# Telecom Decision CRTC 2006-77

Ottawa, 21 December 2006

## Cogeco, Rogers, Shaw, and Videotron – Third-party Internet access service rates

Reference: 8740-C6-200606436, 8740-R31-200600280, 8740-S9-200600636, 8740-V3-200606444, 8638-C12-200405755

*In this Decision, the Commission renders its determinations in the follow-up to* IMCAIP against certain incumbent cable and telephone carriers – Provision of higher-speed access and retail Internet services including Lite service, *Telecom Decision CRTC 2004-28, 5 May 2004*.

*The Commission approves with modifications, proposed rates for third-party Internet access (TPIA) service effective the date of this Decision for Cogeco Cable Canada Inc., Rogers Communications Inc., and Quebecor Media Inc. on behalf of its wholly-owned subsidiary Videotron Ltd. and effective 20 March 2006 for Shaw Cablesystems G.P., and directs these cable carriers to issue revised tariffs within 30 days of the date of this Decision, providing a copy to the Commission, that reflect the determinations in this Decision.*

*The Commission further approves on a final basis, effective the date of this Decision, the interim rates for TPIA point of interconnection and service charges as set out in* Point of interconnection and service charge rates, terms and conditions for third party Internet access using cable networks, *Telecom Decision CRTC 2004-69, 2 November 2004, as amended by Telecom Decision CRTC 2004-69-1 dated 24 November 2004 and Telecom Decision CRTC 2004-69-2 dated 3 February 2005. The Commission notes that, in finalizing the tariffs under review in this proceeding, it considered the importance of providing comparable TPIA services across cable carriers' operating regions.*

### Introduction

1. In this Decision, the Commission considers tariff notice applications filed by Cogeco Cable Canada Inc. (Cogeco), Shaw Cablesystems G.P. (Shaw), and Quebecor Media Inc. on behalf of its wholly-owned subsidiary Videotron Ltd. (Videotron), for proposed third-party Internet access (TPIA) service rates, supported by 2006 economic evaluations (cost studies). The Commission also considers proposed TPIA rates for Rogers Communications Inc. (RCI) submitted as part of RCI's 2006 cost studies.

2. The TPIA services of Cogeco, RCI, Shaw, and Videotron (collectively, the cable carriers) allow Internet service providers (ISPs) to provide Internet access connectivity to their end-users for the purposes of providing retail Internet services and voice over Internet Protocol (VoIP).

3. In addition, pursuant to *Point of interconnection and service charge rates, terms and conditions for third party Internet access using cable networks*, Telecom Decision CRTC 2004-69, 2 November 2004, as amended by Telecom Decision CRTC 2004-69-1 dated 24 November 2004

and Telecom Decision CRTC 2004-69-2 dated 3 February 2005 (Decision 2004-69), the Commission considers the mark-up for TPIA monthly service rates, point of interconnection (POI) rates for the interconnection of ISPs at cable network POI locations, and service charges for the connection of ISPs and ISP customers to cable networks.

## Background

4. In *Terms and rates approved for large cable carriers' higher speed access servic*e, Order CRTC 2000-789, 21 August 2000, as amended by Order CRTC 2000-789-1 dated 31 January 2001 (Order 2000-789), the Commission stated that, consistent with its direction to cable carriers in *Regulation under the Telecommunications Act of cable carriers' access services*, Telecom Decision CRTC 99-8, 6 July 1999 (Decision 99-8), rates for the cable carriers' access services should be based on the appropriate incremental Phase II costs of the service plus an appropriate mark-up.

5. In Order 2000-789, the Commission also set out, for each cable carrier, namely, Cogeco, RCI, Shaw, and Videotron, a flat monthly per-end-user TPIA rate that reflected a number of costing adjustments to the carriers' proposed access services costs plus an appropriate mark-up.

6. In *IMCAIP against certain incumbent cable and telephone carriers – Provision of higher-speed access and retail Internet services including Lite service*, Telecom Decision CRTC 2004-28, 5 May 2004 (Decision 2004-28), the Commission made certain determinations regarding TPIA. The Commission directed Cogeco, RCI, Shaw, and Videotron to file updated cost studies based on the Commission's Phase II incremental costing approach for these access services which related to the per-end-user TPIA rates approved by the Commission in Order 2000-789. The Commission further directed Cogeco, RCI, Shaw, and Videotron to provide their respective views, along with justification, on the appropriate mark-up level to be used to establish the per-end-user rates for TPIA.

7. On 19 August 2004, pursuant to the Commission's directives in Decision 2004-28, Cogeco, RCI, Shaw, and Videotron provided economic evaluations (2004 cost studies) for their respective TPIA services, based on the Commission's Phase II costing approach for these services, as set out in Order 2000-789. On the same date, pursuant to Decision 2004-28, the Canadian Cable Telecommunications Association (CCTA)[1] on behalf of Cogeco, RCI, and Shaw, filed its views on the appropriate mark-up to be used to establish the per-end-user access rates for TPIA.

8. On 20 August and 3 December 2004, Xit Telecom Inc.[2] (Xittel), supported by Primus Telecommunications Canada Inc. (Primus), requested that the Commission set out a process to allow interested parties to comment on the cable carriers' assessments of the appropriate mark-ups to be used for their TPIA services.

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[1] The Commission notes that the CCTA ceased to operate in February 2006.

[2] Xit Telecom Inc. submitted comments dated 30 August and 13 September 2006 under the name Télécommunications Xittel inc.

9. Comments were filed by Xittel on 20 August 2004, by Primus on 27 August 2004, and by Cybersurf Corp. (Cybersurf) on 20 September 2004, regarding the submissions filed by the CCTA, Cogeco, RCI, and Shaw pursuant to the directives in Decision 2004-28. On 6 October 2004, on behalf of Cogeco, RCI, and Shaw, the CCTA filed reply comments.

10. In Decision 2004-69, the Commission approved TPIA interconnection and service charge rates on an interim basis pending the determination in the proceeding initiated by Decision 2004-28 to examine the appropriate mark-up for TPIA services and facilities provided by cable carriers. The Commission also directed Cogeco, RCI, Shaw, and Videotron to file, in the proceeding initiated by Decision 2004-28, supplementary justification to support the level of mark-up over costs appropriate for TPIA interconnection and service charge rates.

11. On 20 January 2006, the Commission received Shaw's application for final TPIA rates, filed under Tariff Notice 8 (Shaw TN 8), supported by its 2006 cost study.

12. On 27 January 2006, Cybersurf requested that, pending the disposition of Shaw's TN 8 application and other proposed changes to TPIA rates associated with other Commission proceedings, the Commission direct Shaw, on an expedited basis, to provide the full range of functionality of its retail Internet service for all service levels/speeds at its current end-user rate of $21.25.

13. On 20 February 2006, Cybersurf filed additional comments, requesting that the Commission reduce Shaw's proposed TPIA per-end-user rates for its Lite, High-Speed and Xtreme TPIA services.

14. On 2 and 20 February 2006, the Quebec Coalition of Internet Service Providers (QCISP) identified a number of deficiencies that it perceived with respect to Shaw's 2006 cost study filed in support of Shaw TN 8. The QCISP requested that the Commission require the disclosure of certain costing information that Shaw had filed in confidence, and allow the QCISP to address interrogatories once such information was placed on the public record.

15. On 2 March 2006, Vianet Internet Solutions (Vianet) requested that the Commission order Shaw to reduce its proposed end-user access rates by 40 to 50 percent to coincide with rates charged by Persona Communications Corp. operating in Northern Ontario, adjacent to Shaw's territory.

16. In reply comments dated 3 March 2006, Shaw submitted that to apply the currently approved TPIA per-end-user rate of one service level/speed (high-speed) to all other service levels/speeds proposed in Shaw TN 8 would be arbitrary and inappropriate. Shaw further submitted that such an act would not recognize the differences in costs between the service levels/speeds, and would result in competitors receiving artificially low, subsidized service offerings for those service levels/speeds that were above the then-current rate. Shaw further submitted that there was no policy rationale for artificially sustaining competitors through the provision of inappropriately low TPIA transport rates.

