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The Public Utility Commission of Texas adopts new §23.91 with changes to the proposed text as published in the April 6, 1993, issue of the Texas Register (18 TexReg 2274). All local exchange carriers with annual revenues from regulated telecommunications operations in Texas of \$100,000,000 or more for five consecutive years will be required to comply with this proposed rule. The rule requires local exchange carriers (LECs) to determine and provide to the Public Utility Commission the long-run incremental costs (LRIC) incurred by such carriers in the provision of telecommunications services.

The public benefit anticipated as a result of enforcing the new section will be promotion of consistent ratemaking treatment, decreased litigation of issues in rate cases, and greater certainty regarding the economic costs of providing telecommunications services.

The following parties submitted comments: the Office of Public Utility Counsel (OPUC); CENTEX Telemanagement, Inc. (CENTEX); Texas Telephone Association (TTA); Sprint Communications Company L.P. (Sprint); MFS Communications Company, Inc. (MFS); GTE Southwest, Incorporated and Contel of Texas (the GTE Companies); Texas Statewide Telephone Cooperative, Inc. (TSTCI); AT&T Communications of the Southwest, Inc. (AT&T); Southwestern Bell Telephone Company (SWB); General Services Commission (GSC); MCI Telecommunications Corporation (MCI); Southwest Telecommunications Association, Inc. (STA); and Texas Association of Long Distance Telephone Companies (TEXALTEL). Capital Network System, Inc. (CNSI) requested by means of a transmittal letter to be notified of the time and date of commission sponsored workshops in connection with §23.91 but did not file any written comments.

Following the publication of the proposed rule, the commission conducted three workshops at which the commenting parties further discussed the issues raised in their comments.

Generally in support of the proposed rule and the incremental costing methodology therein are the following parties: CENTEX; TTA; Sprint; MFS; the GTE Companies; AT&T; SWB; GSC; MCI; STA; and TEXALTEL. OPUC generally opposes the proposed rule. TSTCI neither opposes nor supports the proposed rule; it filed comments that are cautionary and neutral.

The remainder of this preamble is organized as follows. General issues that do not pertain to any particular subsections of the proposed rule are discussed first. Specifically, the preamble begins with a summary of the comments on the section's use of incremental costing and basic network functions (BNFs) to determine service costs. The next topic is the added distinction between volume sensitive costs and volume insensitive costs associated with BNFs. The last part of the preamble pertains to comments on the specific subsections of the proposed rule and follows the order in which the subsections are found in the proposed rule. The parenthetical references to the various comments refer to page numbers on file at the Public Utility Commission of Texas.

The two prominent features of the costing methodology embodied in the proposed rule are: first, the requirement that LECs perform cost studies consistent with the principles of incremental costing; and second, the requirement that LECs identify and cost basic network functions (BNFs) that are used in various combinations to provide tariffed services.

All parties that support the proposed rule in their comments endorsed the section's requirements that cost studies use incremental costing principles. CENTEX states that they support 'the Proposed Rule's emphasis on what is sometimes called Total Service Long Run Incremental Cost (TSLRIC) methodology.' (CENTEX comments at 1.) TTA likewise 'agrees with the incremental cost methodology.' (TTA comments at 1.) Sprint 'supports the use of LRIC [to] identify the economic cost of providing a service or group of services.' (Sprint comments at 1.) MFS states that it 'strongly supports adoption of the proposed rule, relating to Long Run Incremental Cost Methodology for LEC services.' (MFS comments at 1.) The GTE Companies also support the use of incremental costs and comment that they 'are pleased that the proposed Rule advocates the use of incremental costs.' (The GTE Companies at 5.) AT&T cites that 'among the desirable aspects of the Rule as proposed [is] recognition that the appropriate costing standard to detect subsidization of competitive services by monopoly services is the total service long run incremental cost (TSLRIC) standard.' (AT&T comments at 2.) SWB 'commands the Commission's Staff for proposing a rule that utilizes incremental costs' and dedicates a section to incremental costing under the heading 'Incremental cost and not fully distributed cost is the correct methodology for a cost rule.' (SWB comments at 2.) GSC states that it 'supports a true LRIC analysis.' (GSC comments at 1.) MCI notes that Total Service LRIC 'is the appropriate measure of cost.' (MCI comments at 8.) STA states that Staff's Long Run Incremental Cost Rule 'makes significant progress toward achieving [the] policy objective [that] LECs set prices for competitive services so that these services are neither directly nor indirectly subsidized.' (STA comments at 1.) TEXALTEL 'supports the concept embodied within proposed rule s23.91' and, in fact, suggests improvements, discussed below, to assure that correct LRIC results are obtained. (TEXALTEL comments at 1.)

Notwithstanding its disagreements with the commission's proposed rule, OPUC does not appear to be fundamentally opposed to the incremental costing methodology per se, though it does assert that 'the utilization of LRIC information alone will not achieve the Commission's stated objectives of

promoting consistent ratemaking treatment, decreasing litigation of issues in rate cases, and furnishing greater certainty regarding services' economic costs.' (OPUC comments at 1.)

However, while they are not opposed to incremental costing, GSC and OPUC comment extensively on what they perceive to be an inconsistency between the proposed rule's professed long run incremental cost methodology and its requirements that LECs use current demand data, least cost technologies that are currently available on the market, and existing network topologies.

Although GSC generally supports the proposed rule, GSC notes that 'despite the acceptable s23.91(c)(6) definition [of LRIC], the proposed Rule on actually measuring LRIC does not match that definition. The cost measured under the proposed method is for an increment of output that 'shall be the level of output necessary to satisfy total current demand...' This suggests that the increment of demand is the total demand for the particular BNF at the present time, and does not reflect a prospective change in demand that would cause a corresponding change in costs.' (GSC comments at 3.) GSC further comments that 'it is not clear how the notion of 'long run' actually will fit into the empirical analysis ... since both LRIC and demand levels are based on the current time frame.' (GSC comments at 4.) GSC asserts that 'LRIC studies should be forward looking, and for that reason, involve demand and cost projections...' (GSC comments at 4.)

OPUC's comments express much the same concerns. OPUC comments that 'the rule assumes that the relevant increment of output associated with determining LRIC is 'the level of output necessary to satisfy total current demand levels for all services using the BNF in question.' Proposed s23.91(f)(1). Such conditions clearly are not planning related.' (OPUC comments at 11.) In regard to the requirement that least cost technology choices must be restricted to those that are currently available on the market, OPUC comments that it is 'unclear of what relevance the stipulations might be to determination of long run values.' (OPUC comments at 11.)

The commission disagrees with GSC and OPUC for the following reasons. The concerns of GSC and OPUC seem to stem, in part, from their interpretation that the long run pertains to events in the future and, therefore, that LRIC studies must be based on projected data rather than on current data. That is, GSC and OPUC seem to maintain that the distinction between 'short run' and 'long run' is one primarily in chronological time, with the short run referring to the present and the long run to the future. While the commission recognizes that GSC's and OPUC's use of the term has been applied in some LRIC studies performed for telecommunications services, the commission believes that the economic literature does not restrict the term 'long run' to this particular use.

In the economic literature, long run cost functions, traditionally, do not refer to costs that a firm is projected to incur at some point in the future; in fact, the discussions of such functions in standard economic texts do not even include time as a variable that is relevant. The reason is that the term

long run, rather than referring to some time period in the future, refers to a set of assumptions that underlie the construction of cost functions. In the construction of long run cost functions all inputs are assumed to be variable. In contrast, in the construction of short run cost functions some inputs are assumed to be fixed.

As Alfred Kahn notes '[t]he source of the confusion is the economist's use of the unfortunate terms 'short run' and 'long run.' They seem to correspond to time in some chronological sense--short run to costs that are incurred today and long run to those incurred next year, or some such. But in fact they do not.' Kahn goes on to say that the short run/long run distinction is 'between costs that are fixed and those that are variable with output during some arbitrary period of time.' A. Kahn, *The Economics of Regulation: Principles and Institutions*, MIT Press, Cambridge, MA, 1988, p.72.

The proposed rule, then, does not use the term long run in a chronological sense to refer to costs that the companies might incur during some time period in the future. (Such a use of the term indeed would have necessitated the need to engage in demand and cost projections.) Instead, the term long run is used predominantly for the following reasons. First, it is used to allow cost analysts to assume that all inputs are variable, to ignore embedded cost structures, and to produce cost studies reflective of least cost technology choices. Second, it is used to ensure that all capital costs, assumed fixed in the short run, are included in the long run incremental costs studies.

What follows are additional reasons why the commission rejects suggestions that, for the purposes of the proposed rule, cost studies for existing services ought to be based on 'demand and cost projections' and technology choices other than those currently available on the market. (That is not to say that such studies would not be useful for other purposes.)

First, the results obtained from cost studies based on anything other than current demand levels can not be readily applied, except under some strong assumptions, to determine whether services or groups of services are currently cross-subsidized, one of the main objectives of the commission's costing rule. This is particularly true for cost studies that are based on 'an incremental change in demand resulting from projected growth over some planning horizon, as GSC suggests a 'properly constructed LRIC study' should be. (GSC comments at 4.) Such studies would only indicate the minimum revenue necessary to recover the costs of an increment of demand growth, not the revenue needed to prevent cross-subsidization of a service as a whole, or a group of services as a whole.

Second, the specification of the relevant increment of output will differ depending on, among other considerations, whether the setting involves a single-product or a multi-product firm. Clearly, for a single-product firm it would be peculiar to specify total output for the service as the relevant increment in an incremental cost study: one would simply get total cost. For a single-product firm, therefore, one would not choose total output but some other level, such as an increment in output needed to serve a projected

increase in demand. This is not necessarily true for a multi-product firm, such as a local exchange telephone company. As noted by AT&T, MCI, and others, it is entirely meaningful in a multi-product setting to determine incremental costs, where the increment of output concerns the addition, or discontinuation, of a service or group of services. In fact, the information obtained from such an exercise is critical in determining whether a service or group of services is cross-subsidized. (For a discussion of the incremental cost test and subsidy-free prices, see Daniel F. Spulber, Regulation and Markets, MIT Press, Cambridge, MA, 1989, p. 120-124.) Since one of the main objectives of the proposed rule is to help prevent cross-subsidization, it is reasonable and necessary to use total current demand levels as the relevant increment of output.

Third, demand and cost projections are not easily obtained and, in any event, are likely to be controversial. Also, demand forecasts are contingent on service rates that, in turn, are contingent on costs that, coming full circle, are contingent on demand. This interdependence between costing and pricing that exists when demand and cost projections are used is, among other complications, what the commission has sought to avoid by separating costing and pricing issues.

Fourth, the commission sees no merit in allowing the companies and other parties to conjecture about futuristic technologies that may or may not be introduced in the market and for which, as of yet, no verifiable vendor prices can be obtained.

Last, the proposed rule requires the LECs to update all studies every six months when significant changes occur. This requirement, therefore, obviates the need for controversial demand and cost projections and assures that the Commission has access, at all times, to current cost information.

For the above reasons and others discussed below, the commission believes that the provisions in the proposed rule are both theoretically consistent and appropriate.

OPUC comments that even if the proposed rule were revised so that true LRIC studies are mandated, additional information would be required to achieve costing objectives. Most notably ... the ceiling of the pricing range must be discernable if some customers are not to be burdened with uneconomically high rates. This ceiling level is determined from the stand alone costs of service. (OPUC comments at 5.)

The commission disagrees with OPUC for the following reasons. First, as long as all services and groups of services (that share common costs) recover their LRIC, as determined under the proposed rule, then no service or group of services is being subsidized. But, if no service or group of services is being subsidized (i.e., there are no subsidy flows), then no service or group of services is doing any subsidizing, either. Therefore, as long as regulators prevent the company from over-earning, the company is reasonably efficient, and all services and groups of services recover at least their LRICs, then no

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service is charged more than its stand-alone costs.

Second, the nesting of services into groups when common costs exist will allow the commission to observe the upper limit on how much the company should be allowed to charge customers. Indeed, if all common costs are properly accounted for, then the proposed rule, in effect, produces the stand-alone benchmarks that OPUC maintains are needed to protect customers.

Further, to the extent that the company has inefficient or stranded facilities not accounted for in LRIC studies (OPUC comments at 7), the recovery of these facilities is a pricing problem that the commission will address during the rulemaking proceeding on pricing referenced in subsection (p).

The second prominent feature of the proposed rule, the requirement that the LECs identify and cost the basic network functions used to provide their finished services, received general support as well, except from OPUC, which is generally opposed to the proposed rule. CENTEX states that 'the Proposed Rule correctly recognizes that the myriad of services currently offered by the LECs in Texas are in reality constructed by combining a limited number of Basic Network Functions (BNFs) in various ways.' (CENTEX comments at 1.) Sprint offers that 'the use of BNFs as cost components in developing a service or group LRIC facilitates the proper reflection of incremental costs.' (Sprint comments at 1.) MFS comments that 'the Commission's proposal would introduce a fundamental and important innovation in costing methodology, namely the use of 'bottom-up' methods that start with the costs of disaggregated network components and work up to develop service costs.' (MFS comments at 1.) AT&T states that it supports an approach to costing that includes the 'identification of the separate basic network functions that comprise the highly technical, complex network as marketed by the LECs.' (AT&T comments at 2.) MCI comments that 'the proposed rules properly recognize that the networks of the LECs perform a finite number of basic network functions (BNFs), which can be combined in various ways into a vast variety of finished telecommunications services, and properly focus on the development of cost information at the level of these basic network functions, rather than at the level of finished services.' (MCI comments at 1.) STA asserts that since 'the proposed rule builds from the costs of basic network functions of the network (BNFs)' the proposal 'represents the proper approach to cost determination.' (STA comments at 2.)

While SWB and the GTE Companies do not explicitly endorse the use of BNFs to determine service costs, they do not oppose it either. In fact, SWB states that 'the central nature of cost causation in the proposed rule is consistent with the philosophy of Southwestern Bell's current cost models and methods to the degree that it utilizes 'cost drivers' or basic cost causative components that could be conceptually similar to properly defined BNFs.' (SWB comments at 3.) The GTE Companies, rather than opposing the use of BNFs to determine service costs, recommend that by focusing on only 'the core or key BNFs' the approach 'will identify the costs of the most important BNFs or cost drivers and will relate more directly to the result of proceedings and workshops addressing the scope and timing of interconnection, unbundling, and pricing.

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(The GTE Companies comments at 2.)

