of money, depreciation lives) was already used elsewhere in the Telco's recent studies for Recip Comp and TTS.[147]

AT&T's second reason for not updating the study was its allegation that such an update would have broader implications than this docket and would apply to every UNE.[148] The Department finds this reason unpersuasive. AT&T was placed on notice that data from 1999 was not forward-looking for a cost study performed today.[149] AT&T acknowledged that: 1) the J&C cost study data did not match the study period for its Recip Comp and TTS studies; 2) the capital cost factors used in the J&C were not consistent with what it assumed in its cost factor models; 3) the J&C cost study assumed the presence of analog switches when AT&T no longer has analog switches in its network; and 4) the J&C cost study could have been updated with data it used elsewhere in its cost studies.[150] In light of these deficiencies, the Department is troubled by the fact that AT&T made no attempt to update its J&C study for this proceeding.

Nevertheless, the Department finds that AT&T's proposed mark-up for Recip Comp does not appear excessive or in excess of what a forward-looking J&C cost study would produce today.[151] For example, AT&T's proposed mark-up is a significantly smaller percentage than the 35% mark-up applied to the interim TTS rates as a result of the Department's October 7, 2009 Decision in Docket No. 08-12-04. AT&T's proposed mark up is also among the lowest J&C mark ups in AT&T's 22-state ILEC region. The Department concludes that it is reasonable that ILECs should be permitted to recover their forward-looking J&C,[152] and the Department adopts AT&T's J&C cost mark-up for Recip Comp services.

The Department also directs that this same mark-up be applied to its TTS. The Department notes that the FCC has expressly authorized the application of a J&C mark-up to direct incremental cost in developing rates. Moreover, the FCC has required J&C mark-ups to be reasonable and to reflect an ILEC's forward-looking cost. Consequently, the Department has determined that the J&C for TTS reflects the FCC's recognition that under appropriately conducted cost studies, shared and common costs should be minimal.

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[147] Tr. 10/29/09, p. 842.

[148] Id., p. 855.

[149] Id., pp. 852-854.

[150] Id., pp. 842-847.

[151] None of the parties demonstrated that AT&T's proposed J&C mark-up was set at an unreasonable level nor did any party propose a different mark-up.

[152] See, e.g., Local Competition Order, ¶¶ 29 and 694-698.