17. Shaw also submitted that the Commission should convene a proceeding to determine whether the test for forbearance set out in section 34 of the *Telecommunications Act* (the Act) was now satisfied in the high-speed Internet (HSI) access market.

18. In *Shaw Cablesystems G.P.*, *Third Party Internet Access service*, Telecom Order CRTC 2006-55, 20 March 2006 (Order 2006-55), the Commission noted that it had not yet verified the cost study evidence filed by Shaw and that competitors had not yet had an opportunity to comment on that evidence. The Commission considered, however, that due to demand for Shaw's TPIA services, it would be appropriate to approve TPIA end-user rates on an interim basis for TPIA Lite, Regular and Xtreme speeds. With respect to Shaw's proposal that the Commission should convene a proceeding to determine whether the test for forbearance under section 34 of the Act was now satisfied in the HSI access market, the Commission noted that Shaw's proposal was beyond the scope of Shaw's TN 8 application.

19. In Order 2006-55, the Commission also considered that the TPIA end-user rate of $21.25 should not apply to Shaw's proposed TPIA Lite and TPIA Xtreme services. The Commission noted that Shaw had proposed significantly different costs for these three services and that Shaw's costing evidence, filed in confidence with the Commission, showed that TPIA transport costs increased significantly as TPIA transport service speeds increased. The Commission noted that, while Shaw's cost evidence had not been tested, Shaw's TPIA service was provided over a shared network. The Commission considered it reasonable to assume, on a *prima facie* basis, that costs would vary with the service speed.

20. By letter dated 31 March 2006, QCISP's request for disclosure of TPIA service cost information was denied since the granting of QCISP's request would cause specific direct harm to Shaw, outweighing the public interest in disclosure. In order to reach a timely determination, it was decided that interrogatories would be addressed to the cable carriers on behalf of QCISP and other parties, to obtain the required costing information on TPIA services.

### Applications

21. As noted above, the Commission received an application dated 20 January 2006 by Shaw, under Shaw TN 8, to revise rates for its three TPIA services, namely Lite, High-Speed and Xtreme.

22. The Commission also received applications by Cogeco and Videotron, under Tariff Notices 20 (Cogeco TN 20) and 14 (Videotron TN 14), respectively, dated 24 May 2006. Cogeco proposed to introduce rates for two TPIA service speeds corresponding to its retail HSI services currently offered as Lite and Pro service, and to revise the TPIA service speed that corresponds to its Standard HSI service.

23. Videotron proposed to introduce monthly rates for its TPIA Basic Internet Service (sometimes referred to as "lite" Internet service) and Extreme HSI Service, and to revise the monthly rate for its TPIA High-Speed Service.

24. RCI submitted a cost study dated 24 May 2006, in support of the introduction of two proposed rates for TPIA services, namely TPIA Lite and TPIA Extreme, and a proposed revision to the rate for its TPIA Express service.

## Process

25. By letter dated 31 March 2006, the Commission initiated a proceeding to consider the existing and potential TPIA services of Cogeco, RCI, Shaw, and Videotron with respect to the per-end-user access rates, terms, and conditions by service speeds, including the volume charges, the supporting costing methodologies and assumptions, and the level of mark-ups.

26. The Commission addressed interrogatories to the cable carriers on 7 April 2006. On 24 May 2006, Cogeco, RCI, Shaw, and Videotron filed responses to the interrogatories, including updated cost studies in support of their TPIA end-user service rates.

27. On 9 June 2006, the Commission addressed a second round of interrogatories to Cogeco, RCI, Shaw, and Videotron. On 14 August 2006, Cogeco, RCI, Shaw, and Videotron filed their responses to those interrogatories. As part of these interrogatory responses, RCI, Shaw, and Videotron filed revisions to correct errors or omissions in the May 2006 cost studies.

28. Comments were filed by Cybersurf, Primus, RCI, Shaw, and Xittel on 30 August 2006. Reply comments were filed by Cybersurf, Cogeco, Primus, RCI, Shaw, Videotron, and Xittel on 13 September 2006.

29. The issues considered in this proceeding are discussed below in the following sections:

Section A – Shaw's request to suspend the TPIA proceeding

Section B – Costing for TPIA end-user services

Section C – Rate issues

Section D – Proposals for changes to the TPIA service

## A – Shaw's request to suspend the TPIA proceeding

30. Shaw requested that, in view of the proposed policy directive to the Commission tabled by the Minister of Industry in Parliament on 13 June 2006 (the proposed policy directive) and its potential impact on the regulation of wholesale services, the Commission suspend this proceeding to finalize the cable carriers' proposed TPIA rates. Shaw submitted further that market forces were sufficiently robust to replace regulation as a means of safeguarding the interests of users of the TPIA service.

31. Cybersurf and Primus opposed Shaw's request to suspend the proceeding. Cybersurf submitted that the proposed policy directive had not yet been enacted and might change during the review process. Cybersurf submitted further that competitors required rate stability to have the incentive to invest and to continue competing. Cybersurf also submitted that it had experienced significant financial uncertainty during the period since Decision 2004-28 was issued.

**Commission's analysis and determinations**

32. The Commission notes that current TPIA interconnection and service charge rates were approved on an interim basis in Decision 2004-69 and that Shaw's TPIA per-end-user rates are also currently approved on an interim basis. The Commission notes that in *Review of regulatory framework for wholesale service and definition of essential service*, Telecom Public Notice CRTC 2006-14, 9 November 2006 (Public Notice 2006-14), it initiated a review of its current approach to the regulation of wholesale services and that, for the reasons set out in that Public Notice, it expects to issue a decision on issues in that proceeding by mid-2008. In view of this and having regard to the period of time during which the TPIA service issues under consideration in this Decision have been outstanding, the Commission considers that to dispose of the issues under consideration in this proceeding on a final basis would provide regulatory certainty. The Commission therefore denies Shaw's request to suspend this proceeding.

33. The Commission notes that, as with other services provided to other competitors by ILECs, cable carriers and competitive local exchange carriers at regulated rates, the regulatory status of competitor TPIA services approved in this Decision is within the scope of the proceeding begun in Public Notice 2006-14.

## B – Costing for TPIA end-user services

34. The Commission notes that each cable carrier filed cost studies associated with each of their three proposed TPIA speed offerings. The Commission also notes that the cost issues, and the associated Commission determinations identified below, apply to each of the TPIA speeds proposed by each cable carrier. The Commission further notes that, during the course of this proceeding, RCI, Shaw, and Videotron filed cost study updates in response to the 9 June 2006 Commission interrogatories. The Commission therefore considers it appropriate to rely on the 24 May 2006 TPIA cost studies as updated by the cable carriers on 14 August 2006 in response to the 9 June 2006 Commission interrogatories.

### 1) General costing issues

***a) Blended all-carrier and TPIA cost approach***

**Positions of parties**

35. Cybersurf submitted that, in their cost studies, the cable carriers had not rigorously applied Phase II costing principles and methodology in the definition of their reference plans and had included a number of costs in their studies which were not causal prospective incremental costs.

36. Cybersurf referred to the Commission's determination in Order 2000-789, that the all-carrier cost components in the cable company cost studies were only approved on the basis that the costs reflected costs causal to the access service. Cybersurf submitted that the costs in question needed to be Phase II prospective incremental costs and that any costs that did not qualify under that definition should not be included either on a stand-alone TPIA-basis or using an all-carrier approach.

37. Cogeco, RCI, and Shaw submitted that they had followed the same Phase II costing principles in this proceeding as in the proceeding leading to Order 2000-789. Cogeco also submitted that its revised 2006 cost studies were an update of its 1999 cost studies and were consistent with the Phase II costing approach used by the Commission in Order 2000-789. Shaw further submitted that Cybersurf criticized the use of the all-carrier demand approach, but failed to substantiate why the use of the all-carrier demand approach was inappropriate where the facility was used by both retail and wholesale end-users.

