

Section 2: The Treatment of Joint Costs in LRSIC Studies

A. Inappropriateness of CBT's Approach

Q. You have indicated your disagreement with the Company's inclusion of loop and port costs in some of its LRSIC studies. Can you explain what is inappropriate about CBT's approach?

A. Yes. The subscriber loop or access line is not a direct cost of local service and it should not have been included in the LRSIC studies. The loop and port costs are not properly part of the LRSIC of local service since they will be incurred regardless of whether local service is provided, so long as various other services continue to be produced.

Where network elements are required for multiple telecom services, the cost of these elements should not logically be included in the LRSIC calculations for any single service. The portion of the firm's total cost that is attributable to network elements that are used by many services will generally be the same, regardless of whether or not any single service is produced or not produced. As the FCC explains:

Certain types of costs arise from the production of multiple products or services. We use the term "joint costs" to refer to costs incurred when two or more outputs are produced in fixed proportion by the same production process (*i.e.*, when one product is produced, a second product is generated by the same production process at no additional cost). [*Interconnection Order*, para. 676.]

Since the second product is generated at no additional joint cost, and LRSIC focuses only on the *additional* cost of each product, the joint cost should not appear in the LRSIC amount. Stated differently, if the cost of a particular network element remains the same regardless of whether or not any particular telecommunications service is produced using that element, the cost of that element will not be reflected in the LRSIC of the individual services. This conclusion also follows directly from the definition of LRSIC. Recall that LRSIC is defined

as a firm's long-run total cost of producing all its goods and services except the service in question, subtracted from the firm's long-run total cost of producing all its goods and services including the service in question. Since the loop and port costs are included in both sides of this equation, they should have little or no effect on LRSIC. In mathematical terms, the cost of the loop and port drop away from the LRSIC calculations. Regardless of how LRSIC is estimated, shared costs (a generic term which encompasses both joint and common costs) are appropriately excluded from the cost of individual services which share the network elements in question. CBT reached a contrary result by essentially ignoring the Commission's definition of LRSIC and adding 100% of the loop and port costs to its LRSIC results.

Q. Has the Commission addressed the issue of joint and common costs?

A. Yes. In the 95-845 Finding and Order, the Commission found as follows:

Common overhead costs are incurred for the benefit of a firm as a whole and are not avoided if individual services or categories of services are discontinued. LRSIC studies do not include any allocation of common overhead costs. [Attachment A, Appendix A, J.4. (p. 7.)]

Joint cost means the cost of resources necessary and used to provide a group or family of services. This cost component does not include the common overhead costs of the firm. [Id. J.12. (p. 8.)]

A LRSIC shall show that, whenever the study includes a service sharing joint costs with other services, there is an appropriate specific allocation of these joint costs. [Id., A.3. (p. 1.)]

In other words, where the service in question shares costs with some but not all other products and services of the firm, these shared costs must be identified and assigned to the group or family of services that share the cost in question. An allocation procedure can then be used to attribute a portion of the joint costs to each of the individual services within the specific family of services which gives rise to the joint cost in question. The Commission explained that LRSIC was intended for use as a pricing tool:

LRSIC shall be the appropriate costing methodology to be used in the establishment of price floors. The LRSIC study shall be used to demonstrate that each price associated with the service being studied is at least as large as its LRSIC. The Commission's use of LRSIC and an allocation of joint and common costs as a pricing tool to establish floor prices does not ipso facto create a claim for recovery by the LEC of any amounts uncollected by the LEC that otherwise would cover its full embedded cost. [Id. A.1. (p. 1.). See also Alternative Regulation Rules XII.A.4.]

The cost-based pricing of a service potentially includes three components: the direct costs attributable to the service (its pure LRSIC), the service's allocated share of joint costs, and the service's allocated share of common overhead costs.

The procedure contemplated by the Commission is fundamentally different from the one used by CBT in this proceeding because the Company added 100% of the loop and port costs to a single service (local), rather than a reasonable portion of these costs. To the extent one wants to look at 100% of these costs, it should only be done in the context of the entire family of services that use the loop and port, including local, switched access, toll and custom calling

To the extent one wants to analyze the LRSIC for local exchange service including loop and port costs, and one wants to prepare this analysis on an isolated basis separately from the other services within the overall family of services that use the loop and port, an appropriate allocation procedure would be needed. In other words, at most an allocated fraction of the joint loop and port costs would be added to the direct LRSIC costs; it would never be appropriate to include 100% of these costs in the context of just one of the services within the overall family of services.

Q. What does CBT allege about the relationship of current residence service rates to the underlying costs of local residence service?