However, while neither SWB or the GTE Companies appear to have conceptual problems with the proposed rule's focus on costing basic BNFs, both parties express concerns about the number of BNFs and the degree of specificity with which BNFs have been prescribed. SWB states because 'BNFs will vary across companies and over time ... BNFs should be a fluid concept. It will be difficult to fully specify BNFs at the outset. Thus SWB recommends that specific BNFs not be codified in the rule.' (SWB comments at 5.) The GTE Companies share SWB's concerns. The GTE Companies comment that 'the rapid, perhaps even revolutionary, pace of change in telecommunications technology is well known to all parties, and it is well recognized that the BNFs of today will change dramatically with time.' Therefore, the GTE Companies 'strongly recommend that the specific and detailed BNFs contained in the proposed rule be removed.' (The GTE Companies comments at 8.)

Sprint, on the other hand, expressing the opposite concern of SWB and the GTE Companies, comments that it 'questions whether the BNFs have been identified at a low enough level. BNFs should be identified at a level that will allow service LRIC studies to properly reflect the incremental cost of the service. If BNFs are identified at too high a level, many more costs become common between services and are forced to the group of services level.' (Sprint comments at 2.)

The above comments demonstrate the tension between the need to define BNFs with an appropriate degree of specificity and the danger that codified BNFs may quickly become obsolete because of technological change and/or because of the differences in cost causative relationships across companies. The commission has sought to resolve this tension by specifying BNFs at a reasonable level of detail while allowing the companies not only to add BNFs but also to modify BNFs or eliminate prespecified BNFs altogether where it is demonstrated that doing so is appropriate.

As noted, OPUC is the only party that filed comments to oppose the use of BNFs to determine service costs. OPUC states that 'the proposed rule offers no engineering justification for the building block approach nor any assurance that the LEC would design its network in the same way or use the same combination of BNFs if it were aware, a priori, that these would be subject to disassembly.' (OPUC comments at 8.)

The commission agrees with OPUC that the costing methodology embodied in the proposed rule could alter the incentive structure for the LEC and affect network design and investments in the future, depending on, among other things, how cost study results impact service rates. But, since this observation would be true for all costing methodologies in general, it is no reason to oppose any methodology in particular. Furthermore, to the extent that the LEC's network design will be affected by the costing methodology in the rule, the likely result is a more modular and open network architecture.

The commission, however, disagrees with OPUC that there exists 'no engineering

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justification for the building block approach.' In fact, the network functions identified in the proposed rule as BNFs are so identified in large part precisely because their engineering characteristics allow them to be set apart from other functions and to be costed out individually.

OPUC also comments that 'with the appearance of the 'intelligent network' services/features/functions may be largely defined (invented) based on transient user needs or carrier strategy. Thus, the process of making BNF revisions could essentially be continuous. ... A LRIC based on BNFs may have an 'expected life' of as little as a few hours!' (OPUC comments at 9.) The commission disagrees with OPUC. Network functions which require substantial investment outlays will not any time soon have an expected life of just a few hours. Finished services, on the other hand, may be created or modified, in an intelligent network environment, in the amount of time that it takes to load-up a new software program. Therefore, OPUC's argument is in fact a compelling demonstration of the need to perform cost studies not just for finished services but also for network functions, as the commission proposes in its costing rule.

The proposed rule envisioned that costs associated with the provision of BNFs would have volume sensitive and volume insensitive components, consistent with the standard representation of cost functions in the economic literature; it did not, however, include specific definitions for those terms. Instead, the proposed rule used general language to suggest the use of volume sensitive and volume insensitive costs, such as 'the long run incremental costs for the tariffed service shall include the costs associated with this usage [of the BNF.]' While some parties, such as MCI, found the proposed rule's treatment adequate, other parties suggested that the proposed rule be modified to include definitions and a more explicit treatment of the volume sensitive and volume insensitive costs.

For example, the GTE Companies note that 'the costs which vary with output could be referred to as the volume sensitive costs. The costs which do not vary with output but are incremental with the offering of the service could be referred to as volume insensitive costs.' (The GTE Companies comments at 7.) SWB likewise asserts the need to make the distinction explicit because 'the distinction between volume sensitive and volume insensitive costs is important for sound business and policy reasons (e.g., avoiding cross-subsidies.)' (SWB comments at 15.) The commission incorporates the recommendations and adds subsections (c)(23)-(24) to define volume sensitive and volume insensitive costs and modifies subsections (d)(5), (d)(6), (f)(8), (f)(9), and (g)(3), accordingly.

GSC comments that 'there are several places in the proposed rule where the word 'significant' is used to describe a trigger point that determines whether a certain action should occur. The language in these instances is vague and it is not clear when the point of 'significance' is reached.' (GSC comments at 5.) In its discussion of some specific instances in which the proposed rule uses the term significant GSC suggests that 'a range of [approximately] 10 percent would be a reasonable range.' (GSC comments at 6.) The commission

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recognizes that the proposed rule should set some standard to define when something is 'significant' and when it is not. Therefore, the commission adds subsection (c) (19) to define the term 'significant.'

The preamble to the April 6, 1993 Texas Register Publication of the proposed rule stated that there would be no anticipated economic cost to persons who are required to comply with the proposed section. A number of parties took issue with this statement. TTA comments that it 'disagrees with the statement that there is no anticipated costs.' TTA maintains that 'to identify and conduct LRIC studies for all relevant basic network functions ('BNFs') and to determine the LRIC cost of every tariffed service by grouping BNFs and services which share common costs is a massive undertaking.' (TTA comments at 2.) The GTE Companies comment that 'although the GTE Companies support adoption of an incremental cost study rule ..., the magnitude of the effort required by the proposed rule to accomplish these studies is significant.' They note that the requirements potentially apply to 'approximately 1400 services: a truly burdensome number.' Therefore, the GTE Companies recommend 'that the scope be reduced to a manageable level such that incremental cost studies produced on only those BNFs which competitive suppliers must obtain in order to compete.' (The GTE Companies comments at 18.) Similarly, SWB comments that 'the Commission must not operate under the mistaken impression that compliance with this proposed rule will not have an adverse economic impact on the LECs.' SWB maintains that 'the cost of compliance for Southwestern Bell will be quite high in terms of additional needed resources and costs. Specifically, Southwestern Bell estimates that it will need additional employees to insure compliance in Texas at an annual cost of at least \$4 million over the next three years. This is a significant real cost to Southwestern Bell which would then become a part of the cost of service.' (SWB comments at 8.)

The commission believes that TTA, the GTE companies and SWB overstate the burden that the proposed rule would impose on complying companies. First, both the GTE companies and SWB already employ cost analysts that conduct cost studies for a variety of purposes, such as cost studies for applications under ss23.24, 23.25 or 23.27. The effect of the proposed rule, therefore, would be to streamline and systematize the manner in which such cost studies are conducted. Second, the commenting parties fail to take into account the potential benefits and cost savings from reduced litigation of issues related to cost, cross-subsidization, and predation in docketed proceedings. Nevertheless, to accommodate some of the concerns of the parties, the commission adds subsection (j)(5)(C) to allow companies to file for a waiver (under the workplan) from the requirement to perform LRIC studies for certain services. This provision, for example, would allow the companies to demonstrate that, in the absence of competitive concerns, revenues for a service were so small that the requirement to perform a cost study for the service would be unduly burdensome and of little public benefit.

MFS recommends, in view of changing telecommunications technologies, that the second sentence of subsection (c)(1) be amended to allow the company the flexibility to specify additional subcategories of BNFs. (MFS comments at 3.) The Commission agrees with MFS that s23.91 should allow the companies

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flexibility to reflect changes in telecommunications technologies. However, the commission believes that s23.91 provides sufficient flexibility by allowing the companies to specify new BNFs or to redefine prescribed BNFs. No changes were made.

GSC comments that the activities described under the category of BNFs of Ancillary Services are more properly described as being adjuncts to BNFs and services. (GSC comments at 5.) The commission agrees and modifies subsection (c)(1) accordingly.

STA notes that the language defining the subcategory for billing and collection allows for the undesirable possibility that the companies include functions that properly belong under operator services. STA recommends that the commission add the following phrase to subsection (c)(1)(A): 'to the extent that this activity does not otherwise include activities described in subparagraph (C) of this paragraph, relating to Operator Services.' (STA comments at 3.) The commission appreciates STA's concerns but believes that the definitions are sufficiently clear and that no changes are needed.

STA proposes that the subcategory defined in subsection (c)(1)(C) explicitly include the use of Line Identification Data Base (LIDB) and Originating Line Screening (OLS). Further, STA maintains that subsection (c)(1)(C) should also include the provision of '0-' calls. (STA comments at 3.) The commission disagrees with STA and maintains that subsection (c)(1)(C) has been defined with a sufficient degree of specificity.

AT&T notes that in subsections (c)(1)(C) and (e)(11) the services described at the end of the first sentence should be '(busy line verification)' and '(busy line interruption).' (AT&T comments at 9.) The commission agrees and modifies the language accordingly.

A number of parties comment on the proposed definition of BNFs in subsection (c)(2). CENTEX expresses concern that the definition leaves the companies too much discretion. (CENTEX comments at 3.) The GTE Companies comment that 'the definition does not make a distinction between costing and pricing' and that 'the definition should recognize and include the necessary description of cost causation.' (The GTE Companies comments at 13.) SWB maintains that the definition 'incorrectly ties costing and pricing and how services may be offered.' (SWB comments at 5.) GSC suggests that the definition should be expanded by adding the phrase 'or as a service component.' (GSC comments 7.) During the workshops the parties agreed to change the definition to read as follows: 'A discrete network function which is useful, either as a stand-alone function or in combination with other functions, for which costs can be identified.' The commission changes the definition accordingly.

In regard to subsection (c)(5), MCI comments that the rules fail 'to consider costs which may be related to groups of BNFs,' and that 'MCI regards this as a significant omission.' MCI maintains that 'a relatively large proportion of the costs of the LEC's networks consists of volume-insensitive costs which relate to network functions rather than to finished services.'

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Therefore, MCI recommends that 'the proposed rule be modified to require identification of group-related costs at the level of BNFs.' Agreeing with MCI, the commission modifies subsection (c)(5) to define the term 'costs common to BNFs' and subsection (h) to require the LECs to identify and calculate the costs that are common to BNFs, as well as subsections (j)(2) and (k)(2) pertaining to the LEC proposed workplan and other filing requirements. SWB suggests that the definition of common costs in subsection (c)(5) be changed to reflect that costs can be common to customers. (SWB comments at 1 of Attachment A.) While agreeing with SWB that for some purposes it can be meaningful to define costs common to customers, the commission believes that for the purposes of s23.91—to determine costs for tariffed services, among other purposes—the definition for common costs should not be defined as costs common to customers.

SWB also suggests that the commission add language to subsection (c)(5) to indicate that some costs can be assigned only to the firm in its entirety. (SWB comments at 2 of Attachment A.) The commission agrees with SWB and modifies the definition of common costs in (c)(5)(A) accordingly.

TEXALTEL expresses concern about the term 'avoided' in subsections (c)(6) and (c)(16). TEXALTEL comments that '[i]n the Commission's cost study history, avoided' cost and 'incremental' cost have often implied two very different costing concepts.' According to TEXALTEL, because 'provision of telephone services frequently involves investment in 'sunk costs,' which are investments in cable or other equipment which are not salvageable ... the incremental cost to initially provide service[s] is substantially greater than the cost that would be avoided if the services, once provided, were discontinued.' (TEXALTEL comments at 1.) The commission agrees with TEXALTEL and modifies subsection (c)(6) and (c)(16).

SWB proposes to substitute the word 'service' for BNF in the definition of the term 'cost driver' in subsection (c)(7). (SWB comments at 2 of Attachment A.) The commission disagrees with SWB because the substitution would subvert the intention of s23.91, to direct the focus away from traditional service costing to the costing of basic network functions used to deliver finished services.

SWB suggests that the subsection (c)(8)-(9) be modified to allow the company to use forward looking data for cost of debt and cost of money. (SWB comments at 2.) The commission disagrees with SWB. However, as discussed below, the commission modifies some language pertaining to the company's cost of money.

A number of parties comment on the definitions in subsection (c)(10). MFS suggests that the terms 'originating and terminating' in subsection (c)(10)(A)-(B) be substituted for by the phrase 'two or more.' (MFS comments at 5.) The commission believes that the current language is sufficient and appropriate.

GSC notes that the phrase 'temporary time-sensitive' in subsection (c)(10)(B) is not clear, and that 'the word shared should be substituted for time-sensitive' to clarify the definition. (GSC comments at 7.) The commission

agrees with GSC's comments and changes the definition based on those comments.

CENTEX comments that since depreciation expenses are defined in subsection (c)(11), the definition of expenses in subsection (c)(12) should exclude depreciation expenses. (CENTEX comments at 3.) The commission disagrees with CENTEX. Depreciation expenses defined in (c)(11) are simply a subset of expenses defined in subsection (c)(12), and, therefore, there is no reason to change these definitions.

GSC maintains that the definition of expenses in subsection (c)(12) is too vague and suggests modifying it to read 'being those only associated with the change in demand that caused the incremental investment under study.' (GSC comments at 7.) The commission believes that the principles developed under subsection (d) of the proposed rule and the requirements specified in other subsections are sufficient to assure that only expenses associated with the relevant increment of output are included in the cost studies required under the proposed rule. Therefore, the commission does not believe that the definition needs to be changed and leaves the language as originally proposed.

AT&T expresses concerns that certain common costs may be arbitrarily allocated to services not causally responsible for such common costs. (AT&T comments at 6.) To further strengthen the language of the proposed rule to avoid that such arbitrary allocations occur, the commission modifies the language in subsection (c)(13) and substitutes the phrase 'are not directly attributable' for 'cannot be assigned.'

A number of parties comment on the definition of least cost technology, subsection (c)(14). CENTEX recommends that the proposed rule restrict the least cost technology choice to currently available technologies. TSTCI is concerned that the definition could be interpreted to refer to the cheapest technology available on the market, as opposed to the appropriate interpretation that the least cost technology is the most economically efficient choice. (TSTCI comments at 5.) SWB comments that least cost technology choices should be made consistent with the company's overall network requirements and not on a piecemeal basis. (SWB comments at 14.) The commission agrees with the commenters and modifies the definition in subsection (c)(14) accordingly as well as subsections (f)(3), (g)(6), and (i)(3).

