Telecom Regulatory Policy CRTC 2009-274

Route reference: Telecom Public Notice 2008-5, Commission letter dated 10 October 2008

Ottawa, 14 May 2009

Review of the use of company-specific working fill factors and the recovery of past introduction costs not fully recovered

File number: 8661-C12-200814732

In this decision, the Commission renders its determinations with respect to its review, in light of the Policy Direction, of the methodologies used to estimate company-specific working fill factors, and the recovery of past introduction costs not fully recovered when an update of a regulatory economic study associated with a mandated wholesale service is required.

Introduction

1. In Telecom Public Notice 2008-5, the Commission initiated a proceeding and invited parties to comment, in light of the Governor in Council's *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, P.C. 2006-1534, 14 December 2006 (the Policy Direction), on the continued appropriateness of the price floor test[1] for retail services as well as wholesale service costing methodologies.

2. Among other issues, Bell Aliant Regional Communications, Limited Partnership (Bell Aliant), Bell Canada, and Saskatchewan Telecommunications (SaskTel) (collectively, Bell Canada et al.), TELUS Communications Company (TCC) and MTS Allstream Inc. (MTS Allstream) submitted proposals regarding the methodologies related to the use of company-specific working fill factors (WFFs) and the recovery of past introduction costs not fully recovered.

3. In a letter dated 10 October 2008, the Commission decided to address these proposals by way of a separate process. The Commission also directed Bell Canada et al. and TCC to submit a detailed submission on their proposed changes for these two methodologies.

4. In addition to the above parties, Primus Telecommunications Canada Inc. (Primus) and Rogers Communications Inc. (RCI) participated in this proceeding. The record of this proceeding, which closed on 14 January 2009, is available on the Commission's website at www.crtc.gc.ca under "Public Proceedings" or by using the file number provided above.

[1] The Commission first made reference to the price floor test in Telecom Regulatory Policy 2009-80. Prior to that decision, the price floor test was referred to as the imputation test.

Background

5. A new service may use spare capacity of the existing shared network and cause the advancement of the provisioning of future relief facilities. The prospective incremental cost associated with this advancement is called the "cost of advancement." Determination of the cost of advancement involves an assessment of detailed network provisioning plans, which are often complex and not readily available. Generally, the capacity cost method is relied on to estimate the cost of advancement.

6. The capacity cost method determines the per-unit cost of a shared facility by dividing the installed cost of the shared facility by its maximum capacity and then dividing this ratio by the WFF.

7. The WFF is a measure of the utilization of a shared facility and is used to recognize the non-working capacity (spare units, units required for maintenance (i.e. administrative) functions, etc.) of the shared facility, and to apportion the cost of non-working capacity to the per-unit cost of the working capacity.

8. In Decision 2001-238, the Commission determined the WFFs that are appropriate for use by the incumbent local exchange carriers (ILECs) in calculating the unbundled loop service costs, and the local residential primary exchange service (PES) costs to be used in the calculation of each ILEC's total subsidy requirement (TSR).

9. In Telecom Decision 2005-6, the Commission established minimum mandated WFFs to be used in regulatory economic studies.

Issues

10. The Commission has identified the following nine issues to be addressed in its determinations:

I. When should an ILEC be permitted to use company-specific measured WFFs?

II. Should the company-specific measured WFFs filed by the ILECs in this proceeding be approved for use in future regulatory economic studies?

III. When should an ILEC be permitted to use company-specific target WFFs?

IV. Should the company-specific target WFFs filed by the ILECs in this proceeding be approved for use in future regulatory economic studies?

V. When should an ILEC be permitted to use company-specific proxy WFFs?

VI. Should the company-specific WFFs be used to determine the ILECs' TSR?

VII. When should the Commission-mandated WFFs be used?

VIII. Should the recovery of past introduction costs of a mandated wholesale service that have not been fully recovered be allowed? If so, what is the appropriate methodology to estimate these costs and to include them in an updated regulatory economic study of a mandated wholesale service?