38. Shaw submitted that its costing approach blended costs based on an all-carrier cost component, using all-carrier demand based on Shaw retail Internet and TPIA demand, and a per-end-user TPIA-specific cost using TPIA demand.

39. Videotron submitted that Cybersurf erred in assuming that, by adopting an all-carrier approach to the costing of Internet access service, the cable carriers had contravened the principle of incremental costing. Videotron submitted that the Commission's Phase II costing methodology was incremental in nature and hence, by definition, required the identification of a reference plan against which incremental changes could be assessed.

**Commission's analysis and determination**

40. The Commission notes that, in Order 2000-789, it determined that the cable carriers' proposal to blend all-carrier and TPIA-specific cost components in their cost studies was appropriate. The Commission notes that the all-carrier costs included in the TPIA cost studies relate to the shared network facility and equipment costs and other operating expenses that are causal and incremental to an additional unit of demand, irrespective of whether the demand is cable carrier-specific or TPIA-specific.

41. In light of the above, the Commission concludes that, with the exception of changes to methodology identified in this Decision, the cable carriers have appropriately applied the Phase II costing principles and methodology in their proposed TPIA cost studies, consistent with those set out in Order 2000-789.

***b) Benchmarking***

**Positions of parties**

42. Cybersurf requested that the Commission undertake a comparative analysis of the data filed by the cable carriers in confidence in order to assess the extent to which it was based on consistent and reasonable industry benchmarks.

43. RCI replied that, in Order 2000-789, the Commission rejected the notion of relying on benchmarks and entrant viability as the basis for setting rates.

44. RCI submitted, nevertheless, that the Gateway Access Service (GAS) per-end-user rates that were approved by the Commission at the request of Bell Canada and the ISP industry were a high-level indication that the costs and associated rates submitted by RCI were reasonable.

**Commission's analysis and determination**

45. The Commission notes that, consistent with past practice, in this Decision it takes into account the appropriate comparisons across services and cable carriers of the detailed cost inputs, unit costs and assumptions in its analysis and determinations with respect to the proposed TPIA cost estimates. In this regard, the Commission notes that, where appropriate, it has made adjustments to certain costs as a result of detailed cost comparisons where costing issues had not been raised in parties' comments.

***c) Plant service lives***

46. Life estimates represent the duration over which plant, property or equipment is expected to provide service in an economic study. Accounting life estimates are important costs elements as they determine the period over which a pool of related capital expenditures are amortized for accounting purposes. Economic life estimates may differ from their corresponding accounting life estimates as they relate to a specific asset rather than a pool of assets. The Commission notes that there is a common conceptual basis in economic lives and accounting lives in that they both reflect estimates of assets' physical lives, along with adjustments to reflect the impact of obsolescence and technology substitution.

**Commission's analysis and determinations**

47. The Commission notes that in this proceeding, in response to interrogatories, Cogeco, RCI, Shaw, and Videotron indicated that they used economic lives in their respective cost studies. Cogeco and RCI indicated that their economic lives generally were the same as their accounting lives. The Commission considers it appropriate, in general, to use the economic life estimate of an asset equal to that asset's accounting life and concludes that the life estimates proposed by Cogeco and RCI are appropriate.

48. The Commission also notes that in response to an interrogatory, Shaw was of the view that it was more appropriate to use economic lives in its cost study because accounting lives did not reflect the useful life of the equipment items. Shaw submitted that the economic lives it used were consistent with the lives used in the initial cost studies submitted by RCI and Cogeco in the proceeding leading to Order 2000-789. Shaw indicated that for internal accounting purposes, it had historically included much of its equipment in one asset pool that was depreciated over 10 years. Shaw submitted that since assets were pooled, the composite accounting life was not a useful proxy for the economic life of the study assets. The Commission considers that Shaw's composite accounting life is not a useful proxy for the economic life of the assets included in the study. The Commission notes that the economic life estimates proposed by Shaw are generally comparable to the accounting life estimates proposed by Cogeco and RCI and concludes that the economic life estimates proposed by Shaw are appropriate.

49. The Commission notes that Videotron has used economic life estimates for amplifiers/receptors and clear path assets that are significantly shorter than their corresponding accounting life estimates and those proposed by RCI and Shaw for similar assets. The Commission notes that these assets are available from a number of suppliers and considers that the service lives for

these assets would be comparable across cable carriers. The Commission therefore considers it appropriate to revise Videotron's proposed life estimates to reflect those proposed by RCI and Shaw for comparable assets. Under these changes the economic life for Videotron's amplifiers/receptors and clear path assets are closer to Videotron's life estimates. Accordingly, the Commission adjusts Videotron's proposed TPIA service costs to reflect these plant service life changes.

***d) Use of current unit costs***

**Positions of parties**

50. Cybersurf noted that the cost studies for Shaw and Videotron began in 2004 rather than 2006 as in the case of RCI and Cogeco. Cybersurf submitted that, based on its analysis, Videotron for the most part had made the necessary adjustments to update its unit costs to 2005 and 2006 vintage data in its cost study but that Videotron's project and system costs appeared to be based on 2000 vintage data. Cybersurf further submitted that many of the capital unit costs used in the Shaw cost study were of 2004 or earlier vintage which likely overstated the unit costs of items such as routers, servers, and cable modem termination system (CMTS) equipment. In light of this, Cybersurf requested that the Commission make the necessary adjustments to reflect 2006 unit cost data.

51. Shaw replied that it had provided an update to its 2004 cost study in January 2006 that included both prospective productivity factors and cost increase factors resulting in unit cost estimates that were appropriately adjusted. Further, Shaw submitted that it had received no indication during this proceeding that its study period commencing in 2004 should be updated to 2006. Shaw added that any update to the cost study would require updating the TPIA end-user demand since the level of TPIA demand included in its study was significantly higher than the actual number of TPIA end-users on its network.

52. With respect to its project and system costs, Videotron replied that these costs were based on 2004 vintage data, adjusted to 2006 experience.

**Commission's analysis and determinations**

53. The Commission considers that the cost studies for RCI, Cogeco, and Videotron appropriately reflect current 2006 costs. Accordingly, the Commission finds that no further updates are required for these cable carriers.

54. With respect to Shaw's cost studies, the Commission considers that the cost study should be updated to reflect current 2006 costs by applying the appropriate inflation and productivity factors to the 2004 unit costs. Accordingly, the Commission adjusts Shaw's costs by applying the appropriate factors.

*e) Additional productivity factor*

**Positions of parties**

55. Cybersurf submitted that, in Order 2000-789, the Commission applied an additional 15 percent productivity offset to each cable carrier's overall access service costs over a 10-year study period to recognize additional cost efficiencies.

56. Cybersurf submitted that RCI, Shaw, and Videotron had not used the 15 percent productivity factor in their respective cost studies while it was not clear as to whether Cogeco had applied this factor in its cost study. Cybersurf also noted RCI's claim that its productivity offset was consistent with the offset applied to the ILECs under the current price cap regime.

57. Cybersurf submitted that the cost of equipment employed in the provision of TPIA had fallen dramatically during the past decade and was expected to continue to do so. Cybersurf also submitted that the 10-year study period in the cable carriers' cost studies was much longer than the price cap period applicable to the ILECs. Cybersurf further submitted that, under these circumstances, the application of an additional productivity offset of at least 15 percent over the study period continued to be appropriate.

58. In reply, Cogeco and RCI submitted that they used an annual productivity factor of 3.5 percent in their cost studies. Cogeco submitted that this implied the application of an additional productivity offset of around 15 percent. Cogeco further submitted that the productivity factor was consistent with Order 2000-789 since this productivity factor had the effect of offsetting not only the inflation factor but also reducing the overall access service costs. In addition, similar to RCI, Cogeco submitted that its productivity factor was consistent with the productivity offset applied to ILECs under the price cap regime.