AT&T comments that in subsection (c)(14) the last four words of the first sentence should read, 'most economically efficient choice,' rather than 'economically most efficient choice.' (AT&T comments at 9.) The commission agrees with AT&T's suggestion, and modifies subsection (c)(14) accordingly.

GSC comments that there exists a conflict between the definition in subsection (c)(14) of least cost technology, the proposed rule's emphasis on LRIC, and the requirement that cost studies be based on current data. GSC comments that 'the costs to be used in the analysis are based on the least cost technology, which is the technology that would be selected in the long run as the economically most efficient choice. However, this is another instance of mixing the long run with the current situation. Even though a long run

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technology may be selected ... for the cost studies, current costs and current demand are used in the proposed rule to develop LRIC results.' (Emphasis added) (GSC comments at 8.) The commission believes that the requirements of s 23.91 are theoretically consistent and appropriate.

First, there exists no theoretical problem with the requirement that the least cost technology choices are restricted to currently available technologies for which vendor prices can be obtained. In fact, the commission feels strongly that it would be most inappropriate to allow companies to use investment data based on futuristic technologies that may or may not be introduced on the market and for which no established vendor prices exist. Second, there is no inherent theoretical contradiction in using least cost technology data to determine the costs of satisfying the companies' current demand levels. For example, in the economic literature on sustainable prices, the concept of sustainability against full entry is defined explicitly in terms of current demand levels produced at minimum costs, i.e., with the use of long run least cost technologies. (See Baumol, Panzar and Willig, Contestable Markets and the Theory of Industry Structure, HBJ, NY, 1982, p. 205.) For a more extensive explanation of the proposed rule's use of the term 'long run' see the previously mentioned general discussion.

GSC comments that 'the proposed rule assumes only one technology (i.e., least cost) which is incorrect. The LRIC should be appropriately weighted to reflect technology mixes.' Furthermore, GSC comments that there are cost differences between, say, an AT&T switch and a Northern Telecom switch. According to GSC '[t]hese factors should be reflected in an appropriate cost weighting in the LRIC study.' (GSC comments at 11 and 12.) The commission agrees with GSC and modifies subsection (c)(14) accordingly.

SWB comments that the commission's definition in subsection (c)(15) of the long run is too theoretical to be implemented. SWB suggests the following language: 'A period of time long enough to capture all of the costs that are caused by or brought into existence because of an activity or service decision and are avoided when the activity ceases.' (SWB comments at 14.) The commission believes that the definition in the proposed rule accomplishes the same objective as the language proposed by SWB and, therefore, sees no need to make any changes.

CENTEX comments that the definition of long run incremental costs (LRIC) in subsection (c)(16) should be made consistent with subsection (f)(1) by specifying the relevant increment of output. (CENTEX comments at 4.) The commission agrees with CENTEX that it is critically important that cost studies are based on the relevant increment of output. However, since the definition of LRIC needs to be applicable to a number of diverse instances, the commission believes that the relevant increment is more appropriately specified in the subsections that contain guidelines for specific LRIC studies.

In regard to subsection (c)(15), the GTE Companies assert that 'one should not, without question, start with the notion that either long run or short run costs are relevant. Rather, one should identify the costs which the

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company will incur if the decision under evaluation is implemented. ... Let the 'run' of the cost analysis process fall where it will.' (The GTE Companies comments at 7.) While the commission agrees with the GTE Companies that the nature of the decision under evaluation should determine whether short run or long run costs are relevant, the commission believes that for the purposes of s 23.91 the relevant costs are the long run costs.

GSC comments that there exists a contradiction between the commission's definition of LRIC in subsection (c)(16) and requirements elsewhere in s23. 91. Specifically, GSC sees a conflict between the use of the term long run and the requirement that the relevant increment of output 'shall be the level of output necessary to satisfy total current demand levels' under subsection (f) (1). GSC maintains that it would be more appropriate to determine LRIC for 'a prospective change in demand.' (GSC comments at 3.) As noted earlier, in the economic literature on sustainable prices, the concept of sustainability against full entry is defined explicitly in terms of current demand levels produced at minimum costs, i.e., with the use of long run least cost technologies. Since sustainability of tariffed service rates is one of the issues the commission is interested in exploring, the commission's approach to service costing is theoretically consistent and appropriate. For a more extensive explanation of the proposed rule's use of the term 'long run' see the general discussion provided above.

GSC comments that network access as defined in subsection (c)(18) 'may someday also connect to the equivalent of BNFs of other providers such as MFS, Teleport, AT&T, etc.,' and that some provisions should be made for this possibility. (GSC comments at 8) The commission does not believe that its definition of network access precludes the possibility described by GSC; therefore, no changes are made.

AT&T notes a typographical error in subsection (c)(20): the title should be 'Switching and Switch Functions.' (AT&T comments at 9.) The commission agrees and modifies the language accordingly.

TEXALTEL raises a concern regarding the definition and application of interoffice switching in subsection (c)(21)(A). TEXALTEL notes that because there 'are many situations where the same central office serves both tandem and local switching functions (a class 4/5 office, in older terminology),' the possibility exists that 'costs will be double dipped if both a local switching cost and a tandem switching cost is incurred when a call transits only one central office from a customer access line to an IC point of presence.' The commission agrees with TEXALTEL that the possibility of 'double-dipping' exists and that it would be inappropriate. The commission, therefore, urges parties to remain alert to this undesirable possibility, both when checking cost studies performed under the requirements of this section as well as in subsequent proceedings. The commission, however, does not find it necessary to change the language of subsection (c)(21)(A).

Subsections (d)(5) and (6), pertaining to the presence and treatment of common costs, drew comments from virtually all parties.

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Sprint comments that it agrees with the construction of common costs in subsection (d) but recommends that the language be general and that no reference be made to specific BNFs whose costs 'shall be excluded from LRIC studies.' (Sprint comments at 2.) The commission appreciates Sprints observations, however, the comments filed by certain parties indicate that a certain degree of specificity is needed to assure that cost studies are performed consistent with the costing principles of the proposed rule.

AT&T comments on subsection (d)(5) that 'the designation of a BNF as a common cost ... prejudices the decision as to whether the costs associated with that BNF are recovered through rates for a group of services or through rates for unbundled BNFs.' (Emphasis added.) (AT&T comments at 4.) The commission disagrees with AT&T that the recovery of the costs associated with a BNF have been prejudiced by the construction of the proposed rule and the treatment of common costs therein. In fact, addressing AT&T's concerns, subsection (1)(4) explicitly provides for instances of service unbundling. Furthermore, in the event of service unbundling, subsection (1)(4) requires that 'the LEC shall carefully reexamine the identification of groups of services that share significant common costs' and that 'the LEC should update all studies ... that are affected by [the] changes.' Nevertheless, to further demonstrate that the proposed rule is not intended to prejudice issues of cost recovery, the commission adds subsection (d)(8) to make explicit that 'nothing in [s23.91] is intended to either endorse or reject the LEC's current rate and tariff structures.'

AT&T, the GTE Companies, and SWB object, though for different reasons, to the language in subsection (d)(6) that requires the LECs to exclude the costs associated with the Network Access Channel Basic Level (NACBL) and Network Access Channel Connection Basic Level (NACCBL) from the LRIC studies for residential and business basic local exchange service.

Consistent with its comments on subsection (d)(5), AT&T maintains that the NACBL and NACCBL are 'not common costs of other services. They are BNFs which can be services in and of themselves.' Furthermore, AT&T comments that the 'the manner in which costs are ultimately to be recovered will be unfairly colored by the inconsistent exclusion of the cost of the BNF from the LRIC of some, but not all, tariffed services.' (AT&T comments at 6.) The commission disagrees with AT&T. First, as noted previously, subsection (1)(4) explicitly provides for the possibility of service unbundling and requires, when it does happen, that 'the LEC shall carefully reexamine the identification of groups of services that share significant common costs.' Clearly, if the NACBL and NACCBL are offered on an unbundled basis as separately tariffed services, the costs associated of providing them would not be a cost common to other services. AT&T's concerns, therefore, are unwarranted. Second, it would be impractical and undesirable for s23.91(d)(6) to enumerate exhaustively all services for which the LRIC study shall exclude the costs associated with the provision of NACBL and NACCBL. Obviously, however, there will be a good number of services to which the costs associated with the NACBL and NACCBL are common and for which LRIC studies should, consistent with the costing principles of s23.91,

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exclude such common costs as well. Therefore, when the costing principles of s 23.91 are consistently and correctly applied there should be no 'unfair coloring and inconsistent exclusion of costs' from LRIC studies.

The GTE Companies comment that 'the loop or NAC is not a cost common to other services or BNFs' because 'a cost element should not be treated as common simply because costs do not vary with minutes and calls.' (The GTE Companies comments at 15.) The commission disagrees with the GTE Companies' characterization that the proposed rule designates the costs associated with providing NACBL and NACCBL as common 'simply because [their] costs do not vary with minutes and calls.' The reason why the proposed rule designates the costs associated with the provision of NACBL and NACCBL as common is because these functions provide access to the public switched network without which a large number of services simply could not be provided. To the extent, therefore, that the costs of the NACBL and NACCBL are volume insensitive, and as long as these functions are not available on an unbundled basis, the costs of the NACBL and NACCBL are classic examples of costs common to a group of services and, as such, should properly be excluded from LRIC studies for individual services. Instead, the cost recovery responsibility of the volume insensitive costs of the NACBL and NACCBL should be attributed to all services requiring the use of these BNFs collectively,

SWB comments that 'the loop of Local Exchange Service is ... dedicated to a specific customer's use. Thus, loop costs are properly attributed to this customer. Therefore, 'using cost-causative principles, one must conclude that ordering basic local exchange service causes the NAC costs for that customer.' (Emphasis added) (SWB comments at 8.) The commission notes that the proposed rule makes no statement on whether or not the costs of the NACBL and NACCBL are common to customers. Section 23.91(d)(6) only asserts that to the extent that the costs of the NACBL and NACCBL are volume insensitive, and as long as these functions are not available on an unbundled basis, the costs of the NACBL and NACCBL are classic examples of costs common to services that should be excluded from LRIC studies for individual services.

GSC comments on s23.91(d)(6) that 'PBX trunks, multiline business lines, Centrax station lines, and coin service should also contain this exclusion since these services likewise share common facilities, e.g., local loops.' (GSC comments at 9.) The commission disagrees with GSC that specific references to these services need to be included in the rule. As noted previously, it would be impractical and undesirable for s23.91(d)(6) to enumerate exhaustively all services for which the LRIC study shall exclude the costs associated with the provision of NACBL and NACCBL. Nonetheless, the commission clarifies that the intent of the language in subsections (d)(6) and (g)(3) would require that the individual LRIC studies for business local exchange service provided over PBX trunks shall exclude any volume insensitive costs associated with the use of the NACBL or NACCBL.

In view of the above comments, however, the commission adds language to further reduce the possibility that subsection (d)(6) is misunderstood. First, the commission substitutes the term 'attribute' for 'assign' to underscore

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the proposed rule's emphasis on cost-causation principles and its prohibition on arbitrary allocations of costs. For the same reasons, the commission adds the phrase 'cost recovery responsibility of these costs.' Further, the commission inserts the phrase 'as these services are tariffed on the effective date of this section' to make clear that the provisions of the latter part of subsection (d)(6) pertain to currently tariffed services. (The same modification is made in subsection (g)(3).) Last, the commission inserts the phrase 'volume insensitive' to reflect the added distinction between volume sensitive and volume insensitive costs defined in subsection (c)(23)-(24).

In regard to subsection (e), TSTCI comments that the commission 'needs to include how customer-specific costs for customer-specific contracts should be addressed.' (TSTCI comments at 7.) The commission believes that because the costing principles developed in the proposed rule are general and consistent with economic theory there is no need to add specific language for customer-specific contracts.

STA comments that 'since the station lines associated with Centrax- or Plexar-type service provide more than access to the LEC network, the interface associated with these lines should constitute a new required BNF.' (STA comments at 3.) The commission does not believe that subsection (e)(2)(A) needs to be changed at this time. The language of the proposed rule is sufficiently flexible to assure that if the costs to provide the interface for Centrax- or Plexar-type service is systematically different, then a separate BNF can be identified.

AT&T suggests that the titles of subsections (e)(1) and (2) should read, respectively, 'Required BNFs for subcategory Network Access (NA) Channel:' and 'Required BNFs for subcategory [Network Access] NA Channel Connection:' (AT&T comments at 9.) The commission agrees and modifies the language as suggested by AT&T.

AT&T comments that 'language that merely encourages disaggregation is inconsistent with the definition of BNFs and will provide an opportunity for subversion of the rule.' Therefore, AT&T recommends that the last sentence of subsection (e)(3)(B) be modified to read: 'The company shall disaggregate this BNF into smaller BNFs that capture the variety of features and functions available to customers.' (AT&T comments at 7.) AT&T's comments are a further illustration of the tension between the need to specify BNFs at an appropriate level of detail and the need to give the LECs a sufficient degree of freedom and flexibility to identify BNFs that reflect the cost causative relationships for their individual companies. The commission believes, however, that the proposed language is appropriate and makes no changes.

In regard to subsection (e)(6)(D), GSC comments that 'similar functions, but with different cost characteristics, should not be combined to create one averaged BNF.' (GSC comments at 9.) The commission agrees with GSC but does not believe that any changes are needed to remedy this concern because subsections (e)-(f) already allow for the identification of new BNFs or additional cost drivers to accommodate instances in which costs differ systematically.

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During the workshops on the proposed rule, comments were made that the phrase 'local transport' in subsection (e)(6)(D) should be replaced by the phrase 'network access,' which is more consistent with the language used elsewhere in the proposed rule. The commission agrees with that comment and changes subsection (e)(6)(D) accordingly.

In regard to subsection (e)(7)(B), MFS comments that 'the definition of the 'Dedicated Transport Facility' BNF should not dictate that the LECs perform cost studies for this BNF using the economies of shared wideband digital fiber optic carrier systems.' MFS asserts that 'cost studies should be based upon the least cost technology for the BNF, as dictated by the general principle in subsection (d)(2), whether that technology is fiber optics or something else.' (MFS comments at 6.) MFS makes the same comments in regard to subsection (e)(8)(B). The commission agrees with MFS that the proposed rule should not dictate specific technologies as least cost technologies and modifies subsection (e)(7)(B) and (e)(8)(B) accordingly.