IX. Are the determinations in this decision consistent with the Policy Direction?

I. When should an ILEC be permitted to use company-specific measured WFFs?

11. Bell Canada et al. and TCC submitted that regulatory economic studies for all ILEC services, including wholesale services, should be based on company-specific measured WFFs. All parties agreed that if company-specific WFFs are to be used, they should be calculated based on a common definition and a common measurement methodology that are applied consistently across all ILECs, and should be subject to Commission approval.

12. Bell Canada et al. and RCI submitted that company-specific measured WFFs should be consistent across ILECs in similar circumstances. TCC questioned whether this was possible in practice because of the significant differences between the ILECs' current operating territories.

13. Additional points raised on this issue include the following:

- Bell Canada et al. submitted that the company-specific measured WFFs should be representative of the companies' expected utilization level for the facility that is not expected to be surpassed in the foreseeable future.

- RCI submitted that the company-specific measured WFFs should be stable over time and that the market share losses included in the WFFs should not result in higher wholesale costs.

- TCC submitted that its WFFs for outside plant copper cable facilities are based on a full census of its outside plant copper cable facilities and therefore the utilization of all outside plant facilities is incorporated into the average WFFs for outside plant (by band). Accordingly, there should be no requirement to demonstrate that WFFs for outside plant copper cable facilities have stabilized over time.

14. The Commission considers that if company-specific measured WFFs are to be used, the values should be calculated based on a common definition and a common measurement methodology that are applied consistently across all ILECs. Further, the values should be stable, otherwise they do not represent appropriate estimates of forward-looking WFFs for use in regulatory economic studies.

15. Further, in light of wide discrepancies in past WFF measures, the Commission considers that WFFs should meet an acceptable level of consistency across ILECs in similar circumstances.

16. The Commission considers that the company-specific measured WFFs for outside plant copper cable facilities submitted by Bell Aliant, Bell Canada, and TCC under claim of confidence are unduly low. The Commission notes that a low WFF level reflects a high level of spare capacity for that facility.

17. The Commission considers that a WFF utilization level may not be an appropriate indicator of prospective incremental costs if such utilization level does not trigger the advancement of future relief facilities. In those instances, its use would lead to an overstatement of the associated prospective incremental cost for these facilities. The Commission further considers that an unduly low company-specific measured WFF for a mature facility will not provide an appropriate estimate of the cost of advancement of future relief facilities, and will lead to an overstatement of the associated prospective incremental cost for that facility.

18. The Commission notes that in the proceeding leading to Telecom Decision 2005-6, unduly low company-specific measured WFFs for outside plant fibre facilities were also submitted. In that decision, the Commission disallowed the company-specific measured WFFs and established minimum mandated WFFs for these facilities.

19. In light of the above, the Commission considers that the use of company-specific measured WFFs for outside plant (copper and fibre) cable facilities for regulatory economic study purposes is not appropriate.

20. With respect to non-outside plant cable facilities, the Commission finds that an ILEC is to satisfy the following conditions when it files a company-specific measured WFF of a particular facility for regulatory economic study purposes:

1. the ILEC must satisfy a common definition of the measure,

2. the ILEC must satisfy a common measurement methodology,

3. the ILEC must demonstrate that the company-specific measured WFF has reached stability,

4. the ILEC's company-specific measured WFF must meet an acceptable level of consistency with other ILECs' company-specific WFFs in similar circumstances, and

5. the ILEC's company-specific measured WFF must be approved by the Commission.

Each of these conditions is discussed in further detail below.

Condition 1: The ILEC must satisfy a common definition of the measure

21. The Commission notes that the definitions and formulae submitted by parties are virtually identical. In the Commission's view, it is appropriate to adopt an explicit definition of a WFF across all ILECs.

22. The Commission finds that the company-specific measured WFF should be defined as follows:

$$\frac{\text{Working units}}{\text{Capacity}} * 100\%$$

Where

- Working units are units that are expected to provide service to a customer. This includes all revenue generating units, the units used by the company (i.e. official telephone service). Non-working units are all other remaining units (i.e. spare units, units required for maintenance (i.e. administrative) functions, assigned units that are currently not providing service, and units that are defective or unusable), and

- Capacity is the sum of working and non-working units.