59. RCI submitted that there was no justification for an arbitrary adjustment of 15 percent to recognize additional cost efficiencies. RCI submitted that its revised study used current costs in month one and then included an explicit productivity factor of 3.5 percent per annum applied to capital and operating costs.

60. RCI also submitted that the majority of TPIA service costs were labour-related and consequently, were subject to salary increases which were less amenable to technological improvements.

61. Regarding Cybersurf's argument that the life of the TPIA studies was longer than the life of the price cap period, RCI and Shaw submitted that the productivity assumption was applied on an annual basis in both cases, rendering the different duration periods irrelevant.

62. Shaw replied that there was no basis for applying an additional productivity factor over the productivity factor already explicitly included in the cost study. Shaw submitted that the unit costs included in the cost study already reflected any cost changes that had occurred over time as the costs were updated since the original TPIA cost study was filed in 1999. Shaw also submitted that an annual productivity improvement factor in excess of the cost increase factor had been applied to all capital items throughout the 10-year study period, ensuring that capital unit costs were being reduced year-over-year throughout the study period.

63. Videotron submitted that it included productivity offsets in its cost study for each category of equipment based on Videotron's real world experience. In Videotron's view, this was more reliable than an imposition of an arbitrary 15 percent offset.

**Commission's analysis and determinations**

64. The Commission notes that the cable carriers have applied annual productivity factors in their TPIA cost studies. The Commission considers that the use of annual productivity factors reflects the ongoing productivity improvements that the carriers expect to realize in provisioning a service over time and is consistent with Phase II costing principles. In light of the above, the Commission considers that the inclusion of an additional 15 percent productivity factor in the cable carriers' cost studies would not be appropriate.

65. The Commission notes, however, that only RCI has applied the productivity factors to both capital and operating expenses whereas all other cable carriers have applied the productivity factors to capital but not consistently to expenses in their respective TPIA cost studies. The Commission considers that RCI has correctly applied the productivity factors to both capital and operating expenses and that the end-user TPIA costs of all other cable carriers should be revised to reflect productivity in both capital and operating expenses. Accordingly, the Commission applies the appropriate productivity factors, where applicable, to the operating expenses for Cogeco, Shaw, and Videotron.

***f) Traffic growth rate***

**Commission's analysis and determinations**

66. The Commission notes that the cable carriers' proposed TPIA cost studies contain several traffic-driven cost components for which the cost estimates were developed based on assumed traffic levels. The Commission also notes that in response to interrogatories, the cable carriers submitted that these traffic levels were forecast based on historical data, trends, consumer demand, consumer behaviour, and the company's best estimate of future traffic requirements.

67. The Commission generally concurs with the approach taken by the cable carriers in estimating the traffic levels associated with the in-service demand at the beginning of their TPIA cost studies.

68. With respect to the traffic levels that were forecast over the study period, the Commission notes that Cogeco, Shaw, and Videotron assumed a traffic growth rate that was constant across all years of the 10-year study period. By contrast, RCI assumed a declining growth rate per end-user over the first six years of its study period along with a lower constant long-term growth rate per end-user over the last four years of the study period. The Commission finds merit in the forecasting approach used by RCI because it is consistent with the life cycle forecasting approach in which the growth rate of a service is higher in the initial years of service introduction and then stabilizes at lower levels over the long term. Consistent with this approach, the Commission adjusts each cable carriers' TPIA cost studies to reflect the application of a declining traffic growth rate in the earlier years of their study periods followed by a lower constant long-term traffic growth rate.

## 2) Capital costing issues

### *a) Bi-directionality costs*

**Positions of parties**

69. Cybersurf claimed that bi-directionality, or two-way functionality, costs were fixed and not causal to the introduction of TPIA service. Cybersurf submitted that once installed, bi-directionality was available for the life of the study. Cybersurf also submitted that bi-directionality was introduced in the cable carriers' networks when the cable carriers rolled out their own retail Internet services, well before TPIA was implemented. Cybersurf further submitted that bi-directionality was used in common with retail Internet, video on demand (VOD), and telephone services.

70. Cogeco and RCI replied that bi-directionality costs were not fixed over the life of their studies. Cogeco and RCI submitted that these costs were not only causal to the introduction of TPIA service, but were causal to the introduction of HSI services and hence should be included in the costing model as all-carrier demand costs.

71. RCI further submitted that every year it replaced amplifiers that enable bi-directionality that had come to the end of their useful life and added new ones in order to extend service to new residential developments.

72. Primus submitted that RCI launched its retail HSI service in the third quarter of 1996 and that the first TPIA tariffs were approved in Order 2000-789. Primus submitted that as two-way functionality was introduced prior to the introduction of TPIA, the costs should not be included in the incremental costs underlying the rates for TPIA.

**Commission's analysis and determination**

73. The Commission notes that, in Order 2000-789, it determined that the cable carriers would incur causal incremental bi-directionality facility costs associated with TPIA service and retail Internet access services. In that Order, the Commission, however, determined that only 75 percent of the proposed all-carrier bi-directionality capital costs would be causal to the TPIA service and retail Internet access services in recognition of the use of these investments for concurrent services such as the cable carriers' interactive services.

74. The Commission notes that the cable carriers continue to incur causal incremental bi-directionality facility costs associated with TPIA service and retail Internet access services. The Commission notes for example that bi-directionality investments are replaced when they come to the end of their useful life. The Commission agrees with the cable carriers' view that bi-directionality costs are not only causal to the introduction of TPIA service but are causal to the introduction of HSI access services and hence should be included in the costing model as all-carrier demand costs. The Commission further considers that the all-carrier incremental bi-directionality costs proposed by the cable carriers in their TPIA cost studies are appropriate and are consistent with Order 2000-789.

75. The Commission further considers that other services can be expected to benefit from these incremental bi-directionality investments over the study period. The Commission notes that Cogeco and RCI have complied with the determinations of Order 2000-789 in their attributions of bi-directionality capital costs to their proposed TPIA cost studies. By contrast, Shaw and Videotron have not applied the adjustments specified in Order 2000-789 but have attributed 100 percent of the all-carrier bi-directionality capital costs in their proposed TPIA cost studies.

76. In light of the above, the Commission accepts the proposed all-carrier bi-directionality capital costs proposed by Cogeco and RCI but adjusts the cost studies of Shaw and Videotron to reflect a 75 percent attribution of the all-carrier bi-directionality capital costs proposed in their TPIA cost studies, consistent with Order 2000-789.

***b) Internet Protocol layer costs***

**Commission's analysis and determinations**

77. The Commission notes that, in Order 2000-789, it determined that the cable carriers would incur causal incremental Internet Protocol (IP) layer facility costs associated with TPIA service and retail Internet access services. In that Order, the Commission determined, however, that only 75 percent of the proposed all-carrier IP layer capital costs would be causal to the TPIA service and retail Internet access services in recognition of the use of these investments for other services such as the cable carriers' interactive services.

78. Consistent with its conclusions reached in Order 2000-789, the Commission considers that the cable carriers will continue to incur causal incremental IP layer facility costs associated with TPIA service and retail Internet access services. Consistent with current costing practice, TPIA cost studies should include the all-carrier costs of these facilities based on the appropriate prospective incremental traffic-driven cost methods. The Commission notes that since Order 2000-789, alternative uses of the IP layer have been substantially less than initially anticipated.

79. The Commission notes that in their proposed TPIA cost studies, each cable carrier indicated that it has reflected 100 percent of the IP layer costs that are deemed to be causal to TPIA service and retail Internet access services, and has excluded the costs associated with any other service which may utilize the IP layer functionality. The Commission considers that, consistent with Order 2000-789, other services can be expected to benefit from these incremental IP layer investments over the study period, but not at the level contemplated in that Order.