STA comments that subsection (e)(9) needs to be modified so that the BNF for Billing and Collection is not assigned costs associated with the provision of Operator Services. (STA comments at 3.) The commission appreciates STA's concern but believes that the language in the proposed rule is sufficiently clear to prevent such a mis-assignment of costs; therefore, no change is made.

During the workshops on the proposed rule, comments were made that the term 'guidelines' that appears in a number of subsections leaves the companies too much discretion. The commission agrees and substitutes the phrase 'instructions' in subsections (f), (g), and (i).

AT&T, MCI, GSC, OPUC, and TSTCI comment on the relevant increment of output prescribed in subsection (f)(1).

Agreeing with the proposed rule, AT&T comments that 'the appropriate costing standard to detect subsidization of competitive services by monopoly services is the total service long run incremental cost standard.' (AT&T comments at 2.) MCI, also agreeing with the proposed rule, makes the same observation and comments that Total Service LRIC 'is the appropriate measure of cost, and ensures that all of the costs associated with the provision of a function will be captured by the study.' Further, MCI asserts that '[n]o proper incremental cost study would use a demand increment other than total current demand levels, and the requirement should therefore be made general in application.' (MCI comments at 8-9.)

GSC's comments pertain to the use of a long run framework in conjunction with the requirement that cost studies use current demand levels. (GSC comments at 3.) Likewise, OPUC notes that the requirement in subsection (f)(1) that the relevant increment of output is 'the level of output necessary to satisfy total current demand levels for all services using the BNF in question,' 'clearly [is] not planning related.' (OPUC comments at 11.) The commission disagrees with OPUC and GSC and refers to the general discussion of how the term 'long

run' is used in the proposed rule and the response to GSC's comments on subsection (c)(14). The commission makes no changes in response to these comments.

TSTCI notes that it may not be appropriate to use current demand levels for cost studies under subsection (f)(1) when it concerns demand generated by new services that may experience considerable growth. (TSTCI comments at 8.) The commission agrees with TSTCI and has modified subsections (f)(1), (g)(4), and (i)(1) to allow LECs to use demand forecasts when 'demand can demonstrably be anticipated to increase significantly over the course of six months.'

AT&T comments that the proposed rule 'requires the LRIC studies of LECs to avoid the use of embedded costs data 'to the extent possible.' AT&T argues, correctly, that 'embedded costs are alien to the concept of LRIC costing. Therefore, according to AT&T 'the use of this phrase opens what is possibly a very broad and ambiguous loophole in the incremental costing requirement. (AT&T comments at 9.) The commission agrees with AT&T and revises subsections (f)(2), (g)(5), and (i)(2), accordingly.

In regard to subsection (f)(2)(A), OPUC comments that 'these proposed rules were constructed under the caveat that in the long run there will exist 'common' costs which will not be attributable to any offering or group of offerings. Proposed s23.91(f)(2)(A). (Emphasis added.) (OPUC comments at 10.) Elsewhere, OPUC comments that 'common costs ... are arbitrarily handled by simply 'excluding' them from the cost studies.' (OPUC comments at 5) The commission disagrees with OPUC's characterization of the proposed rule. In fact, the proposed rule is expressly constructed to assure that all costs that cannot be properly attributed to individual BNFs or services are attributed to the appropriate groups of BNFs or services. Specifically, subsections (h) and (i) require LECs to attribute common costs to the specific groups of services that brought those costs into existence.

GSC comments that subsection (f)(4), which requires the LEC to use in its cost studies the existing network topology, should be expanded to allow for planned network expansions. (GSC comments at 10) SWB makes the same suggestion in reference to subsection (g). (SWB comments at 6 of Attachment A.) The commission agrees with GSC and SWB and modifies subsections (f)(4), (g)(7), and (i)(4) accordingly.

A number of parties comment on the cost of money and rate of depreciation to be used in cost studies. The proposed rule requires that the company use 'the most recent commission approved' rate of return and rates of depreciation for the company. GSC, MCI, and SWB comment that it would be more in keeping with the intent of the proposed rule to allow companies to deviate from commission approved rates where it is demonstrably appropriate. In regard to subsection (f)(5), GSC comments that 'a forward looking incremental cost of money should be used in LRIC studies.' (GSC comments at 10.) MCI comments that 'subsections (f)(5), (g)(9), and (i)(5) of the proposed rule specify that the most recent Commission-approved rates ... be used. The Commission should consider whether the LEC should be permitted to propose alternative

depreciation rates, ... subject to Commission approval.' (MCI comments at 9.) A similar comment is made by SWB. SWB maintains that 'over the long run, these approved [rate of return and depreciation rates] may not reflect the true economic costs of deploying additional capital or the loss in value of that capital over time (depreciation). The rule should permit depreciation rates and cost of money rates that are justified by the facts at the time the cost will occur rather than cost surrogates that are not forward looking.' (SWB comments at 18.) In view of the above comments, the commission modifies subsections (f)(5) and (6), (g)(8) and (9), (i)(5), and (6), to permit the LEC to use rates for depreciation and cost of money other than commission approved rates when it can demonstrate that other rates are appropriate. However, there will remain a presumption of reasonableness when the LEC uses commission approved rates for its company.

OPUC suggests that there exists an inconsistency between the provisions of subsections (f)(1) and (7). Subsection (f)(1) requires the LEC to use total current demand levels. Subsection (f)(7), on the other hand, requires that 'when identifying the 'appropriate' measure of unit cost, the company is instructed to ignore the current rate structure for tariffed services using the BNF.' OPUC comments that 'it is unclear how current demand can be divined without current rate structures being in place.' (OPUC comments at 11.) The commission does not believe that there exists a conflict between the provisions of the two subsections. First, subsection (f)(7) does not negate the obvious relationship between service demand and the level and structure of service rates. However, to the extent that current tariff structures suggest causal relationships between output and costs, the provisions that the LEC 'shall ignore the current rate structure' allow the cost analyst to take an unprejudiced view at cost causation. Further, total current demand should be a quantity that is readily ascertainable by the LEC.

In subsection (f)(7), AT&T notes a typographical error. The second sentence should read, 'The measure of unit cost chosen for a BNF shall correspond to the basis upon which the costs of the BNF are incurred.' (AT&T comments at 9.) The commission agrees and modifies the language accordingly.

OPUC, TSTCI and GSC comment on the provisions of subsection (f)(8). Subsection (f)(8) provides that 'the LEC shall calculate unit cost for the BNF based on the assumption of full capacity utilization.' OPUC maintains that the assumption of full capacity utilization 'do not jibe with those relating to current demand for the relevant increment of output and LCT [least cost technology], the LCT's current availability, and existing topology.' (OPUC comments at 12.) TSTCI expresses concerns that are similar to OPUC's. TSTCI fears that there will be 'under assignment of cost ... because the current demand level (including engineered spare capacity) is almost always going to be less than full capacity (which also includes engineered spare).' (TSTCI comments at 8.) Expressing much the same concern, GSC comments that 'a more realistic fill factor that represents an average for the planing period, or some other averaging of actual or projected fill factors should be used' lest unit cost understate true costs.' (GSC comments at 11.) The commission believes that the concerns of OPUC, TSTCI and GSC are unfounded. Subsection (f) (3)

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requires, for the purposes of the LRIC studies, that the capacity of the least cost facilities are assumed to be optimally sized to satisfy current demand levels. This implies, by assumption, that there is full capacity utilization, allowing, of course, for excess capacity due to lumpy investments or technical requirements, such as spare capacity needed for testing and maintenance. Therefore, when unit costs are calculated based on full capacity utilization, unit costs, by construction, must reflect all costs brought into existence as a result of the unit's production in the long run. To the extent, however, that the embedded cost structure of the company reflects excess capacity greater than what is needed to account for lumpy investments or technical requirements, the resulting cost differential is an uneconomic cost that is properly excluded from cost studies. (The commission will address the recovery of uneconomic costs during the pricing proceeding referenced in subsection (p)).

From comments taken during the workshops on the proposed rule, the commission learned that the term 'engineered spare capacity' in subsection (f)(8) is not unambiguous. Therefore, the commission changes the phrase in subsection (f)(8) to 'spare capacity due to lumpy investments or technical requirements, such as spare capacity needed for testing.' Subsection (f)(8) is further modified to reflect the added distinction between volume sensitive and volume insensitive costs introduced under subsections (c)(23)-(24).

Both Sprint and TEXATEL comment on the cost drivers specified in proposed subsection subsection (f)(10). Sprint comments that 'certain network components are provisioned to meet busy hour capacity. Sprint opposes, however, cost studies developed to establish BNF costs based on the time of day as proposed in subsections (f)(9).' (Sprint comments at 2.) TEXATEL comments that the proposed rule 'for the first time suggest Time of Day (TOD) costing. TEXATEL is not necessarily highly opposed to this idea (as it likely does make economic sense) but is gravely concerned that this is a highly complex addition to this costing concept.' (TEXATEL comments at 2.) While the commission appreciates the concerns of Sprint and TEXATEL, it believes that the LECs should be able to account for cost variations caused by the time of day where such variations are significant. The commission makes no changes in response to these comments.

TEXATEL expresses concern that the rule 'appears to envision one LRIC study for all services,' in contrast to the workshop discussions which appeared to envision a series of LRIC studies to be performed. (TEXATEL comments at 3.) The commission clearly does not intend for only one LRIC study to be performed for all services, and has modified the language in subsections (g) and (i) to ensure that it is unambiguous that a separate LRIC study is to be performed for each tariffed service, and for each group of services that share significant common costs.

Subsection (j) of the proposed rule requires the LEC workplans to be filed within 45 days of the effective date of the rule. Several parties comment that the proposed time period is too short to adequately comply with the requirements of the workplan. TSTCI contends that the proposed time period is too restrictive, regardless of the size of the LEC. Furthermore, 'If at some future date the small companies are required to comply with this provision they

could not meet this 45 day deadline, primarily because of the lack of resources.' (TSTCI comments at 8.) The GTE Companies recommend that the requirement be modified to 45 work days. (The GTE Companies comments at 19.) SWB comments that the 45 day requirement is 'burdensome,' and suggests that it be changed to 120 days. (SWB comments at 9 and Attachment A, at 8.) In light of these concerns, and considering the importance of having a thorough, complete, and well-developed workplan, the commission agrees to extend the time period for filing the workplan. The workplan must now be filed within 70 days of the effective date of the rule. Accordingly, the commission also extends the time schedule for the parties to review the LEC workplan in subsection (m)(2), and to request a suspension of the workplan review process in subsection (m)(4).

Subsections (j)(4)(A) and (B) of the proposed rule allow a maximum of 30 months from the effective date of the section for the LEC to complete all required cost studies, while requiring the LEC to justify a cost study completion date which is longer than 18 months following the effective date of the section. CENTEX contends that this schedule is 'needlessly long,' and notes that in other states LECs have been able to complete LRIC studies for all services in approximately one year. CENTEX suggests that the LEC be given a maximum of 18 months to complete all required studies, and be required to justify each study completion date longer than 12 months from the effective date of the section. (CENTEX comments at 8-9.) SWB argues that the proposed schedule is 'unrealistic' and 'cannot be met.' SWB contends that 'while it is possible to do some cost studies within a short time frame, other studies require up to twelve months to complete. Moreover, the latter time period is under the environment when the methodology is already defined and understood by the cost analysts involved. The new rule may propose new models, methods and additional requirements which can only have the effect to extend the time needed to complete studies.' (SWB comments at 9-10.) The commission disagrees with both CENTEX and SWB, and maintains that the proposed time schedule for the completion and filing of cost studies is appropriate. In response to CENTEX's comment that LECs in other states have completed studies for all services within a year, the proposed rule requires the LEC to perform studies for BNFs, in addition to services, and the commission recognizes that this may take additional time, for which the schedule should allow. In response to SWB's concerns, the commission believes that the proposed schedule allows ample time for the LEC to incorporate the concepts and requirements set forth in this rule, and to perform the necessary cost studies, including those that may take 12 months to complete. Therefore, no change is made.

The GTE Companies and SWB criticize the proposed rule for not addressing the protection of confidential and proprietary information. Both parties comment on the need to protect cost information as well as cost models. (The GTE Companies comments at 16-17, SWB comments at 16-17.) The GTE Companies express concern for the disclosure of 'intellectual property and technical information which is viewed as confidential, highly sensitive and proprietary by the various equipment vendors or licensors.' Furthermore, the GTE Companies comment, this information is only released to the GTE Companies under strict non-disclosure agreements and other protective measures, under which it 'cannot be released to third parties without the consent of the source company.' (The GTE Companies

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comments at 16.) SWB expresses a similar concern, stating that some of its cost models 'require a fee for use under a license agreement from a software vendor.' (SWB comments at 16.) The GTE Companies point out that '[i]n the case of GTE-developed models, the software and documentation in question represent original work and have been specifically developed by GTE personnel, at the expense of a substantial amount of time, money, and resources, for its exclusive internal use.' (The GTE Companies comments at 17.) Likewise, SWB states that it has developed some of its cost models 'at great expense.' (SWB comments at 16.) SWB maintains that its cost models are 'intellectual property that is not part of the public domain.' Furthermore, SWB comments '[t]he proposed rule's mandate of open algorithms and models raises property rights implications.' (SWB comments at 16.) SWB also comments on the competitive harm that could result from the disclosure of its cost information and models to competitors: '[t]he Commission should not place SWB at a competitive disadvantage by permitting public disclosure of cost information and cost studies.' (SWB comments at 17.) SWB suggests language to be added to the proposed rule that would require the examiner or staff to implement procedures to protect LEC proprietary or confidential data.

CENTEX also addresses the issue of confidentiality. CENTEX asserts that in order to review the workplans and LRIC studies 'in a thorough and meaningful way' the commission and all interested parties will need access to 'all relevant LEC information, including information which the LECs assert is proprietary and confidential.' (CENTEX comments at 9-10.) CENTEX suggests language to be added to subsections (m) and (n) of the proposed rule, which would require the LECs to make information 'available to all requesting parties unless such data are proprietary to third parties (e.g., the prices charged to the LECs by switch vendors).' CENTEX's proposed language would also prohibit LECs from either requiring parties to enter into confidentiality agreements in order to obtain cost study data or limiting review to the LEC's premises 'unless the Commission specifically finds that disclosure of some part of the cost study data or results would create a significant risk of competitive harm to the LECs.' Furthermore, CENTEX's language would ensure that the LECs bear the burden of proving that the disclosure of cost study information would be detrimental to them, and it cautions the LECs to limit their requests for proprietary treatment of cost study information as much as possible. (CENTEX comments at 10.)