Condition 2: The ILEC must satisfy a common measurement methodology

23. The Commission notes that

- Bell Aliant, Bell Canada, and TCC measure company-specific WFFs generally in a similar manner.

- Bell Canada et al. submitted that WFF measurements are taken at comparable points in each of the ILEC networks.

- Bell Aliant, Bell Canada, and TCC developed WFFs for certain facilities based on a census of all of their own facilities.

24. The Commission notes that most parties agreed that WFFs should be forward-looking and reflect the mix of plant expected to be provisioned in the future (growth technology mix). The Commission considers it appropriate to develop WFF measures for growth technologies rather than the technology mix contained in the embedded plant since the prospective incremental costs included in regulatory economic studies recognize only the forward-looking technology solutions expected to be provisioned in the future.

25. The Commission considers that either a census or a representative sample should be used to develop company-specific measured WFFs. The Commission notes that if such measures are to be used in regulatory economic studies, they should reflect the ILEC's operating territory and a company-average measure.

26. In view of the above, the Commission finds that the company-specific measured WFFs should be measured as follows:

- The measure is to be developed for growth technology only (e.g. for the technology expected to be provisioned in the future);

- The point of measure is to be defined consistently across ILECs for comparable facilities; and

- A company-average over the ILEC's current operating territories should be used (through a census or a representative sample).

27. The Commission further requires ILECs to provide documentation on how the census or the representative sample is developed, explaining why the census or the sample is representative of the company-specific measured WFF for growth technology and is representative of the company-average WFF for a given facility. The response should identify data used in the census or the statistical sample and specify the vintage of data.

Condition 3: The ILEC must demonstrate that the company-specific measured WFF has reached stability

28. The Commission considers that ILECs should demonstrate that the associated facility is in the mature state of its life cycle and has reached its ultimate level of utilization.

29. The Commission finds that at the time of filing company-specific measured WFFs for Commission approval, ILECs are to provide necessary documentation explaining why the measure in question has reached stability.

Condition 4: The ILEC's company-specific measured WFF must meet an acceptable level of consistency with other ILECs' company-specific WFFs in similar circumstances

30. While there may be marked differences between the ILECs as a result of matters such as provisioning practices, geography, and labour costs, the Commission considers it reasonable to expect ILECs to provision a particular facility in an efficient and similar manner (e.g. similar vendors, construction conditions, and networks).

31. The Commission considers it appropriate to disallow excessive levels of spare capacity that significantly exceed those of other ILECs for the same facility. The Commission further considers that a reasonable level of excessive spare capacity would exist where an ILEC's WFF measure would be within minus 20 percent of, or greater than, the average of all ILECs' company-specific WFFs. In addition, the Commission considers that in the event that company-specific WFFs are not filed by all major ILECs for a particular facility, it may disallow company-specific WFFs if they are deemed to contain levels of spare capacity that are excessive and undue.

32. In view of the above, the Commission finds that a company-specific measured WFF will be considered to satisfy the consistency across ILECs condition if the current company-specific WFF measure is within minus 20 percent of, or greater than, the average of all ILECs' company-specific WFFs for the same facility.

Condition 5: The ILEC's company-specific measured WFF must be approved by the Commission

33. ILECs are to obtain Commission approval of company-specific measured WFFs, prior to using them in regulatory economic studies, by following the process identified in section 4-4 of each ILEC's Regulatory Economic Studies Manual.

II. Should the company-specific measured WFFs filed by the ILECs in this proceeding be approved for use in future regulatory economic studies?

34. The Commission notes that its determination as to whether a company-specific measured WFF is to be approved will depend on whether the measure satisfies the conditions set out above for developing company-specific measured WFFs. Further, as noted above, the Commission does not consider it appropriate to use company-specific measured WFFs for outside plant copper cable.

35. The Commission also notes that Bell Aliant proposed company-specific measured WFFs for seven major switching equipment components. The Commission is not in a position to assess whether the proposed WFFs satisfy the relevant conditions set out above until, among other things, it receives other ILECs' company-specific WFFs.[2]

36. The Commission invites each ILEC to provide its proposed company-specific WFFs for Commission approval, in accordance with its determinations and the follow-up process set out in this decision.