80. In light of the above, the Commission changes the percent of the cable carriers' proposed IP layer costs that are causal to TPIA service and retail Internet access service to 90 percent.

***c) Segmentation costs***

**Positions of parties**

81. Cybersurf submitted that segmentation increases the overall capacity of the community access television (CATV) access network and that therefore it was a cost common to all CATV services and was not incremental and causal to the provision of HSI. Cybersurf submitted that,

in Order 2000-789, the Commission recognized the nature of node segmentation capital costs and approved the attribution to TPIA of 50 percent of the cable carriers' proposed node segmentation costs.

82. Cybersurf submitted that segmentation of the cable network into multiple, relatively small, serving areas in conjunction with switching capability would enable the evolution to a switched broadcast architecture with unicasting capability that would allow all cable channel frequencies to be reused at each node, not just channel frequencies dedicated to Internet services. Cybersurf further submitted that when cable operators modernized their networks to a hybrid fibre and coaxial (HFC) architecture through replacement of coaxial trunks and amplifiers with fibre, the resulting fibre segmentation improved the quality of all delivered signals.

83. Cybersurf submitted that under the principle of capacity costing, the total costs for node segmentation should be unitized over the total capacity of the node segment which included all CATV services. Cybersurf was of the view that the cable carriers did not take this approach under their all-demand development of costs, but rather only considered its capacity relative to the delivery of Internet services.

84. In regard to Cybersurf's claim that node segmentation increased the overall capacity of the CATV network, Cogeco submitted that the classical services delivered by a CATV network were of a broadcasting nature and could not benefit in any way from the segmentation process. Cogeco also submitted that reusing spectrum for broadcast channels did not procure any extra capacity.

85. In regard to Cybersurf's comments that node segmentation costs should be allocated across all services, Shaw replied that Cybersurf misunderstood the cost drivers of node segmentation. Shaw submitted that the segmentation costs were driven by the traffic load associated solely with HSI access demand and it was the sole driver of node segmentation. Shaw further submitted that the node segmentation costs included in the cost study were based solely on HSI access traffic. Videotron replied that Internet access planning and congestion avoidance were the dominant drivers of node segmentation and, therefore, Internet access service should bear 100 percent of the costs. RCI replied that Cybersurf avoided the issue of causality and only described segmentation in terms of its association with other services.

86. In response to Cybersurf's comment on the use of switched broadcast architectures to increase the network's bandwidth, Cogeco submitted that no cable operator in Canada deployed such a network and that broadcast services were not responsible for segmentation. Shaw submitted that it did not employ this approach for its broadcast services and thus did not gain the theoretical channel capacity upgrade. Shaw also submitted that node segmentation did not increase broadcast channel capacity but increased the availability of upstream channels which were used primarily for HSI access service. RCI replied that it had not deployed unicasting technology and had increased channel capacity through upgrades.

87. RCI also submitted that Cybersurf confused the replacement of coaxial trunks to the neighbourhood nodes (segment) with fibre, with the deployment of additional fibre for incremental segments caused by Internet traffic. RCI further submitted that its cost study did not include the cost of fibre that was installed to replace coaxial trunk lines in the 1990s when the historical coaxial network was changed to become a hybrid fibre coaxial network.

88. RCI submitted that there was no justification for including only 50 percent of segmentation costs. RCI indicated that node segmentation had never been required for impulse pay-per-view television service and that node segmentation was also not required for digital video services. Cogeco submitted that VOD did not cause significant segmentation and thus was not causal to node segmentation. In addition, Cogeco submitted that telephony did cause extra segmentation but that the cost of the extra segmentation due to telephony that adds to all previous segmentation was not included in its cost model. RCI indicated that it had never segmented for voice services as voice traffic consumed relatively little capacity and that it had approximately 1,200,000 Internet subscribers versus just under 100,000 voice subscribers.

**Commission's analysis and determinations**

89. The Commission notes that, in Order 2000-789, it determined that the cable carriers would incur causal incremental node segmentation facility costs associated with TPIA service and retail Internet access services. In that Order, the Commission, however, determined that only 50 percent of the proposed all-carrier node segmentation capital costs would be causal to the TPIA service and retail Internet access services in recognition of the use of these investments for concurrent services such as the cable carriers' interactive services.

90. Consistent with its conclusions reached in Order 2000-789, the Commission considers that the cable carriers will continue to incur causal incremental node segmentation costs associated with TPIA service and retail Internet access services. Consistent with current costing practice, TPIA cost studies should include the all-carrier costs of these facilities based on the appropriate prospective incremental traffic-driven cost methods. The Commission considers that based on experience since Order 2000-789, alternative uses of segmentation have been much less than anticipated.

91. The Commission however notes that in their proposed TPIA cost studies, each cable carrier indicated that it has reflected 100 percent of its all-carrier node segmentation costs deemed to be causal to TPIA service and retail Internet access services and has excluded the costs associated with any other service which may utilize the node segmentation functionality. In support of this position, the cable carriers have argued that they have included the incremental segmentation costs caused solely by the traffic loads associated with HSI access demand which is the sole driver of node segmentation.

92. The Commission further notes Shaw's submission that node segmentation increases the availability of upstream channels and that this increased upstream channel availability is primarily used for HSI access service. In light of this, the Commission notes that other company services or functionalities are not precluded from making use of the increased upstream channel availability. The Commission considers that node segmentation will also increase the overall capacity of the cable carriers' network, thereby providing a benefit to other cable carrier services.

93. In light of the above, the Commission considers that future services can be expected to benefit from these incremental node segmentation investments over the study period but not at the level contemplated in Order 2000-789. Accordingly, the Commission changes the percent of the cable carriers' proposed segmentation costs that are causal to TPIA service and retail Internet access service to 75 percent.

***d) Shaw's transport fibre costs***

**Positions of parties**

94. Cybersurf submitted that the costs of transport fibre cable[3] included in Shaw's cost study should be treated as common costs, as this resource was used for the carriage of all CATV services on the common fibre backbone. Further, Cybersurf submitted that there was no cost of advancement as fibre cable facilities had the potential for infinite bandwidth capacity, limited only by the capacity of the optical electronics attached to it. Cybersurf submitted, therefore, that the fibre cable transport costs included in the Shaw study should be reduced to zero in recognition of this capacity cost principle.

95. Shaw replied that nearly all of the traffic on these metropolitan area networks (MANs) and the underlying fibre was associated with both the TPIA service and Shaw's retail Internet access services.

96. Shaw further noted that it was common practice in Phase II costing to include costs associated with transport fibre optic facilities. As an example, Shaw pointed to costs associated with a proposed backhaul transport service for Bell Canada's wholesale digital subscriber line (DSL) service.

**Commission's analysis and determination**

97. The Commission notes that by contrast with other cable carriers, Shaw included in its TPIA cost study, the costs associated with inter-office fibre cable. The Commission considers it reasonable to expect that Shaw would incur costs for inter-office cable associated with TPIA service and retail Internet access services.

98. The Commission notes, however, that the costing of inter-office or transport fibre does not lend itself to conventional costing methods such as capacity costing since once inter-office fibre cable is deployed, the increasing demand in the inter-office network is typically met by changing demand or adding fibre transmission equipment, not by adding more fibre. The Commission notes that this was recognized in *Bell Canada Costing of Interoffice Fibre Cable*, Telecom Letter Decision CRTC 93-1, 27 January 1993 (Letter Decision 93-1), where the Commission approved Bell Canada's proposed cost factor approach[4] to determine the causal costs of inter-office fibre optic cable.

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[3] Shaw's transport fibre costs refer to the costs of fibre cable used to transport traffic between the CMTS and the POI router locations. In larger centres, the hub sites, where the CMTS devices are located, are connected to a head-end, where the POI router is located. The CMTS devices and POI routers are connected by a fibre-based metropolitan area network (MAN) that transports traffic between the CMTS and POI routers. The same MAN also transports Shaw's retail Internet service traffic between the CMTS and core routers in the head-end. The MAN is composed of optical fibre and data switches.