The Texas Open Records Act, Texas Civil Statutes, Article 6252-17a, § 3(a) (hereinafter the 'Open Records Act'), provides that '[a]ll information collected, assembled, or maintained by or for governmental bodies, except in those situations where the governmental body does not have either a right of access to or ownership of the information, pursuant to law or ordinance or in connection with the transaction of official business is public information and available to the public...' To attain its statutory objectives, the Public Utility Regulatory Act (PURA), Article V, Texas Civil Statutes, Article 1446c, grants the commission the right of access to information; consequently, the commission considers all information 'collected, assembled, or maintained' by it to be presumptively public information. While the Open Records Act excludes from this designation many categories of information, GTE and SWB have neither

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alleged nor demonstrated that the information for which they seek proprietary safeguards falls within any exception to the Open Records Act. The commission cannot prescribe access to information that is more restrictive than the Open Records Act. It therefore declines to modify the proposed rule in response to the comments of CENTEX, GTE and SWB. The commission notes, however, that this rule does not preclude an LEC from making a showing to entitle the LEC to protection of information that it considers confidential.

The contrasting viewpoints of the commenting parties suggest the need for a means to expeditiously resolve issues related to confidentiality. However, rather than adopting specific rule provisions, the commission believes that the resolution of issues relating to the identification and protection of confidential information are best addressed in the context of the workplan review. Therefore, the commission adds subsection (j)(7) to the rule, which requires that the LECs identify information to be filed pursuant to this section that the LEC considers to be confidential and/or proprietary; provide an explanation to substantiate the designation of 'confidential' and/or 'proprietary'; and propose a procedure for the treatment of such information. Like the other components of the workplan, the LECs' filings for the identification and proposed treatment of such information will be subject to the review of the parties and the Examiner. Adoption of this procedure by the commission does not constitute any presumption as to the confidentiality of LEC information.

Subsections (m) and (n) set forth a review process for the LEC workplan and LRIC studies, respectively. MFS comments that while an expedited review process for LEC workplans is desirable so that LRIC studies are filed in a timely manner, the examiner should have the authority to reject a deficient workplan. MFS contends that this is necessary since it is possible that a LEC could file such a deficient or incomplete workplan that it 'would not be practicable for the staff to recommend and the presiding examiner to review the modifications necessary to bring it into compliance.' MFS adds that the authority to reject a workplan should be exercised 'only in the most extreme circumstances.' (MFS comments at 8.) MFS comments that the examiner should also be able to reject a deficient LRIC study, adding 'there is likely to be more need for rejection of cost studies than in the case of workplans.' (MFS comments at 8.) The commission believes that MFS's concerns are adequately addressed by subsections (m)(1) and (n)(1), which require the LEC workplans and LRIC studies to be reviewed for sufficiency. If the presiding examiner or staff concludes that material deficiencies exist, the LEC shall be notified of the deficiency and required to file a corrected workplan or study. This process ensures that only a non-deficient workplan or study will be approved by the examiner. Thus, there is no need to allow an examiner to reject a workplan or study on the grounds that the workplan or study is deficient.

MFS's comments, however, do indicate that some clarification is necessary in subsections (m)(2)(E) and (n)(2)(E). As proposed, these subsections allow the examiner to either approve the study or workplan or 'approve the workplan (LRIC study) with modification.' Although the rule implicitly requires that the LEC refile a workplan (LRIC study) prior to approval, 'with modification,' the

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commission is concerned that the proposed language is not sufficiently clear on this point. Therefore, the commission modifies the language in subsections (m)(2)(E) and (n)(2)(E) to read as follows: 'The examiner shall approve the workplan (LRIC study) or order the LEC to refile the workplan (LRIC study) incorporating all modifications recommended by the examiner.' (Emphasis added.)

Furthermore, MFS comments that the expedited review process for LRIC studies 'does not allow interested parties a sufficient opportunity to contest a LEC cost study that is based on questionable data or assumptions,' and recommends that the commission adopt one of two alternate revisions to remedy this. First, the commission could allow the examiner to reject the cost study if it cannot be modified and to require that the study be docketed and set for hearing if the examiner finds there to be any material issue of fact as to the validity of the study. Alternatively, MFS recommends that the commission adopt a rule stating that 'approval of a cost study by the examiner permits that study to be used as prima facie evidence of the LEC's costs in other proceedings, but does not bar other parties from introducing additional evidence of costs in opposition to that study or from presenting evidence that the study is not in compliance with the rule.' (MFS comments at 9.) MFS further notes that if the commission intends to rely upon the cost studies in setting rates, 'then s42 and s43 of PURA require that there be some opportunity to contest these studies in an evidentiary hearing.' (MFS comments at 9.) Similarly, TEXALTEL expresses the concern that the rule 'anticipates no Commission action on either the work plan or the LRIC studies.' TEXALTEL asserts that the commission should be called upon to approve the studies, in order to ensure that all parties 'have an opportunity to be heard if they object to some part of the studies and assures that the Commission, by taking action on the studies, has expressed support of their subsequent use for pricing purposes. Furthermore, TEXALTEL comments, '[a]bsent such action, based on our understanding of 'res judicata,' the issue of the appropriateness of the LRIC studies is open for litigation in any subsequent proceeding.' TEXALTEL recommends that parties be given a right to a hearing at some point before rates are finally set that may rely on the LRIC studies. Upon conclusion of staff review, TEXALTEL recommends scheduling the studies for commission consideration and giving parties an opportunity to participate, 'perhaps in a framework similar to rulemakings.' (TEXALTEL comments at 4-5.) The commission appreciates the concerns expressed by MFS and TEXALTEL. Because these concerns, however, pertain to the setting of rates based on the LRIC studies, they are more appropriately addressed and resolved in the context of the pricing rule, referenced under subsection (p).

TEXALTEL expresses concern that the administrative approval process for LRIC studies will exclude the participation of all parties except Staff and the LECs, and cites several reasons for its concern. First, TEXALTEL contends that 'there are no requirements that the LECs provide their studies to other interested parties or that they even make them timely available.' (TEXALTEL comments at 3.) TEXALTEL recommends that participating parties be placed on a service list and service required on all documents. TEXALTEL contends that the time frames for review are 'totally unworkable if parties must hunt around at the Commission to find out what has been filed.' LECs should be required to

provide participating parties with copies of their workplans and LRIC studies. (TEXALTEL comments at 4.) The commission disagrees with TEXALTEL's suggestions. Requiring the LECs to maintain service lists and to furnish each party with copies of all documents is burdensome. The documents will be filed at the commission, and will therefore be available to all interested parties. Furthermore, the commission believes that the new subsection (a), pertaining to notification requirements, discussed below, adequately addresses TEXALTEL's concerns about not knowing when documents have been filed pursuant to this section.

Second, TEXALTEL contends that, because the studies are voluminous, the timeline provided in the proposed rule for review of the LRIC studies is 'very inadequate.' TEXALTEL recommends that the 45-day review period in subsection (n)(2)(A) be extended to 120 days from the date the studies are given to interested parties. (TEXALTEL comments at 3-4.) The commission is not convinced that an extension of the time to review LRIC studies is warranted. The commission does find, however, that the time schedules for the parties to review both the workplan and the LRIC studies in subsections (m)(2) and (n)(2), respectively, should be keyed off the date a sufficient workplan or study is filed, and modifies the language accordingly. This ensures that time for the parties to review the workplan or LRIC study will not be cut short if a deficient workplan is filed. Furthermore, the commission contends that provisions set forth in subsections (m)(4) and (n)(4) which allow a party to suspend the review process for 30 days, for good cause, provide sufficient flexibility in the timeline for review.

Third, TEXALTEL comments that although subsections (m) and (n) refer to 'any party that demonstrates a justiciable interest,' there is neither a definition of who such a party is nor a procedure for resolving controversy over what constitutes a 'justiciable interest.' TEXALTEL suggests that this be accomplished by assigning an examiner 'to manage the process and to rule on intervention requests, discovery disputes, or other matters.' (TEXALTEL comments at 4.) The commission agrees with TEXALTEL that a means for resolving such disputes is necessary, but points out that subsections (m) and (n) of the rule already provide for the assignment of an examiner to preside over the administrative review process.

Proposed subsections (m)(3) and (n)(3) require the LECs to respond to requests for information about the workplan and LRIC studies within 10 days after receipt of the request. SWB comments that it needs more than 10 days to respond to requests for information about the workplan and LRIC studies, and suggests a minimum turnaround time of 25 days. (SWB comments at 9 and Attachment A, at 11.) The commission agrees to extend the request for information response time for the workplan only to 15 days and modifies the language in (m)(3) accordingly. Since, as discussed previously, the commission has agreed to extend both the LECs' deadline for filing the workplan, and the time schedule for the parties to review the workplan, extension of the time for a LEC to respond to requests for information about the workplan to 15 days will not require a further extension of the time schedule. If, however, the request for information turnaround time for the LRIC studies were to be extended, the

timeline for review of the studies would have to be extended accordingly to provide ample time for discovery. The commission does not believe that such an extension is necessary or desirable, and therefore, declines to extend the RFI response time for LRIC studies.

AT&T notes a typographical error in subsection (m)(4): in the first sentence, the word 'than' should be changed to 'that.' (AT&T comments at 9.) The commission modifies the language accordingly, and makes a similar change to subsection (n)(4) where the same error also appears.

AT&T comments that although the proposed rule gives interested parties an opportunity to comment on workplans and LRIC studies, it does not provide for notice of these filings. (AT&T comments at 8.) AT&T suggests language that would require the commission to publish notice of these filings in the Texas Register. The commission agrees that such notice would be beneficial and adds subsection (o), Notice Requirements, to provide for notice of a LEC's intent to file a workplan or LRIC study pursuant to this section.

New subsection (p) provides for the initiation of a rulemaking proceeding to develop a pricing methodology for LEC services six months after the effective date of the LEC workplan. MCI expresses support and 'strongly encourages the Commission to initiate a rulemaking on pricing principles without delay.' (MCI comments at 11-12.) In its comments, SWB supports the approach the commission has taken in separating costing and pricing issues: 'The proposed rule appropriately leaves the issue of pricing methodology until a later time as the concepts of cost and pricing are separate and distinct. It is imperative that the cost rule not be established with preconceived views regarding pricing and the provision of services.' (SWB comments at 4.) AT&T expresses two concerns with the proposal to key the time period for initiating the pricing rulemaking to the effective date of the workplan. First, there could be confusion over which LEC's workplan will start the clock running. The workplans could have different effective dates, due to differences in the approval process, such as a 30 day suspension. Second, AT&T notes, since review of the workplan can be suspended for 30 days, the effective date could be extended, thereby prolonging the initiation of the pricing rulemaking. AT&T recommends that the commission adopt a date certain for the initiation of the rulemaking, and suggests 270 days after the effective date of this section. (AT&T comments at 8.) TEXALTEL comments that proposed section (o) provides 'unnecessary delays' in the initiation of a pricing rule, and sees no reason that it could not begin immediately. (TEXALTEL comments at 4-5.) Similarly, MFS agrees with the commission's proposal to proceed with a separate rulemaking to address pricing issues, but comments that the commission 'should not wait six to twelve months before even beginning this process.' MFS encourages the commission to begin this process now. (MFS comments at 9.) The commission's intent in timing the initiation of pricing rulemaking from the effective date of the workplan was to ensure that pricing issues were kept separate from the review of the workplan, however, the commission recognizes AT&T's concerns. The commission modifies the language so that pricing rulemaking will be initiated within 180 days after the effective date of this section, not the effective date of the workplan. This modification does not affect the commission's effort to keep pricing issues

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separate from costing issues, especially since, under this timeline, the workplan will likely be approved by the time the pricing rulemaking is initiated. The commission does believe, however, that shortening the time period for the initiation of the pricing rulemaking, as suggested by TEXALTEL and MFS, would interfere with the commission's effort to keep costing and pricing issues separate and may adversely affect the workplan review process. Therefore, the timeline is not shortened.

STA suggests modification of proposed subsections (c) and (d)(4) to require that service-related costs are recovered by the service's rates in the pricing rulemaking proceeding. (STA comments at 3.) The commission believes that STA's concerns relate to pricing issues, and therefore will more appropriately be addressed in the pricing proceeding.

All comments, including those not specifically referenced herein, were fully considered by the commission.

The section is adopted under Texas Civil Statutes, Article 1446c, s16, which provide the Public Utility Commission of Texas with the authority to make and enforce rules reasonably required in the exercise of its powers and jurisdiction, and s18, which provides that the public interest requires that new rules, policies, and principles be formulated and applied to protect the public interest and to provide equal opportunity to all telecommunications utilities in a competitive marketplace.

s23.91. Long Run Incremental Cost Methodology for LEC Services.

(a) Application. This section shall apply to local exchange carriers (LECs), as that term is defined in s23.61 of this title (relating to Telephone Utilities), with annual revenues from regulated telecommunications operations in Texas of \$100,000,000 or more for five consecutive years.

(b) Purpose. This section shall be used to determine the long run incremental costs incurred by LECs in the provision of telecommunications services. The costs determined in this section shall not be used to determine a company's revenue requirement during a proceeding pursuant the Public Utility Regulatory Act, s42 or s43.

(c) Definitions. The following words and terms when used in this section shall have the following meaning unless the context clearly indicates otherwise.

(1) Ancillary Services. The category of basic network functions (BNFs) (as defined in paragraph (2) of this subsection) that provide for certain activities that either support or otherwise are adjuncts to other BNFs or finished services. This category of BNFs consists of three subcategories of BNFs: Billing and Collection; Measurement; and Operator Services.

(A) Billing and Collection. The subcategory of BNFs that provide for the function of compiling the information needed for customer billing, preparing

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the customer bill statement, disbursing the bill and collecting the customer payments.

(B) Measurement. The subcategory of BNFs that provide the functions of assembling, collating and transmitting end office switch recorded call data (occurrence and duration).

(C) Operator Services. The subcategory of BNFs that provide for the provision of a number of live or mechanized assistance functions to aid customers in the following ways: obtaining customer telephone number, street address and ZIP code information (directory assistance); providing new telephone numbers or explanatory information to callers who dial numbers which have been changed or disconnected (intercepts); providing assistance to customers in completing operator handled toll or local calls (collect, credit card, third party, station-to-station or person-to-person); checking busy lines to make sure the line is not out of service (busy line verification); and interrupting busy lines (busy line interruption). These Operator Services are provided to end user customers as well as local exchange and interexchange carriers.