III. When should an ILEC be permitted to use company-specific target WFFs?

37. The Commission notes that ILECs can currently use a company-specific target WFF of a facility without Commission approval if it is higher than the Commission-mandated minimum WFF for that facility. Conversely, if the company-specific target WFF is lower than the Commission-mandated minimum WFF, the ILEC is currently required to use the Commission-mandated minimum WFF for that facility for regulatory economic study purposes.

38. MTS Allstream and Primus submitted that company-specific target WFFs are not accurate estimates in that they deviate from actual field experience and focus on less reliable laboratory estimates which do not reflect actual, time-tested utilization levels. The Commission considers that while it may be ideal to rely on WFF measures, it is often impractical to measure all types of facilities given the myriad of telecommunications equipment, the possible measurement difficulties, and the costs of developing WFF measures. Further, the Commission notes that company-specific target WFFs are generally based on manufacturer's recommended values and other provisioning considerations such as provisioning lead times. In the Commission's view, such target WFFs can provide reasonable estimates of WFF values, especially where measures are difficult or too costly to develop.

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[2] MTS Allstream and SaskTel have indicated that they currently do not develop any company-specific measured WFFs.

39. In light of the above, the Commission considers that a company-specific target WFF may be appropriate when a company-specific measured WFF does not meet the prescribed conditions, is not available, or, in the case of outside plant facilities, is disallowed.

40. The Commission notes that parties agreed that if a company-specific target WFF is to be used, it should be developed based on a common definition and, to the extent possible, a common methodology that is applied consistently across all ILECs, and be subject to Commission approval.

41. The Commission finds that the definition of a company-specific target WFF should rely on the same definition as that set out above for a company-specific measured WFF.

42. The Commission considers that the methodologies proposed by Bell Canada and TCC are similar and take into account the manufacturer's recommended utilization levels, manufacturer's lead times, growth trends, and projected exhaust dates. The Commission considers these proposals to be appropriate. However, for certain facilities such as outside plant (copper and fibre) cable, the Commission considers that it may be appropriate to alternatively rely on provisioning/engineering target estimates for the provisioning of future growth facilities.

43. In light of the above, the Commission finds that the company-specific target WFFs must be developed using a methodology based on either the manufacturer's recommended utilization level or other provisioning/engineering utilization level, as adjusted for the manufacturer's and construction lead times, growth trends, projected exhaust dates, and other factors (to be specified by the ILEC). Accordingly, when an ILEC proposes a company-specific target WFF, it should provide the necessary documentation, including the manufacturer's recommended utilization level or provisioning/engineering utilization level and each associated adjustment, with supporting rationale. Further, the Commission considers that if an ILEC proposes company-specific WFF targets for outside plant (copper and fibre) cable facilities, these targets are to be developed by rate band, consistent with current requirements.

44. The Commission also considers that company-specific target WFFs should meet an acceptable level of consistency with other ILECs' company-specific WFFs in similar circumstances, similar to the condition required for company-specific measured WFFs. In addition, the Commission considers that in the event that company-specific WFFs are not filed by all major ILECs for a particular facility, it may disallow company-specific WFFs if they are deemed to contain levels of spare capacity that are excessive and undue.

45. The Commission finds that, in developing the company-specific target WFF, the definition, the acceptable level of consistency with other ILECs' company-specific WFFs in similar circumstances, and the Commission approval process should be the same as those set out above for company-specific measured WFFs.

46. In view of the above, an ILEC must satisfy the following conditions when it files a company-specific target WFF of a particular facility for regulatory economic study purposes:

1. the company-specific measured WFF for that facility does not meet the prescribed conditions, is not available, or is disallowed,

2. the ILEC must satisfy the common definition of the WFF,

3. the ILEC must satisfy the methodology specified in paragraph 43, and

4. the ILEC must provide documentation with necessary justification for the target WFF level, including the manufacturer's recommended utilization level or other provisioning utilization level and each associated adjustment.