A. According to Dr. William E. Taylor, witness for CBT,

[C]ontributions have been provided by local business rates and rates for vertical services (call waiting, call forwarding, etc.) and carrier access services to help keep local residential rates low (in most instances, below cost).” [Direct Testimony, p. 6.]

Similarly, Dr. Richard D. Emmerson, also a witness for CBT, testified as follows:

[P]ublic interest objectives such as universal service continues [sic] to cause the Commission to require below-cost prices for basic local service. [Dir. T., p. 25.]

Q. Has the Company presented a cost study in support of these allegations?

A. Yes. In response to Request for Production, No. 3, the Company provided an “Access Line Cost Study” which presents the Company’s claimed costs of Residence Line Basic Service on Tab A, page 1. These claimed costs are, in all three proposed rate bands, significantly in excess of the Company’s current residence rates, as summarized on CBT’s response to PUCO data request 109.0, page 4. For example, a portion of the Company’s cost/revenue comparison for Residence Flat Rate Service appears as follows:

	(A) Monthly Recurring Recovery	(B) Non-recurring Cost Costs	(C) Total Costs to Recover	(D) Current Rate
Band 1	25.13	0.11	25.24	16.92
Band 2	29.51	0.11	29.62	17.92
Band 3	42.63	0.11	42.74	18.92

For each band, the difference between the figure in (C) and the figure in (D) represents the amount of the monthly shortfall claimed by CBT. Interestingly, however, neither Dr. Taylor

nor Dr. Emmerson appears to have seen this study — at least neither specifically referred to it in his testimony.

Q. Do you agree with CBT’s conclusion that local residence service is being subsidized by other services?

A. No, I do not. This argument is fallacious on two grounds. First, the Company assigns the entire amount of loop cost to basic local service. This practice fundamentally violates the defining principle of the LRSIC approach, since loop costs are not incremental to basic local service, or any of the individual services that rely upon the loop.

On the other hand, the Company’s cost-revenue comparison excludes revenues generated by ancillary services that use the loop and port, despite the fact that the comparison includes the entire amount of these joint costs. If one is trying to compare the “costs” of adding another residence customer to the network (including the cost of the loop and port) with the revenues generated by that customer, it is necessary to consider these ancillary revenue sources (e.g., custom calling toll and switched access). A meaningful cost-revenue comparison involving the full cost of the loop must include the costs of and revenues from the entire family of services that use the loop.

The Company asserts that its current rates for residence basic local exchange service are not adequate to recover the cost of that service. However, this assertion is misleading. No one service can be expected to recover the entirety of the joint costs incurred in providing multiple services. It is clearly unreasonable to assign 100% of these joint costs to just one service out of the half-dozen or so types of service that benefit from the joint production process (including intraLATA toll, intrastate interLATA switched access, interstate switched access, directory publishing, call waiting, call forwarding, caller ID and more). Such a lopsided cost recovery pattern is not only unreasonable, it would also be completely inconsistent with the manner in which joint costs are recovered in competitive markets. It simply isn’t plausible to argue that demand for these other services is so weak that they would not (or should not) bear

any significant share of the joint costs, thereby forcing 100% of these costs onto basic local service. The key question with respect to cost/revenue relationships is whether CBT is able to recover its costs of services involving the loop from the total revenue stream generated by that loop. In answering this question, it is critically important to look at the entire array of revenues generated by the loop, including switched access, intrastate toll, interstate toll, custom calling, and basic local exchange.

If there are specific markets (e.g., rural communities) where the total amount of retail revenue generated by a typical loop is insufficient to recover the cost of that loop, there is reason to be concerned, since competitors will be discouraged from entering those particular markets. Assuming such a problem exists in a specific market, there are several potential solutions. Most notably, a "universal service fund" or other regulatory mechanism may be needed, to help cover the high costs of serving these particular markets. However, any such analysis must involve a meaningful and complete picture of the revenues and costs attributable to the customer, or market, in question.

As I will show later in my testimony, there are at least three different methods that can be used to appropriately compare revenues with costs. None of these methods supports a conclusion that CBT residence customers as a whole, or any of its residence local services are currently subsidized in the economic sense by other customers. This holds true for the Company's Ohio service territory as a whole, and for each of CBT's three proposed rate bands. It is only in the context of CBT's misleading comparison of revenues from local service in comparison with its estimate of local service costs plus 100% of the joint loop and port costs, that a general "shortfall" appears. This alleged "subsidy" or shortfall disappears if a reasonable allocation approach is used, or if reasonable consideration is given to ancillary sources of revenues attributable to residence customers. In the next section of my testimony I will present alternative LRSIC studies and revenue/cost comparisons that avoid the errors in CBT's studies.