(2) Basic network function (BNF). A discrete network function, which is useful either as a stand-alone function or in combination with other functions, for which costs can be identified.

(3) Capital costs. The recurring costs that result from expenditures for plant facilities that are capitalized. The annual capital costs consist of depreciation, cost of money, and income taxes.

(4) Categories of BNFs. All BNFs shall fall into one of four categories of BNFs. The categories are: Network Access (as defined in paragraph (18) of this subsection); Switching and Switch Functions (as defined in paragraph (20) of this subsection); Dedicated and Switched Transport (as defined in paragraph (10) of this subsection); and Ancillary Services (as defined in paragraph (1) of this subsection).

(5) Common costs. Costs that are not directly attributable to individual cost objects. For the purposes of this section there are three types of common costs: general overhead costs; costs common to BNFs; and costs common to services.

(A) General overhead costs. Costs incurred in operating and managing the company that are not directly attributable to BNFs or services.

(B) Costs common to BNFs. Costs incurred in the provision of BNFs that can not be directly attributed to any one BNF individually but only to a category or subcategory of BNFs collectively.

(C) Costs common to services. Costs incurred in the provision of two or more services that do not vary with changes in the relative proportions of the outputs of those services. Common costs are not directly attributable to

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any one service individually but only to a group of services collectively. In the event a BNF is used in the provision of two or more services then the volume insensitive cost of the BNF is a cost common to the services that use the BNF. However, if the technological requirements for the provision of one service alter the least cost technology choice for common BNFs or common facilities, then the increase in costs caused by the requirements for more advanced technologies is not a common cost but a cost directly attributable to the service that alters the least cost technology choice.

(6) Cost causation principle. The principle that only those costs that are caused by an activity (such as a network function, service, or group of services) in the long run are directly attributable to that activity. Costs are caused by an activity, in the long run, if the costs are brought into existence as a direct result of the activity.

(7) Cost driver. A specific condition, under which a BNF is provided, whose change causes significant and systematic changes in the cost of providing a BNF. For example, if the cost of providing a Network Access Channel varies with the density and size of a wire center, then density and size are cost drivers for that BNF.*

(8) Cost of debt. The rate of interest paid on borrowed money.

(9) Cost of money. The weighted annual cost to the LEC of the debt and equity capital invested in the company.

(10) Dedicated and Switched Transport. The category of BNFs that provide for dedicated or shared transmission transport between two or more LEC switching offices or wire centers. This BNF category consists of two subcategories of BNFs: Dedicated Transport and Switched Transport.

(A) Dedicated Transport. The subcategory of BNFs that provide for full period, bandwidth specific (e.g., DS-0, DS-1, DS-3) interoffice transmission paths between the originating and terminating points of channel connection.

(B) Switched Transport. The subcategory of BNFs that provide for shared interoffice transmission paths between originating and terminating points of switching.

(11) Depreciation expenses. The charges based on the depreciation accrual rates designed to spread the cost recovery of the property over its economic life.

(12) Expenses. Costs incurred in the provision of services that are expensed, rather than capitalized, in accordance with the Uniform System of Accounts applicable to the carrier.

(13) Group of services. A number of separately tariffed services that share significant common costs (as defined in paragraph (5) of this subsection) that are necessary and unique to the provision of those services and are not

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directly attributable to any one service individually. This term also refers to a situation in which two or more groups of services are part of a larger group of services because of significant common costs that are necessary and unique to the provision of all the services in the group but are not directly attributable to any one group or service individually.

(14) Least cost technology. The technology, or mix of technologies, that would be chosen in the long run as the most economically efficient choice. The choice of least cost technologies, however, shall

(A) be restricted to technologies that are currently available on the market and for which vendor prices can be obtained;

(B) be consistent with the level of output necessary to satisfy current demand levels for all services using the BNF in question; and

(C) be consistent with overall network design and topology requirements.

(15) Long run. A time period long enough to be consistent with the assumption that the company is in the planning stage and all of its inputs are variable and avoidable.

(16) Long run incremental cost (LRIC). The change in total costs of the company of producing an increment of output in the long run when the company uses least cost technology. The LRIC should exclude any costs that, in the long run, are not brought into existence as a direct result of the increment of output.

(17) Measure of unit cost. The measure of usage used to calculate unit cost for a particular BNF (for example, a minute of use of a switching function, or a quarter mile of a DS-1 Network Access Channel). The measure of unit costs may be multidimensional; for example, it may have both time and distance components. The measure of unit cost chosen for a BNF shall correspond to the basis upon which the costs of that BNF are incurred.

(18) Network Access. The category of BNFs that accommodate access to other network functions provided by LECs. Access is accomplished by transmission paths between customers and LEC wire centers. This category consists of three subcategories of BNFs: Network Access Channel; Network Access Channel Connection; and Channel Performance and Other Features and Functions.

(A) Network Access (NA) Channel. The subcategory of BNFs that provide the transmission path between the point of interface at the customer location and the main distribution frame, or equivalent (e.g., DSX-1, DSX-3), of an LEC wire center.

(B) Network Access (NA) Channel Connection. The subcategory of BNFs that provide the interface between the Network Access Channel and the LEC wire center switching equipment, subsequent dedicated transport equipment

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(dedicated interoffice circuits), or subsequent channel equipment (dedicated intraoffice circuits).

(C) Channel Performance and Other Features and Functions. The subcategory of BNFs that provide the channel functions associated with transmission or service type (e. g., analog, digital, coin, ISDN), bandwidth conversion, signaling, multiplexing, amplification, and channel performance.

(19) Significant. For the purposes of this section, the qualifying term significant is used to refer to instances in which costs or changes affect total study results by at least 5.0%. This general guideline for when costs or changes are significant may be relaxed by considering the cumulative effect of either including or excluding costs or changes from a study.

(20) Subcategories of BNFs. Groupings of closely related BNFs in a category of BNFs.

(21) Switching and Switch Functions. The category of BNFs that provide for switched access between two or more Network Access Channels or between Network Access Channels and other BNFs, such as interoffice transport. This function is accomplished through the establishment of a temporary transmission path between Network Access Channels in the same switching office; between a Network Access Channel and the interoffice facilities that interconnect switching offices; or between a Network Access Channel and other BNFs. This BNF category shall cover the first point of switching for a customer. This BNF category consists of three subcategories of BNFs: Interoffice Switching; Intraoffice Switching; and Switching Features.

(A) Interoffice Switching. The subcategory of BNFs that provide for: switching between Network Access Channels and Switched Transport facilities which are connected to different wire centers; and switching between Network Access Channels and Switched Transport facilities when a tandem switch is used as the first point of interface to the LEC switched network (e.g., connection of facilities from an interexchange carrier's point of network interface).

(B) Intraoffice Switching. The subcategory of BNFs that provide for switching between two or more Network Access Channels within the same wire center.

(C) Switching Features. The subcategory of BNFs that provide added convenience or capabilities to other BNFs or finished services.

(22) Unit cost. A cost per unit of output calculated by dividing the total long run incremental cost of production by the total number of units.

(23) Volume sensitive costs. The costs of providing a BNF that vary with the volume of output of the services that use the BNF.

(24) Volume insensitive costs. The costs of providing a BNF that do not vary

with the volume of output of the services that use the BNF.

(d) General principles.

(1) Underlying the construction and application of this section is the recognition that the LEC network consists of a finite number of BNFs that, when bundled in various combinations, can be used to deliver and market a vast variety of telecommunications services. Therefore, the determination of the cost of a service and the costs of a group of services under this section shall involve the identification and costing of BNFs.

(2) The LRIC studies that the LEC is required to file under this section shall assume that the company is operating in the long run and employs least cost technologies, as those terms are defined in subsection (c) of this section.

(3) In order to obtain accurate LRIC study results, the LEC shall avoid the use of embedded cost data; expense items and capital costs shall reflect long run incremental costs and the LEC shall justify any instance in which embedded cost data are used. Further, the fact that the costs determined under this section may differ from the company's embedded costs as determined during proceedings under the Public Utility Regulatory Act, s42 or s 43, should in no way cause the company to attribute any of this cost discrepancy to LRIC studies for BNFs, services, or groups of services.

(4) The appropriate methods for service pricing and recovery of the revenue requirement will be developed in the rulemaking proceeding mandated under subsection (p) of this section.

(5) When a BNF is used in the provision of two or more services than the volume insensitive cost of the BNF is a cost common to the services (as defined in subsection (c)(5)(C) of this section) that use the BNF.

(6) When services share significant common costs (as defined in subsection (c)(5)(C) of this section), none of the common costs shall be included in the LRIC studies for the services individually; instead, the company shall identify which services share the common costs and attribute the cost recovery responsibility of these costs to the group of services collectively. Specifically, the individual LRIC studies for residential and business basic local exchange service, as these services are tariffed on the effective date of this section, shall exclude any volume insensitive costs associated with the use of the Network Access Channel Basic Level (as defined in subsection (e)(1)(A) of this section) and Network Access Channel Connection Basic Level (as defined in subsection (e)(2)(A) of this section).

(7) When two or more groups of services share common costs, none of the common costs shall be included in the LRIC studies for groups individually; instead, the company shall identify which groups share the common costs and assign the common cost recovery responsibility of these costs to these groups collectively.

(8) Nothing in this section is intended to either endorse or reject the LEC's current rate and tariff structures.

(a) Identification of Basic Network Functions. The LEC shall identify for each subcategory of BNFs the relevant and separately identifiable BNFs. The determination of the appropriate degree of aggregation of network components, functions, or activities into separately identifiable BNFs shall be consistent with the principles described in subsection (d) of this section. Furthermore, in choosing BNFs, the LEC shall seek to minimize the number of network components, functions, or activities that are not included in BNFs. In addition to BNFs the company identifies under this subsection, the company shall identify for each subcategory of BNFs the following prescribed BNFs:

(1) Required BNFs for subcategory Network Access (NA) Channel:

(A) NA Channel Basic Level: A transmission path which provides less than 1.544 Mbps digital capability. This includes 300 to 3,000 Hz analog voice service.

(B) NA Channel DS-1 Level: A transmission path which has 1.544 MBPS digital capability.

(C) NA Channel DS-3 Level: A transmission path which has 45 MBPS digital capability.

(2) Required BNFs for subcategory NA Channel Connection:

(A) NA Channel Connection Basic Level: An interface for channels which provide less than 1.544 Mbps digital capability. This includes the interface for 300-3,000 Hz analog voice service which is the basic interface for most voice-grade services such as: basic local residential and local business service, PBX trunks, Centrex-type access lines and voice-grade dedicated transport service. In addition, this category includes the interface for four frequency bandwidths provided for audio channels such as: 200 to 3,500 Hz, 100 to 5,000 Hz, 50 to 8,000 Hz and 50 to 15,000 Hz. Also included in this BNF are the interfaces for low-speed data transmission at speeds of 2.4, 4.8, 9.6, 56 Kbps and all other speeds below the T-1 rate of 1.544 Mbps. This interface is for narrowband service.

(B) NA Channel Connection DS-1 Level: An interface for 1.544 MBPS digital transmission channels. This interface connects high capacity wideband transmission channels which operate in a full duplex, time division (digital) multiplexing mode.

(C) NA Channel Connection DS-3 Level: An interface for 45 MBPS digital transmission channels. This interface connects broadband transmission channels which operate in full duplex, time division (digital) multiplexing mode.

(3) Required BNFs for subcategory Channel Performance and Other Features and Functions:

(A) Standard signalling and transmission level capabilities. Signalling and transmission level capabilities suitable for a wide variety of network services and applications associated with the BNF NA Channel Basic Level, as defined in paragraph (1)(A) of this subsection.

(B) Nonstandard signalling and transmission level capabilities and other features. Signalling and transmission level capabilities and other features and functions, other than those defined in subparagraph (A) of this paragraph, such as high voltage protection, multiplexing, and bridging. The company is encouraged to disaggregate this BNF into smaller BNFs that capture the variety of features and functions available to customers.

(4) Required BNFs for subcategory Interoffice Switching: Interoffice Switching. The type of switching that provides for: switching between Network Access Channels and Switched Transport facilities which are connected to different wire centers; and switching between Network Access Channels and Switched Transport facilities when a tandem switch is used as the first point of interface to the switched network (e.g., connection of facilities from an interexchange carrier's point of network interface).

(5) Required BNFs for subcategory Intraoffice Switching: Intraoffice Switching. Switching between two or more Network Access Channels served from the same wire center.

(6) Required BNFs for subcategory Switching Features:

(A) Hunting Arrangements. An optional function available to customers with multiple local exchange access lines in service.

(B) Custom Calling Features. Various optional features which provide added calling convenience.

(C) Central Office Automatic Call Distribution. The provision of call distribution as an integrated function of certain electronic central offices equipped to provide this capability. This function permits an equal distribution of a large volume of incoming calls to predesignated groups of answering positions, referred to as agent positions.

(D) Central Office Based PBX-Type Functions. A business communications system furnished from stored program control central offices that provides the equivalent of customer premises PBX services through the use of central office hardware and software as well as through network access facilities from the central office to the customer premises. Included in this BNF shall be only hardware specific to this type of service, processor or memory usage involved in special features for this type of service, and any software or software right to use fees associated with this type of service.

This BNF should exclude any network functions that are already identified as

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other BNFs.

(7) Required BNFs for subcategory Dedicated Transport:

(A) Dedicated Transport Termination. An interface which provides for the transmission conversions (e.g., multiplexing) required between channel connection and dedicated transport facilities.

(B) Dedicated Transport Facility. The full-period, bandwidth-specific (e.g., DS-0, DS-1, and DS-3), interoffice transmission paths established between two points of dedicated transport termination.

(8) Required BNFs for subcategory Switched Transport:

(A) Switched Transport Termination. An interface which provides for the transmission conversion (e.g., multiplexing) required between the switching function and switched transport facilities.

(B) Switched Transport Facility. The temporary interoffice transmission paths established between two points of switched transport termination.

(C) Switched Transport Tandem Switching. The intermediate points of switching used as an economic surrogate to direct routing of interoffice facilities in the provision of switched transport.

(9) Required BNFs for subcategory Billing and Collection: Billing and Collection. The function of compiling the information needed for customer billing, preparing the customer bill statement, disbursing the bill and collecting the customer payments (this includes any collection activities required for late payment or non-payment of billing amount due).