47. If the proposed company-specific target WFF is lower than the Commission-mandated minimum WFF, the ILEC must satisfy the following two additional conditions:

1. the ILEC's company-specific target WFF must meet an acceptable level of consistency with other ILECs' company-specific WFFs in similar circumstances (i.e. company-specific target WFF is within minus 20 percent of, or greater than, the average of all ILECs' company-specific WFFs for the same facility), and

2. the ILEC's company-specific target WFF must be approved by the Commission following the approval process identified in section 4-4 of each ILEC's Regulatory Economic Studies Manual.

48. The Commission considers that if the proposed company-specific target WFF is higher than the Commission-mandated minimum WFF, this proposed target WFF will only be subject to a Commission staff review process for reasonableness.

IV. Should the company-specific target WFFs filed by the ILECs in this proceeding be approved for use in future regulatory economic studies?

49. Bell Canada has proposed company-specific target WFFs for access remotes, cross connects (umbilical and trunking), switching equipment, and optical transmission equipment. The Commission considers that Bell Canada has not satisfied some of the conditions set out in this decision to justify the use of such target WFFs. Accordingly, Bell Canada is invited to submit its proposed target levels in accordance with the determinations made in this decision. Furthermore, for the proposed company-specific target WFFs that are lower than the Commission-mandated WFFs, the Commission is not in a position to assess whether the proposed WFFs satisfy the relevant conditions set out above until, among other things, it receives other ILECs' company-specific WFFs.

50. The Commission also invites Bell Aliant, MTS Allstream, SaskTel, and TCC to provide their company-specific target WFFs, in accordance with its determinations and the follow-up process set out in this decision.

V. When should an ILEC be permitted to use company-specific proxy WFFs?

51. The Commission agrees with Bell Canada et al. that it may be appropriate to use company-specific proxy WFFs (i.e. company-specific measured or target WFFs of comparable technology) to estimate the WFF of a new facility or technology. In the Commission's view, a company-specific proxy WFF is appropriate to determine costs in regulatory economic studies for a new facility or technology that has not yet been provisioned in the ILEC's network. If a proxy WFF is used, documentation is to be provided at the time of filing the regulatory economic study to justify the use of the proxy and to also describe any adjustments that are required for the proxy to be an appropriate estimate for the new facility or technology.

VI. Should the company-specific WFFs be used to determine the ILECs' TSR?

52. The Commission notes that the national contribution collection mechanism was introduced in Decision 2000-745. In accordance with Decision 2000-745, each ILEC calculates its TSR associated with the provisioning of residential PES in each high-cost serving area (HCSA). In that decision, the Commission concluded that the TSR, based on the prospective incremental cost of residential PES, would provide the appropriate incentives for the efficient provision of service and competitive entry in HCSAs. The prospective incremental costs of residential PES determined for TSR purposes were established based on the Commission-mandated WFFs set out in Decision 2001-238.

53. The Commission notes that it is disallowing the use of company-specific measured WFFs for outside plant cable facilities as it would not provide appropriate estimates of the prospective incremental costs.

54. The Commission considers that the mandated WFFs set out in Decision 2001-238 continue to provide the appropriate incentives for efficient provision of service and competitive entry in HCSAs.

55. In light of the above, the Commission considers that it would be inappropriate to vary its determinations with respect to the Commission-mandated WFFs set out in Decision 2001-238. Accordingly, the Commission finds that each ILEC's TSR calculation should continue to rely on the Commission-mandated WFFs for outside plant copper cable facilities set out in Decision 2001-238.

VII. When should the Commission-mandated WFFs be used?

56. The Commission agrees with MTS Allstream, Primus, and RCI that Commission-mandated WFFs continue to be appropriate for use in regulatory economic studies when company-specific measured or target WFFs do not meet the prescribed conditions, are not available, or have been disallowed.

VIII. Should the recovery of past introduction costs of a mandated wholesale service that have not been fully recovered be allowed? If so, what is the appropriate methodology to estimate these costs and to include them in an updated regulatory economic study of a mandated wholesale service?

57. The ILECs argued that when a regulatory economic study of a mandated wholesale service requires updating before the end of the original study period, the unrecovered introduction costs associated with the original regulatory economic study should be allowed to be recovered in the updated regulatory economic study. No party opposed such recovery. The Commission agrees that it is fair and reasonable to allow the recovery of any such unrecovered introduction costs.