[4] Under this costing approach, a fibre cost factor is applied to estimate the fibre cable capital cash flow and capital costs associated with a particular technology. The basic concept underlying the cost factor approach is that expenditures for the fibre cable can be linked to the related technologies that they carry or support.

99. In light of the above, the Commission considers it appropriate to apply a cost factor approach and a fibre cost factor level that is comparable to those used by ILECs to develop Shaw's fibre cable transport facility costs, consistent with the approach used in Letter Decision 93-1. Accordingly, the Commission makes the appropriate adjustments to Shaw's proposed fibre cable transport facility costs to reflect this determination.

***e) Cogeco's information and billing system-related costs***

**Positions of parties**

100. Cybersurf submitted that it appeared that Cogeco had double-counted incremental costs under the categories of information and billing systems-related costs and that these costs should be corrected. Under the information and billing systems category contained under the capital costs causal to service, Cybersurf identified that Cogeco included the costs of labour hours related to develop a billing and operating support system solution, while under the information systems and office equipment category contained under the capital costs causal to demand, it included the costs of modifications and additions to Cogeco's information technology system.

101. Cogeco replied that it did not double-count incremental costs. Cogeco explained that the capital costs in the information and billing systems category only included costs related to the modifications to Cogeco's information technology system that were needed in order to provide provisioning and billing information to TPIA customers.

102. Cogeco also submitted that the description in its cost study of what was included in its information systems and office equipment capital costs causal to demand was incorrect. Cogeco clarified that the category in question included only the capital costs related to the personal computers and office equipment required by the Customer Service Group (CSG).[5]

**Commission's analysis and determination**

103. The Commission notes that Cogeco has clarified the cost inclusions of its information and billing system-related costs. In light of Cogeco's clarification, the Commission concludes that there is no double-counting of costs associated with its information and billing system-related costs.

### 3) Expense issues

***a) Downstream channel costs***

**Positions of parties**

104. The cable carriers indicated that they had used the rate set out in Order 2000-789 for the incremental cost of the capacity of a downstream 6 megahertz (MHz) channel.

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5 The Customer Service Group supports the TPIA service and interfaces with the TPIA customer. It is a direct link between cable carrier and the TPIA customer.

105. Cybersurf submitted that there was no opportunity cost associated with the use of this channel for TPIA since TPIA traffic used the same 6 MHz channel as retail Internet service and did not use a separate downstream channel. Cybersurf also submitted that this cost should be removed from all the cable carrier cost study cash flows.

106. Shaw, Cogeco, and RCI replied that there was an opportunity cost to using the channel since the 6 MHz channel was shared by both retail Internet access and TPIA end-users. Cogeco and Shaw submitted that the channel had a finite amount of bandwidth.

107. Shaw, Cogeco, and RCI also submitted that excluding the costs of the downstream channel would result in the retail Internet access end-users bearing all the costs of the channel and providing the channel for free to TPIA end-users.

108. Shaw further submitted that Cybersurf ignored the Commission's causal costing approach, as well as the Commission's determination in Order 2000-789 that the approach used by the cable carriers was appropriate. Shaw noted that, in Order 2000-789, the Commission agreed that the cost of the 6 MHz channel should be included.

**Commission's analysis and determination**

109. The Commission notes that both the retail Internet access end-users and TPIA end-users use the downstream channel. The Commission also notes that, in Order 2000-789, it found it appropriate to include a cost element to recognize the use of a downstream 6 MHz channel because a channel's use to provide one service would preclude its use to provide another service. The Commission further notes that, in Order 2000-789, it found it appropriate to use the rate approved under the *Broadcasting Act* of $0.152 per basic cable subscriber per month as a proxy to calculate the incremental cost of the capacity of a cable carrier channel.

110. The Commission notes that Cogeco, RCI, and Shaw converted this proxy rate into a cost per home passed rate. The Commission further notes that RCI and Shaw modified the proxy rate of $0.152 to reflect an average penetration rate of 80 percent, the national average penetration rate when the proxy rate was established, while Cogeco did not.

111. The Commission considers that Cogeco should also reflect an average penetration rate of 80 percent. Accordingly, the Commission adjusts Cogeco's proposed downstream channel capital costs to reflect an 80 percent penetration rate, which results in a small reduction in Cogeco's proposed TPIA costs.

***b) Cogeco's monitoring and operations expenses***

**Position of parties**

112. With respect to Cogeco's proposed monitoring expenses associated with ensuring that end-users would not overuse the network and degrade the speed available to other end-users, Cybersurf noted that these costs did not appear to be specific to TPIA service. In this regard, Cybersurf noted Cogeco's claim that as the number of end-users increased and patterns changed, more analysts were needed to monitor the network. Cybersurf further noted that Cogeco had estimated this prospective incremental expense on the basis of the increased

demand for network analysts needed for additional end-users. Cybersurf submitted that TPIA end-users were not necessarily going to add significantly to the total retail Internet end-user base given that many of its TPIA customers would have been the result of migration from the existing cable company retail base. Cybersurf requested that the Commission verify that a proper factor had been included in these demand estimates to account for the migration of cable carriers' Internet customers to TPIA.

113. Cogeco replied that the costs related to monitoring of available bandwidth for TPIA end-users had been classified as costs causal to TPIA service, and that as the number of TPIA end-users increased, Cogeco factored a proportionate increase in monitoring expenses in the cost study. Cogeco submitted that the fact that certain end-users migrated from Cogeco HSI service to the HSI service offered by TPIA customers was irrelevant. Cogeco submitted that, therefore, the adjustment requested by Cybersurf to account for the migration of Cogeco's HSI subscribers to TPIA customers was unnecessary.

**Commission's analysis and determination**

114. The Commission notes Cogeco's submission that it has estimated its proposed incremental monitoring expenses based on the incremental demand of network analysts needed to monitor the additional high-speed access end-users.

115. The Commission notes, however, that Cogeco's proposed per-end-user monitoring and operations expenses for the TPIA service are higher than its corresponding per-end-user retail Internet access service expenses. The Commission considers that the monitoring and operations activities and expenses per end-user would be similar between retail Internet access service and TPIA service. The Commission further notes that Cogeco has included disconnection activity costs in its proposed monitoring and operations costs. The Commission considers it inappropriate to include disconnection costs in these costs, given that such costs would be expected to be recovered as part of the TPIA service charges. In light of the above, the Commission adjusts Cogeco's TPIA monitoring and operations expenses per end-user such that it matches the corresponding per-end-user expenses of its retail Internet access service, and such that the disconnection activity costs are removed.

***c) Shaw's capacity and network planning, and network monitoring expenses***

**Position of parties**

116. With respect to Shaw's proposed capacity and network planning expenses, Cybersurf submitted that these expenses appeared to contain components related to non-TPIA-specific activities. Cybersurf submitted that while these costs were related to additional employees needed for these functions for TPIA service, these employees were also involved with other non-TPIA service functions such as CMTS deployment and maintenance, bandwidth monitoring, and metro network planning, design and documentation. Cybersurf also noted that, in terms of network monitoring, the incremental employees were involved in non-TPIA-specific functions such as network failure responses, network alarm responses, and circuit monitoring. Cybersurf submitted that these costs appeared to contain components related to non-TPIA-specific activities.

117. Shaw replied that, for capacity and network planning, it explicitly included in the TPIA cost study the additional employees required to provide these functions with regard to the introduction of TPIA service. Shaw submitted that the TPIA cost model assumed that Shaw would initially require three employees to handle capacity and network planning for the TPIA service and would reduce this number to one by the start of the fourth year once the initial deployment of POI routers was completed.

118. With respect to the claim that these employees were involved in non-TPIA service functions, Shaw replied that included in the list of functions undertaken by capacity and network planning employees was POI router deployment and maintenance, which was a function specific to TPIA. Shaw indicated that the function caused the incremental requirement of employees.