(10) Required BNFs for subcategory Measurement: Measurement. The function of assembling, collating, and transmitting end-office switch recorded call data (occurrence and duration).

(11) Required BNFs for subcategory Operator Services: Operator Services. The role of providing a number of live or mechanized assistance functions to aid customers in the following ways: obtaining customer telephone number, street address and ZIP code information (directory assistance); providing new telephone numbers or explanatory information to callers who dial numbers which have been changed or disconnected (intercepts); providing assistance to customers in completing operator handled toll or local calls (collect, credit card, third party, station-to-station or person-to-person); checking busy lines to make sure the line is not out of service (busy line verification); and interrupting busy lines (busy line interruption). These Operator Services are provided to end user customers as well as local exchange and interexchange carriers.

(f) LRIC studies for individual BNFs. The LEC shall perform a LRIC study for Copr. (C) West 1994 No Claim to Orig. U.S. Govt. Works

each of the BNFs identified under subsection (e) of this section. The company shall perform the LRIC studies consistent with the principles described in subsection (d) of this section. Additionally, the company shall use the following instructions in determining the LRIC for individual BNFs.

(1) *Relevant increment of output.* For the purposes of this subsection, the relevant increment of output, as that term is used in subsection (c)(16) of this section, shall be the level of output necessary to satisfy total current demand levels for all services using the BNF in question. Adjustments to total service output may be made to reflect the presence of new services for which demand levels can demonstrably be anticipated to increase significantly over the course of six months.

(2) *Relating expenses to BNFs.* The company shall avoid the use of embedded cost data and shall determine expenses consistent with the principles of long run incremental costing.

(A) *Common expenses.* Common expenses that are not directly attributable, using the cost causation principle, to the BNF shall be excluded.

(B) *Nonrecurring expenses.* The expenses of nonrecurring activities shall be separately identified.

(C) *Taxes.* Any tax expenses not directly attributable, using the cost causation principle, shall be excluded from the LRIC study for individual BNFs. Specifically, taxes associated with the provision of services that use more than one BNF shall not be included in the BNF LRICs.

(3) *Least-cost technology.* LRIC studies shall assume the use of least-cost technology. The choice of least-cost technologies, however, shall:

(A) be restricted to technologies that are currently available on the market and for which vendor prices can be obtained;

(B) be consistent with the level of output necessary to satisfy current demand levels for all services using the BNF in question; and

(C) be consistent with overall network design and topology requirements.

(4) *Network topology.* LRIC studies shall use the existing or planned network topology.

(5) *Cost of money.* When the company uses the most recent commission approved rate of return for the company, as that term is used in s23.21(c)(1) of this title (relating to Cost of Service) there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(6) *Rate of depreciation.* When the company uses the most recent commission approved rate of depreciation for the company there will be a presumption of reasonableness. The company shall justify the use of any other rate.

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(7) Measure of unit cost. LRIC studies shall identify the appropriate measure of unit cost for a BNF (e. g., minutes of use, access line). The measure of unit cost chosen for a BNF shall correspond to the basis upon which the costs of the BNF are incurred. The measure of unit cost may be multidimensional; for example, it may have both time and distance components. In identifying the appropriate measure of unit cost, the company shall ignore the current rate structure for tariffed services using the BNF.

(8) Determination of unit cost. Using the measure of unit cost identified under paragraph (7) of this subsection, the company shall calculate unit cost for the BNF based on the assumption of full capacity utilization of the BNF, which should allow for any spare capacity due to lumpy investments or technical requirements, such as spare capacity needed for testing. The unit cost shall be calculated based on the volume sensitive costs of the BNF and exclude all costs that are volume insensitive (as those terms are defined in subsections (c)(23)-(24) of this section).

(9) Determination of volume insensitive costs. The company shall calculate the volume insensitive costs (as defined in subsection (c)(24) of this section) for the BNF.

(10) Cost drivers. LRIC studies shall identify and account for all relevant cost drivers. LRIC studies for certain BNFs shall at a minimum account for the cost drivers specified below.

(A) Cost drivers for NA Channel Basic Level, NA Channel DS-1 Level, and NA Channel DS-3 Level. The LRICs for these BNFs shall systematically account for variations in costs caused by variations in

- (i) the density of a wire center;
- (ii) the size of a wire center; and
- (iii) the distance.

(B) Cost drivers for NA Connection Basic Level, NA Connection DS-1 Level, and NA Connection DS-3 Level. The LRICs for these BNFs shall systematically account for variations in costs caused by variations in:

- (i) the density of a wire center; and
- (ii) the size of a wire center.

(C) Cost drivers for Intraoffice Switching and Interoffice Switching. The LRICs for these BNFs shall systematically account for variations in costs caused by variations in:

- (i) the density of a wire center;

(ii) the size of a wire center; and

(iii) the time of day.

(D) Cost drivers for Dedicated Transport Facilities and Termination. The LRICs for these BNFs shall systematically account for variations in costs caused by variations in:

(i) the size of a wire center; and

(ii) the distance.

(E) Cost drivers for Switched Transport Facilities, Termination and Tandem Switching. The LRICs for these BNFs shall systematically account for variations in costs caused by variations in:

(i) the size of a wire center;

(ii) the distance; and

(iii) time of day.

(F) Cost drivers for Measurement. The LRIC for this BNF shall systematically account for variations in costs caused by variations in:

(i) the density of a wire center;

(ii) the size of a wire center;

(iii) the time of day; and

(iv) the duration of a call.

(G) Cost drivers for Operator Services. The LRIC for this BNF shall systematically account for variations in costs caused by variations in the type of operator services calls.

(g) LRIC studies for tariffed services. The LEC shall perform a LRIC study for each tariffed service, except those services for which a waiver has been granted under the workplan approved under subsection (m) of this section. Each LRIC study for a tariffed service shall be calculated as the sum of the costs caused by that a service's use of BNFs and any other service specific costs associated with functions not identified as separate BNFs, such as expenses of billing, service specific advertising and marketing, and service specific taxes. Each LRIC study for a tariffed service shall be consistent with the principles described in subsection (d) of this section. Additionally, the company shall use the following instructions in determining the LRIC for individual tariffed services:

(1) Mapping of BNFs and costs to tariffed services. The LRIC study shall

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identify the BNFs that are used in the provision of the tariffed service; the long run incremental costs for the tariffed service shall include the costs associated with this usage. The costs associated with the service's use of a BNF shall be calculated as the product of the unit cost for the BNF (as determined under subsection (f)(8) of this section) and the demand of the service for that BNF.

(2) Identification of other costs. The LRIC study for an individual tariffed service shall include all service specific costs (e.g., expenses of billing, marketing, customer service or service specific taxes) related to the provision of the service that are not included in the costs for the BNFs.

(3) Exclusion of common costs. The LRIC study for an individual tariffed service shall exclude any costs that are common costs (as defined in subsection (c)(5) of this section). Specifically, the individual LRIC studies for residential and business basic local exchange service, as these services are tariffed on the effective date of this section, shall exclude any volume insensitive costs associated with the use of the Network Access Channel Basic Level (as defined in subsection (e)(1)(A) of this section) and Network Access Channel Connection Basic Level (as defined in subsection (e)(2)(A) of this section).

(4) Relevant increment of output. For the purposes of this subsection, the relevant increment of output, as that term is used in subsection (c)(16) of this section, shall be the level of output necessary to satisfy current demand levels for the service. Adjustments to total service output may be made to reflect the presence of new services for which demand levels can demonstrably be anticipated to increase significantly over the course of six months.

(5) Relating expenses to services. The company shall avoid the use of embedded cost data and shall determine expenses consistent with the principles of long run incremental costing.

(A) Common expenses. Common expenses that are not directly attributable, using the cost causation principle, to the service shall be excluded.

(B) Nonrecurring expenses. The expenses of nonrecurring activities shall be separately identified.

(C) Taxes. Any tax expenses not directly attributable, using the cost causation principle, shall be excluded from the LRIC study for individual services.

(6) Least-cost technology. LRIC studies shall assume the use of least-cost technology. The choice of least-cost technologies, however, shall

(A) be restricted to technologies that are currently available on the market and for which vendor prices can be obtained;

(B) be consistent with the level of output necessary to satisfy current demand levels for all services using the BNF in question; and

(C) be consistent with overall network design and topology requirements.

(7) Network topology. LRIC studies shall use the existing or planned network topology.

(8) Cost of money. When the company uses the most recent commission approved rate of return for the company, as that term is used in s23.21(c)(1) of this title (relating to Cost of Service) there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(9) Rate of depreciation. When the company uses the most recent commission approved rate of depreciation for the company there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(h) Identification of BNFs and groups of services that share significant common costs and calculation of such common costs. The company shall identify all instances in which BNFs and groups of services share significant common costs and calculate such common costs.

(1) Costs common to BNFs. The company shall identify and calculate for each subcategory of BNFs and category of BNFs significant costs that are common to BNFs (as defined in subsection (c) (5)(B) of this section). Costs common to BNFs shall only be identified and calculated at the level of subcategories of BNFs and/or categories of BNFs.

(2) Costs common to groups of services. The company shall identify and calculate all significant common costs and the groups of services that share those common costs (as defined in subsection (c)(5)(C) of this section). The calculation of common costs required under paragraphs (1)-(2) of this subsection shall be consistent with the principles described in subsection (d) of this section and the instructions listed below.

(3) Relevant increment of output. When common costs are computed for BNFs or services, the relevant increment of output, as that term is used in subsection (c)(16) of this section, shall be the level of output necessary to satisfy current demand levels for the BNFs or the services. Adjustments to total service output may be made to reflect the presence of new services for which demand levels can demonstrably be anticipated to increase significantly over the course of six months.

(4) Expenses. The company shall avoid the use of embedded cost data and shall determine expenses consistent with the principles of long run incremental costing.

(A) Nonrecurring expenses. The expenses of nonrecurring activities shall be separately identified.

(B) Taxes. Any tax expenses not directly attributable, using the cost causation principle, shall be excluded from the cost studies for common costs.

(5) Least-cost technology. The studies shall assume the use of least-cost technology. The choice of least-cost technologies, however, shall:

(A) be restricted to technologies that are currently available on the market and for which vendor prices can be obtained;

(B) be consistent with the level of output necessary to satisfy current demand levels for the BNFs or services in question; and

(C) be consistent with overall network design and topology requirements.

(6) Network topology. Cost studies shall use the existing or planned network topology.

(7) Cost of money. When the company uses the most recent commission approved rate of return for the company, as that term is used in s23.21(c)(1) of this title (relating to Cost of Service) there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(8) Rate of depreciation. When the company uses the most recent commission approved rate of depreciation for the company there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(1) LRIC studies for groups of tariffed services that share significant common costs. The LEC shall perform a LRIC study for each group of services identified under subsection (h)(2) of this section. Each group LRIC shall be calculated as the sum of the LRICs (as determined under subsection (g) of this section) for the services in the group and the common costs for those services (as identified under subsection (h)(2) of this section). Each LRIC study shall be consistent with the principles described in subsection (d) of this section. Additionally, the company shall use the following instructions in determining the LRIC for groups of services.

(1) Relevant increment of output. When the LRIC is computed for a group of services, the relevant increment of output, as that term is used in subsection (c)(16) of this section, shall be the level of output necessary to satisfy current demand levels for the services in the group. Adjustments to total service output may be made to reflect the presence of new services for which demand levels can demonstrably be anticipated to increase significantly over the course of six months.

(2) Relating expenses to groups of services. The company shall avoid the use of embedded cost data and shall determine expenses consistent with the principles of long run incremental costing.

(A) Common expenses. Common expenses that are not directly attributable,
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using the cost causation principle, to the group of services shall be excluded.

(B) Nonrecurring expenses. The expenses of nonrecurring activities shall be separately identified.

(C) Taxes. Any tax expenses not directly attributable, using the cost causation principle, shall be excluded from the LRIC study for the group of services.

(3) Least-cost technology. LRIC studies shall assume the use of least cost technology. The choice of least-cost technologies, however, shall:

(A) be restricted to technologies that are currently available on the market and for which vendor prices can be obtained;

(B) be consistent with the level of output necessary to satisfy current demand levels for all services using the BNF in question; and

(C) be consistent with overall network design and topology requirements.

(4) Network topology. LRIC studies shall use the existing or planned network topology.

(5) Cost of money. When the company uses the most recent commission approved rate of return for the company, as that term is used in s23.21(c)(1) of this title (relating to Cost of Service) there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(6) Rate of depreciation. When the company uses the most recent commission approved rate of depreciation for the company there will be a presumption of reasonableness. The company shall justify the use of any other rate.

(j) Filing requirements for LEC provided workplan. Within 70 days of the effective date of this section, the LEC shall file with the commission and the Office of Public Utility Counsel (OPUC) a plan for compliance with the provisions of this section. The workplan shall be consistent with the principles, instructions and requirements set forth in this section and shall be reviewed in accordance with the procedures established in subsection (e) of this section. The workplan submitted by the LEC shall include the following components:

(1) Identification of BNFs and cost methodology. The workplan submitted by the LEC shall discuss the BNFs identified under this section and include a detailed discussion of the cost methodology the LEC proposes to use for the studies required under this section. Additionally, the workplan shall meet the following requirements:

(A) List of BNFs. The workplan shall include a list of all BNFs that the LEC has identified pursuant to subsection (e) of this section.

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(B) Additional BNFs. If the LEC proposes to identify BNFs in addition to the BNFs identified in subsection (a) (1)-(11) of this section, the workplan shall include a description of each of the BNFs that the LEC proposes to identify, and a discussion of why these BNFs should be identified in addition to the BNFs identified in subsection (a)(1) -(11) of this section.

(C) Definitions of BNFs. For each BNF identified under subsection (a) of this section, the workplan shall include, a precise definition of the BNF, including the points of demarcation in the LEC's network between each BNF and other BNFs.

(D) Diagrams. For each BNF identified under subsection (a) of this section, the workplan shall include a diagram that illustrates the BNF's role in the provision of LEC services.

(E) Least cost technology choices for BNFs. For each BNF identified under subsection (a) of this section, the workplan shall identify which technology or technologies (e.g., fiber optic cable, digital switching systems) will be considered the least cost technology (as defined in subsection (c)(14) of, this section) for the BNF.