58. In a case where there are over-recovered introduction costs at the time of an updated regulatory economic study, Bell Canada et al. and Primus proposed that any such costs should be taken into consideration as part of the update. Conversely, MTS Allstream proposed that any over-recovered introduction costs should be excluded from the update.

59. The Commission considers that similar to unrecovered introduction costs, any over-recovered introduction costs of a mandated wholesale service should be included in the updated regulatory economic study to ensure that the revised rates are just and reasonable. Further, any over-recovered costs should be estimated using the same methodology used to estimate and recover the amount of unrecovered introduction costs.

60. Accordingly, the Commission finds that

- when an update of a regulatory economic study associated with a mandated wholesale service is required before the end of the original regulatory economic study period, ILECs are permitted to recover any unrecovered introduction costs or include any over-recovered introduction costs in the update;

- the methodology for estimating over-recovered introduction costs should be the same as the methodology used to estimate unrecovered introduction costs; and

- at the time of filing the updated regulatory economic study, ILECs are to provide a separate analysis of unrecovered or over-recovered introduction costs that are included in the updated study, along with the supporting costing methodology and assumptions consistent with the methodology determinations set out in this decision.

61. The Commission notes that the ILECs proposed similar methodologies to estimate the unrecovered introduction costs and to include them in the updated regulatory economic study.

62. The Commission considers that the unrecovered or over-recovered introduction costs should be determined based on the yearly demand forecasts since tariffed rates for mandated wholesale services are generally established on a per-demand unit basis. Further, the Commission considers that actual tracked introduction costs and demand should be used as

this would result in a more accurate determination of unrecovered or over-recovered introduction costs. However, if actual tracked introduction costs are not available, the ILECs should be allowed to use the estimated introduction costs used in the original regulatory economic study.

63. Based on the above, the Commission finds that the unrecovered or over-recovered portion of the introduction costs for inclusion in the updated regulatory economic study should be calculated according to the methodology prescribed in Appendix 1 to this decision.

IX. Are the determinations in this decision consistent with the Policy Direction?

64. Parties generally supported their positions by references, as appropriate, to applicable provisions of the Policy Direction.

65. With respect to subparagraph 1(*a*)(i) of the Policy Direction, the Commission considers that market forces cannot be relied on to (1) establish just and reasonable rates for the services to which the methodologies that are the subject of this proceeding apply, and (2) achieve the telecommunications policy objectives set out in paragraphs 7(*b*), (*c*), and (*f*) of the *Telecommunications Act* (the Act).[3]

66. With respect to subparagraph 1(*a*)(ii) of the Policy Direction, the Commission considers that the determinations in this decision reflect measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the telecommunications policy objectives referenced above. The Commission notes that this decision allows the ILECs to use company-specific WFFs instead of Commission-mandated WFFs in regulatory economic studies. The Commission further notes that the purpose of the conditions set out in this decision is to ensure that the costs estimated in regulatory economic studies, based on company-specific WFFs, reflect prospective incremental costs in accordance with the Commission-approved prospective incremental costing methodologies, and can be relied upon to establish just and reasonable rates for the relevant services. Further, the Commission considers that its determinations will contribute to a streamlined regulatory economic study process resulting in tariff approval mechanisms that are as minimally intrusive and as minimally onerous as possible, consistent with subparagraph 1(*c*)(i) of the Policy Direction.

67. The Commission considers that the determinations in this decision will lead to the estimation of causal costs that will support the setting of prices that will neither deter economically competitive efficient entry nor promote economically inefficient entry consistent with the criteria set out in subparagraph 1(*b*)(ii) of the Policy Direction.

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[3] The cited objectives of the Act are
7(*b*) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;
7(*c*) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications; and
7(*f*) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective.

Follow-up process

68. Each ILEC is to file the material required pursuant to this decision by **11 September 2009**, serving a copy on the parties to this proceeding. Further, in its submission, each ILEC is to propose the WFFs that it intends to use in regulatory economic studies, by facility, broken down into the following categories: (a) company-specific measured WFFs, (b) company-specific target WFFs, and (c) Commission-mandated WFFs. Parties may file comments, serving a copy on the relevant ILECs, by **13 October 2009**. ILECs may file replies, serving a copy on the party that submitted comments, by **23 October 2009**.