119. Shaw indicated that any of the employees in the capacity and network planning group might undertake other functions, which were already identified by Shaw. Shaw further indicated that it only included in its cost study the cost of the incremental number of employees related to the introduction of TPIA required to support POI router deployment and maintenance.

120. In regard to the claim that incremental employees associated with network monitoring functions were involved in non-TPIA service functions, Shaw replied that its TPIA service, similar to its own Internet access service, required 24-hour, 7 days a week monitoring of the network. Shaw submitted that, as the number of TPIA end-users and devices on the network increased, the number of employees required to monitor the network also increased. Shaw also submitted that the number of TPIA end-users per employee required for TPIA was determined based on an analysis of the number of employees required to monitor Shaw's network.

**Commission's analysis and determination**

121. With respect to Cybersurf's comments regarding Shaw's capacity and network planning function and network monitoring function, the Commission notes that Shaw confirmed that its TPIA cost study included only those expenses that were causal to the TPIA service. The Commission further notes that Shaw's proposed network planning and monitoring expenses per end-user are comparable to those proposed by other cable carriers. The Commission considers that Shaw's proposed capacity and network planning function and network monitoring expenses are causal to the TPIA service and are appropriate.

***d) Hybrid fibre and coaxial architecture maintenance expenses***

**Position of parties**

122. Cybersurf submitted that HFC maintenance expenses should be removed from all TPIA cost studies because these expenses related to the ongoing maintenance of bi-directional plant which, in Cybersurf's view, was plant that did not contribute to the causal incremental costs associated with TPIA service. In its reply comments, RCI submitted that the maintenance expenses were ongoing costs incurred and necessary for the provision of HSI access services and, therefore, Cybersurf's argument should be rejected.

**Commission's analysis and determination**

123. As noted above, the Commission accepts the cable carriers' proposals to include bi-directionality capital costs as they are considered to be causal incremental costs associated with the provisioning of HSI access services, including the TPIA service. The Commission further considers that HFC maintenance expenses are ongoing costs related to maintenance of this bi-directional plant required for HSI access services, and as such are also causal to TPIA service. Accordingly, the Commission concludes that it is appropriate to include HFC maintenance expenses in the TPIA cost studies proposed by the cable carriers.

***e) Videotron's IP layer operations expenses***

**Commission's analysis and determinations**

124. In reviewing each cable carrier's operations and maintenance expenses proposed in the TPIA studies, the Commission observed that Videotron's proposed IP layer operations expenses per end-user for its TPIA service were higher than the corresponding per-end-user expenses for its retail Internet access service.

125. The Commission considers that each cable carriers' TPIA service and retail Internet access service share network infrastructure and as a result make use of comparable maintenance and operations activities. The Commission therefore considers that the activities and expenses per end-user would be similar between retail Internet access and TPIA services.

126. In light of the above, the Commission adjusts Videotron's IP layer operations expenses per end-user for its TPIA service such that it matches the corresponding per-end-user expenses of its retail Internet access service.

***f) End-user support-related expenses***

**Commission's analysis and determination**

127. The Commission notes that in reviewing each cable carrier's support-related expenses proposed in the TPIA studies, the Commission observed that the support-related TPIA expenses per end-user were generally higher for Cogeco, RCI and Videotron than the corresponding per-end-user expenses for their retail Internet access services.

128. The Commission notes that ISPs that make use of TPIA service will provide their own technical support to address service problems reported by their retail end-users and would escalate service problems that they could not resolve to the cable carrier. The Commission expects that the cable carriers' technical support-related activities for TPIA service would be less than the corresponding activities related to their own retail Internet access services because of the up-front support provided by ISPs in servicing their own end-users.

129. The Commission considers that the cable carriers' proposed higher support-related costs per end-user for their TPIA services relative to their retail Internet access services reflect inefficiencies related to the start-up of the TPIA service. The Commission further considers that as experience is gained in the provision of the TPIA service, the cable carriers will achieve

efficiencies in their TPIA service support activities over the study period and, due to first-line support-related activities by the ISPs, the support-related costs per end-user for the TPIA service are expected to be less than those of the support-related costs per end-user for their retail Internet access services. In light of expected efficiencies and the level of end-user support provided by the ISPs, the Commission considers it appropriate to adjust the support-related costs per end-user for the TPIA service to 80 percent of the support-related costs for the retail Internet access service.

130. Accordingly, the Commission adjusts the following cable carrier expense components related to reporting and resolution of end-user problems to reflect per-end-user expense levels for these activities that are 80 percent of those incurred for the cable carriers' retail Internet access services:

- Cogeco's trouble ticket and service calls costs and assistance costs,
- RCI's trouble reporting and repair costs, and
- Videotron's technical service and assistance costs.

***g) Customer Service Group (CSG) expenses***

**Commission's analysis and determination**

131. The Commission notes that the CSG expenses per end-user proposed by Cogeco and Videotron are significantly higher when compared to RCI and Shaw. These differences are primarily due to the differences in the assumptions related to employee-to-end-user ratios that the cable carriers have used in their calculations. The Commission also notes that in their cost study proposals and interrogatory responses, none of the cable carriers have explained how they determined the number of CSG employees required to support these end-users.

132. The Commission considers that, since the CSG of each cable carrier provides comparable services to competitors, it is reasonable to expect uniform employee-to-end-user ratio assumptions across the cable carriers, including more consistent assumptions with respect to the base number of employees at the start-up stage of implementing this CSG. The Commission has reviewed the CSG costs of all cable carriers and finds the proposed costs for Cogeco and Videotron to be unreasonable.

133. Accordingly, the Commission adjusts the CSG expenses for Cogeco, and Videotron to reflect common assumptions across all cable carriers.

***h) Bad debt expenses***

**Commission's analysis and determination**

134. The Commission notes that the four cable carriers' TPIA cost studies contained costs associated with bad debt expense expected for the TPIA service. The Commission also notes that the bad debt expense was forecasted based on an assumed percentage of the annual TPIA revenue.

The Commission further notes that the assumed percentage of revenues associated with bad debt for RCI, Shaw, and Videotron was significantly higher than the level assumed by Cogeco and the bad debt expense level determined in Order 2000-789.

135. Accordingly, the Commission reduces the TPIA bad debt expenses of RCI, Shaw, and Videotron consistent with the bad debt expense level determined in Order 2000-789. The Commission notes that with this adjustment the bad debt expense levels for RCI, Shaw, and Videotron are more in line with that proposed by Cogeco in its TPIA cost study.

***i) Cogeco's billing expenses***

**Commission's analysis and determination**

136. The Commission has reviewed the cable carriers' proposed billing expenses for each cable carrier's TPIA cost studies. Given that Cogeco's proposed expenses relate to a functionality that is comparable to those of the other cable carriers, the Commission considers Cogeco's proposed per-end-user billing-related expenses, which are significantly higher than those of the other cable carriers, to be unacceptable. Accordingly, the Commission adjusts Cogeco's proposed billing-related expenses to bring its per-end-user cost levels in line with those of the other cable carriers.

***j) Cogeco's income tax and revenue-related expenses***

**Commission's analysis and determination**

137. The Commission considers that Cogeco improperly calculated in its TPIA cost studies, the income tax expenses associated with its in-service demand, resulting in an overstatement of income tax expenses. Further, the Commission notes that Cogeco has included its percent mark-up on revenues before calculating revenue-related expenses, such as revenue contribution charge, bad debt expense, and telecommunications fees. The Commission finds it inappropriate to include as Phase II costs, the proposed revenue-related expenses on the difference between revenues and Phase II costs. Accordingly, the Commission adjusts Cogeco's proposed TPIA costs to correct Cogeco's income tax expenses calculations and to reflect the removal of the percent mark-up on revenues before calculating its revenue-related expenses.