(F) Identification of investments. The workplan shall include a discussion of the methodology that the LEC proposes to use in identifying investments associated with each of the BNFs identified under subsection (a) of this section.

(G) Data sources. For each BNF identified under subsection (a) of this section, the workplan shall include a discussion of the data sources to be used in developing the costs of the BNF.

(H) Service demand. For each BNF identified under subsection (a) of this section, the workplan shall include a discussion of the data sources to be used for service demand in developing the costs of the BNF.

(I) Automated cost models. The workplan shall include a description of any automated cost models which the LEC proposes to use in developing the cost of the BNF. For each such automated cost model, the workplan shall provide a detailed description of the algorithm of the cost model and demonstrate that the methodology of the cost model is consistent with the long run incremental cost methodology described in this section.

(J) Flowcharts. For each type of cost study required under this section, the workplan shall include a detailed flowchart that identifies all models used in the study and the interrelationships between the inputs and outputs of the models.

(K) List of cost drivers. For each BNF identified under subsection (a) of this section, the workplan shall identify the cost drivers that the LEC has

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identified pursuant to subsection (f)(10) of this section.

(L) Additional cost drivers. If the LEC proposes to identify and account for cost drivers in addition to the cost drivers identified in subsection (f)(10)(A)-(G) of this section, the workplan shall include a description of each of the cost drivers that the LEC proposes to use, and a discussion of why these cost drivers should be used in addition to the cost drivers identified in subsection (f)(10)(A)-(G) of this section.

(M) Loading factors. The workplan shall include a discussion of the methodology that the LEC proposes to use in identifying operating expenses, depreciation, and taxes relating to each of the BNFs identified under subsection (e) of this section.

(N) Categorization of BNFs. For each BNF identified under subsection (e) of this section, the workplan shall identify the category and subcategory of BNFs (as defined in subsection (c) of this section) under which the BNF is categorized.

(O) Mapping from BNFs to tariffed services. For each BNF identified under subsection (e) of this section, the workplan shall include a list of all tariffed services that use the BNF.

(P) Mathematical representation. The workplan shall include a formal mathematical statement describing the cost relationships between BNFs, tariffed services, and groups of tariffed services. This statement shall translate the principles, instructions and requirements of this section into the traditional mathematical terms used in the economic literature. Specifically, the company shall include a mathematical statement that describes the functional relationship between the long run incremental costs for a tariffed service and a service's use of BNFs.

(2) Identification of costs common to BNFs. The workplan submitted by the LEC shall identify which BNFs share common costs and the sources of the common costs (as identified under subsection (h)(1) of this section).

(3) Identification of groups of services. The workplan submitted by the LEC shall include a list of all groups of services that the LEC has identified pursuant to subsection (h)(2) of this section. The list shall meet the following requirements:

(A) Identification of services in groups. The list shall identify for each group the services that are included in the group. When the group contains smaller groups of services, the smaller groups that are included in the group shall be identified.

(B) Identification of BNFs that represent common costs. The list shall identify the BNFs that represent the common costs for each group of services.

(C) Identification of other common costs. The list shall identify other sources of common costs for each group of services (as identified under subsection (h)(2) of this section).

(4) Proposed schedule for completion and filing of cost studies. The workplan submitted by the LEC shall include a proposed completion and filing date for: the LRIC study for each BNF identified under subsection (e) of this section, including the required BNFs specified in subsection (a)(1)-(11) of this section; the LRIC study for each tariffed service offered by the LEC; and the LRIC study for each group of services identified under subsection (h) of this section. The proposed schedule submitted by the LEC shall meet the following requirements:

(A) If the schedule proposed by the LEC would result in completion of any cost study later than 18 months following the effective date of this section, the LEC should discuss in detail the reasons why the cost study may not be completed within 18 months.

(B) In no event should the schedule proposed by the LEC result in the completion of any cost study later than thirty months following the effective date of this section.

(C) The schedule proposed by the LEC should space the completion and filing of cost studies relatively evenly over the course of the period of time allowed for completing the studies and avoid, to the greatest degree possible, the filing of large quantities of studies at any one date.

(D) The schedule proposed by the LEC shall not result in completion of any LRIC study for a tariffed service before the completion of the LRIC studies for all the BNFs that are used in the provision of the tariffed service.

(5) Prototype LRIC studies for BNFs, tariffed services, and groups of tariffed services. The workplan shall provide prototype LRIC studies for BNFs, tariffed services, and groups of tariffed services, to serve as models for the studies filed pursuant to this section. In devising the prototype studies the LEC shall consider the following instructions.

(A) Completeness. The prototype LRIC studies shall be structured to provide for all information (e.g., inputs, outputs, assumptions) necessary to understand the studies and to reasonably verify their accuracy.

(B) Consistency and efficiency. The company shall seek to organize the prototype studies in a manner that clearly demonstrates the relationships and consistencies between studies. To the extent that a number of studies use automated models, standardized loading factors or other standardized methods, the company shall propose a way of documenting these methods that reduces unnecessary duplication.

(C) PC-based spreadsheets and open algorithms. The company shall create the

prototype studies both on paper and on personal computer based electronic spreadsheets. In designing the personal computer based electronic spreadsheet versions the company shall seek to create an open algorithm that can be used and modified by the commission staff and other users.

(6) Waiver requests.

(A) Waiver for required BNF. The workplan shall include a request for waiver if the company finds that a required BNF specified in subsection (e)(1)-(11) of this section is inappropriate for its network. The waiver request shall be accompanied by a statement demonstrating why the required BNF is inappropriate.

(B) Waiver for required cost driver. The workplan shall include a request for waiver if the company finds that a required cost driver specified in subsection (f)(10)(A)-(G) of this section is inappropriate for its network. The waiver request shall be accompanied by a statement demonstrating why the required cost driver is inappropriate.

(C) Waiver for required LRIC studies for individual tariffed services. The workplan shall include requests for waivers for those services for which the company proposes to not perform a LRIC study.

(7) Proposal for the treatment of information designated as confidential or proprietary. The workplan submitted by the LEC shall include the LEC's proposal for the treatment of information to be filed pursuant to this section that the LEC designates or intends to designate as confidential and/or proprietary. The LEC shall include the following information:

(A) Identification. Identification of the information to be filed pursuant to this section (e.g. cost models, algorithms, data) that the LEC will designate as confidential and/or proprietary.

(B) Explanation. For each item identified in subparagraph (A) of this paragraph, an explanation supporting the LEC's designation of information as confidential and/or proprietary.

(C) Proposal. The LEC's proposal for the treatment of information designated by the LEC as confidential and/or proprietary that the LEC will file pursuant to this section (e.g., a proposed protective agreement).

(k) Requirements for initial filings of LRIC studies. The LEC shall file with the commission and OPUC the LRIC studies required under this section. The LRIC studies shall be consistent with the principles, instructions, and requirements set forth in this section and shall be reviewed in accordance with the procedures established in subsection (n) of this section. In accordance with the workplan, and the waivers therein, approved under subsection (m) of this section, the LEC shall file a LRIC studies for:

(1) each BNF identified under subsection (e) of this section and calculated
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under subsection (f) of this section, including those that are specified as required BNFs under subsection (e)(1)-(11) of this section:

(2) costs common to BNFs as identified and calculated under subsection (h) of this section;

(3) each tariffed services as calculated under subsection (g) of this section; and

(4) each groups of services identified under subsection (h) of this section and calculated under subsection (i) of this section.

(1) Requirements for subsequent filings of LRIC studies. The LRIC studies required by this subsection shall be consistent with the principles, instructions and requirements set forth in this section and the workplan approved in subsection (m) of this section and shall be reviewed in accordance with the procedures established in subsection (n) of this section.

(1) Updated studies. Thirty-six months after the effective date of the section, and every six months thereafter, the LEC shall file with the commission and OPUC updated versions of all filings, other than the workplan, required under this section. The LEC is not required to update its filings for those studies where no significant changes have occurred.

(2) Provisions for new BNFs. When significant technological or other changes occur that necessitate a change in the definition of current BNFs or the identification of new BNFs, the LEC shall file with the commission and OPUC updated versions for all affected LRIC studies or new studies as appropriate.

(3) Provisions for new services. For each application for a service filed pursuant to this title, the LEC shall file with the commission and OPUC a LRIC study for the service consistent with the principles described in subsection (d) of this section and the specific requirements set forth in subsection (g) of this section.

(4) Unbundling of existing tariffed services. When an application filed pursuant to this title proposes a service that previously had been bundled with other BNFs into a tariffed service, the LEC shall carefully reexamine the identification of groups of services that share significant common costs (as required under subsection (h) of this section). If the new service significantly changes the identification of groups of services and the identification of common costs, the LEC should update all studies required under this section that are affected by these changes.

(m) Review process for LEC workplan. An LEC workplan considered under this section shall be reviewed administratively to determine whether the LEC's workplan is consistent with the principles, instructions and requirements set forth in this section.

(1) Sufficiency. The workplan shall be examined for sufficiency. To be sufficient, the LEC workplan shall include the components required by subsection (j) of this section. If the presiding examiner or the commission staff concludes that material deficiencies exist in the workplan, the LEC shall be notified within 15 days of the filing date of the specific deficiency in its workplan. The LEC shall have 15 days from the date it is notified of the deficiency to file a corrected workplan.

(2) Time Schedule.

(A) No later than 60 days after the filing date of the sufficient workplan, any party that demonstrates a justiciable interest may file with the presiding examiner written comments or recommendations concerning the workplan.

(B) No later than 70 days after the filing date of the sufficient workplan, OPUC may file with the presiding examiner written comments or recommendations concerning the workplan.

(C) No later than 80 days after the filing date of the sufficient workplan, the commission staff shall file with the presiding examiner written comments or recommendations concerning the workplan.

(D) No later than 90 days after the filing date of the sufficient workplan, any party that demonstrates a justiciable interest, OPUC, or the LEC may file with the presiding examiner a written response to the commission staff's recommendation.

(E) No later than 100 days after the filing date of the sufficient workplan, the presiding examiner shall complete an administrative review to determine whether the LEC's workplan is consistent with the principles, instructions and requirements set forth in this section. The examiner shall approve the workplan or order the LEC to refile the workplan incorporating all modifications recommended by the examiner.

(3) Requests for Information. While the workplan is being administratively reviewed, the commission staff, OPUC, and any party that demonstrates a justiciable interest may submit requests for information to the LEC. Three copies of all answers to such requests for information shall be provided within 15 days after receipt of the request by the LEC to the commission staff, OPUC and any party that demonstrates a justiciable interest.

(4) Suspension. At any point within the first 60 days of the review process, the presiding examiner, the commission staff, OPUC, the LEC, or any party that demonstrates a justiciable interest may request that the review process be suspended for 30 days. The examiner may grant a request for suspension only if he or she has determined that the party has demonstrated that good cause exists for such suspension.

(5) Effective date of the LEC workplan. The effective date of the LEC
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workplan shall be the date it is approved by the presiding examiner.

(n) Review process for LRIC studies. A LRIC study considered under this section shall be reviewed administratively to determine whether the LEC's LRIC study is consistent with the principles, instructions and requirements set forth in this section.

(1) Sufficiency. The LRIC study shall be examined for sufficiency. To be sufficient, the LRIC study shall conform to the prototype studies developed under the workplan approved under subsection (m) of this section. If the presiding examiner or the commission staff concludes that material deficiencies exist in the LRIC study, the LEC shall be notified within 15 days of the filing date of the specific deficiency in its LRIC study. The LEC shall have 15 days from the date it is notified of the deficiency to file a corrected LRIC study.

(2) Time Schedule.

(A) No later than 45 days after the filing date of the sufficient LRIC study, any party that demonstrates a justiciable interest may file with the presiding examiner written comments or recommendations concerning the LRIC study.

(B) No later than 55 days after the filing date of the sufficient LRIC study, OPUC may file with the presiding examiner written comments or recommendations concerning the LRIC study.

(C) No later than 65 days after the filing date of the sufficient LRIC study, the commission staff shall file with the presiding examiner written comments or recommendations concerning the LRIC study.

(D) No later than 75 days after the filing date of the sufficient LRIC study, any party that demonstrates a justiciable interest, OPUC, or the LEC may file with the presiding examiner a written response to the commission staff's recommendation.

(E) No later than 85 days after the filing date of the sufficient LRIC study, the presiding examiner shall complete an administrative review to determine whether the LEC's LRIC study is consistent with the principles, instructions and requirements set forth in this section. The examiner shall approve the LRIC study or order the LEC to refile the LRIC study incorporating all modifications recommended by the examiner.

(3) Requests for Information. While the LRIC study is being administratively reviewed, the commission staff, OPUC, and any party that demonstrates a justiciable interest may submit requests for information to the LEC. Three copies of all answers to such requests for information shall be provided within 10 days after receipt of the request by the LEC to the commission staff, OPUC and any party that demonstrates a justiciable interest.

(4) Suspension. At any point within the first 45 days of the review process, the presiding examiner, the commission staff, OPUC, the LEC, or any party that demonstrates a justiciable interest may request that the review process be suspended for 30 days. The examiner may grant a request for suspension only if he or she has determined that the party has demonstrated that good cause exists for such suspension.

(5) Effective date of the LRIC study. The effective date of the LRIC study shall be the date it is approved by the presiding examiner.

(o) Notice requirements. At least ten days before an LEC files any workplan or LRIC study pursuant to this section, the LEC shall file with the commission and OPUC a notice of its intent to file such workplan or LRIC study and the expected filing date. The LEC's notice shall indicate that the filing is being made pursuant to this section. The commission shall then publish notice of the LEC's intent to file the workplan or LRIC study in the Texas Register.

(p) Pricing rule. Within 180 days of the effective date of this section, the commission shall initiate a rulemaking proceeding to develop a pricing methodology for LEC services that is consistent with the cost information obtained under this section.

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on August 19, 1993.

TRD-9327671 John Renfrow
Secretary of the Commission
Public Utility Commission of Texas

Effective date: September 10, 1993

Proposal publication date: April 6, 1993

For further information, please call: (512) 458-0100

An agency may take final action on a section 30 days after a proposal has been published in the Texas Register. The section becomes effective 20 days after the agency files the correct document with the Texas Register, unless a later date is specified or unless a federal statute or regulation requires implementation of the action on shorter notice.

If an agency adopts the section without any changes to the proposed text, only the preamble of the notice and statement of legal authority will be published. If an agency adopts the section with changes to the proposed text, the proposal will be republished with the changes.

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