69. Télébec, Limited Partnership is directed, by **13 July 2009**, to show cause why the determinations in this decision should not apply to it.

70. In accordance with the update process in section 4-4 of the ILECs' Regulatory Economic Studies Manuals, Commission staff will coordinate the necessary updates to the ILECs' Regulatory Economic Studies Manuals to reflect the determinations made in this decision.

71. Where material is to be filed by a certain date, the material must be actually received, and not merely sent, by that date.

Related documents

- *Review of the price floor test and certain wholesale costing methodologies*, Telecom Regulatory Policy CRTC 2009-80, 19 February 2009

- *Review of regulatory requirements pertaining to the imputation test for retail services and to costing methodologies for wholesale services,* Telecom Public Notice CRTC 2008-5, 5 June 2008

- *Competitor Digital Network Services*, Telecom Decision CRTC 2005-6, 3 February 2005, as amended by Telecom Decision CRTC 2005-6-1, 28 April 2006

- *Restructured bands, revised loop rates and related issues,* Decision CRTC 2001-238, 27 April 2001, as amended by Decision CRTC 2001-238-1, 28 May 2001 and Decision CRTC 2001-238-2, 7 August 2001

- *Changes to the contribution regime*, Decision CRTC 2000-745, 30 November 2000

Calculation of the unrecovered portion of the introduction costs of a mandated wholesale service for inclusion in the updated regulatory economic study

Step 1: Determine the amount of introduction costs that have been recovered as follows:

- Calculate the unitized introduction costs by dividing the present worth of annual costs (PWAC) of introduction costs forecast by the present worth (PW) of the demand forecast as follows:

  $$\text{Unitized introduction costs} = \text{PWAC}_{\text{introduction costs forecast}} / \text{PW}_{\text{demand forecast}}$$

  Where

  - $\text{PWAC}_{\text{introduction costs forecast}}$ = PWAC of introduction costs forecast calculated from the information in the original regulatory economic study. If the introduction costs forecast are capital in nature, PWAC should be based on the related regulatory capital parameters of the original regulatory economic study.

  - $\text{PW}_{\text{demand forecast}}$ = PW of the demand forecast obtained from the original regulatory economic study.

- Calculate the PWAC of recovered introduction costs by multiplying unitized introduction costs by the PW of tracked demand as follows:

  $$\text{PWAC}_{\text{recovered introduction costs}} = \text{Unitized introduction costs} * \text{PW}_{\text{tracked demand}}$$

  Where

  - $\text{PW}_{\text{tracked demand}}$ = PW of tracked demand over the elapsed time (i.e. the number of years between the original and updated regulatory economic studies). If tracked demand is not available over the elapsed years, the demand from the original regulatory economic study should be used.

Step 2: Calculate the amount of unrecovered introduction costs as follows:

- Calculate the PWAC of unrecovered introduction costs by subtracting the PWAC of recovered introduction costs from the PWAC of tracked introduction costs as follows:

  PWAC of unrecovered introduction costs =

  $$\text{PWAC}_{\text{tracked introduction costs}} - \text{PWAC}_{\text{recovered introduction costs}}$$

Where

- PWAC $_{\text{tracked introduction costs}}$ = PWAC of the tracked introduction costs over the elapsed years. If tracked introduction costs are not available over the elapsed years, the introduction costs from the original regulatory economic study should be used.

Step 3: Include the unrecovered introduction costs in the updated regulatory economic study as follows:

- Calculate the unitized unrecovered introduction costs by dividing the unrecovered introduction costs by the PW of new demand forecast estimated for use in the updated regulatory economic study as follows:

  Unitized unrecovered introduction costs =

  $$\text{PWAC of unrecovered introduction costs/PW}_{\text{new demand forecast}}$$

  Where

  - PW $_{\text{new demand forecast}}$ = PW of the new demand forecast estimated for use in the updated regulatory economic study.

- Add the unitized unrecovered introduction costs to the unitized costs from the updated regulatory economic study and report separately the PWAC and unitized unrecovered introduction costs in the study report.