## C – Rate issues

### 1) Mark-up for end-user rates

**Positions of parties**

138. Cybersurf adopted its comments filed in response to Shaw's TN 8. Cybersurf submitted that TPIA services were similar to the essential services of the ILECs which were classified as Category I competitor services that had a 15 percent mark-up. Cybersurf also submitted that mark-ups on the Phase II costs used to set the rates for TPIA end-user services were excessive and needed to be reduced.

139. Cybersurf submitted that the sustainability of competitor service rates with very high mark-ups on services required by competitors was proof that no significant alternative sources for such services were readily available, such as in the case of ADSL, which was classified as a Category II competitor service. Cybersurf submitted that it continued to buy ADSL, charged at a premium, given the lack of real alternative supply.

140. Cybersurf subsequently supplemented its comments, noting that in *The Quebec Coalition of Internet Service Providers – Part VII application regarding Internet services*, Telecom Decision CRTC 2006-49, 3 August 2006, the Commission refused to classify Bell Canada's GAS and High-speed Access (HSA) service as Category I competitor services. Cybersurf submitted, however, that GAS/HSA was an end-to-end service and that a separate option for co-location existed through which unbundled loops could be leased at Category I rates. Cybersurf submitted that in the case of the use of cable networks by third-party ISPs, no co-location option existed for the TPIA facilities-based mode of competition.

141. In addition, Cybersurf submitted that the bulk of costs that competitors of both incumbent telephone and cable carriers incurred were the payments made to those incumbents and therefore excessively high mark-ups on services obtained from these carriers resulted in reduced margins for the competitors that retarded their ability to roll out their own networks.

142. In Cybersurf's view, for the purpose of TPIA end-user rate-setting, the mark-up on Phase II costs should not exceed the lower of either: (1) 15 percent or; (2) the lowest mark-up applied by a cable carrier on its own corresponding retail service.

143. The CCTA, on behalf of Cogeco, RCI, and Shaw, submitted that the mark-up applied to the Phase II costs to determine TPIA end-user rates should ensure that the rates for the service would permit cable carriers a reasonable opportunity to recover costs they incurred in the course of providing TPIA.

144. The CCTA also submitted that, in addition to the associated causal costs, the mark-up should provide a contribution towards the cable carriers' fixed and common resources as well as variable common costs. The CCTA further submitted that variable common costs were typically captured through the application of a variable common cost factor applied in a Phase II cost study but, since the cable carriers had not developed such a cost factor, these variable common costs needed to be recovered through the mark-up.

145. The CCTA further submitted that TPIA service did not meet the criteria that the Commission had established for an essential or near-essential service, nor was it in the nature of an essential service. The CCTA added that a more appropriate basis for setting a mark-up was found in the Commission's treatment of ILEC services categorized as Category II competitor services and the ILECs' ADSL access service. The CCTA submitted that the mark-up and per-end-user rates should reflect a market-based approach to the pricing of access services.

146. The CCTA submitted that artificially lowering the TPIA rates through the application of an inappropriately low mark-up or through the exclusion of appropriate causal costs would negatively impact the retail Internet service market and could undermine network and service enhancements.

147. In their reply comments, the cable carriers argued that TPIA services did not meet the Commission's criteria as set out in *Local competition*, Telecom Decision CRTC 97-8, 1 May 1997, for determining whether a facility or a service was essential. The cable carriers submitted that TPIA service was not an essential or near-essential facility because ISPs did not face monopoly supply but rather enjoyed a variety of options that permitted them to provide HSI service. In this regard, the cable carriers submitted that Cybersurf's own comments referred to the competing GAS/HSA regime, by which ISPs might gain access to an alternative delivery network for Internet access services.

148. In addition, Shaw noted the Commission's position in the past that high-speed access could not be considered either essential or near-essential. Shaw also noted that the Commission confirmed its position in *Bell Aliant Regional Communications, Limited Partnership – Asymmetric digital subscriber line wide area network service,* Telecom Order CRTC 2006-217, 23 August 2006, as amended by Telecom Order CRTC 2006-217-1 dated 29 August 2006 (Order 2006-217), that wholesale broadband services were not essential services. Shaw submitted that competitors had options for the provision of this type of broadband service to their customers, including building their own networks, co-locating their own ADSL equipment in Bell Aliant Regional Communications, Limited Partnership (Bell Aliant) central offices, and subscribing to Bell Aliant's ADSL access service, or using incumbent cable carriers' TPIA service, where available.

149. Shaw further noted that, in Order 2006-217, the Commission denied the Independent Members of the Canadian Association of Internet Providers' request to have Bell Aliant's ADSL wide area network (WAN) service classified as an essential service and to set rates at Category I competitor service levels.

150. In regard to the suggestion that TPIA should be classified as a Category I competitor service because no co-location existed for TPIA service, RCI and Shaw submitted that Cybersurf ignored the fact that ADSL service was a substitute for TPIA service and that the two services competed with each other.

151. In regard to Cybersurf's argument that TPIA service should be treated as an essential service because the bulk of Cybersurf's costs were paid to cable carriers, Shaw submitted that Cybersurf chose to use Shaw's network, rather than build out its own network like other new entrants. Shaw further submitted that it incurred almost all the costs of providing Cybersurf's service which was why Cybersurf had to pay Shaw the bulk of its revenues.

152. In regard to Cybersurf's claim that the mark-up on Phase II costs proposed by the cable carriers was excessive, Cogeco submitted that it had not refuted any of the arguments provided by the CCTA.

153. In regard to the alternative mark-up approaches proposed by Cybersurf, Cogeco submitted that, in the absence of a mandated mark-up, it was up to each company to apply the mark-up deemed appropriate to contribute to the fixed and common costs and some variable common costs. Cogeco and RCI submitted that the level of mark-up applied in their 2006 TPIA cost studies was appropriate.

154. Videotron submitted that the cable carriers' retail mark-ups were set in response to the competitive conditions these carriers faced, and had no relevance to an assessment of the rates payable by third parties to access cable carrier facilities based on Phase II costs.

155. Shaw submitted that approving reduced rates as requested by Cybersurf would discourage Cybersurf from building its own facilities.

**Commission's analysis and determination**

156. In Decision 99-8, the Commission stated that the IP data transport function was not in the nature of an essential facility. Further, in *Final approval granted to Special Facilities Tariff for the location of customer provided ADSL-related equipment in Bell Canada's central offices*, Order CRTC 2000-211, 23 March 2000 (Order 2000-211), the Commission reconfirmed this view when it stated that high-speed access, provided by both telecommunications carriers and cable network operators, is not in the nature of an essential service.

157. In Order 2000-789, the Commission determined that, for purposes of establishing the approved per-end-user rates, the carriers' proposed mark-ups were appropriate and used them in establishing the approved end-user rates. The Commission also considered that the mark-ups provided an appropriate contribution to fixed common costs and allowed for the recovery of variable common costs.

158. The Commission continues to be of the view expressed in Order 2000-211 that the high-speed access, provided by both telecommunications carriers and cable network operators, is not in the nature of an essential service. The Commission further agrees with the view taken by the CCTA that a more appropriate basis for establishing prices for the cable carriers' high-speed access would be one that is consistent with the treatment of an ILEC's Category II competitor service. The Commission further considers that the approach taken in Order 2000-789, whereby the cable carriers' TPIA service rates are determined based on each cable carrier's current TPIA service costs plus an appropriate mark-up, continues to be appropriate.

159. The Commission notes that the mark-up proposed by the cable carriers in this proceeding is the same as the mark-up approved in Order 2000-789. The Commission further considers that this proposed mark-up level continues to provide an appropriate contribution to the cable carriers' fixed common costs and allows for the recovery of variable common costs. In light of the above, the Commission considers that the mark-up proposed by the cable carriers in this proceeding is appropriate.

### 2) Mark-up for POI and service charges

**Background**

160. As noted above, consistent with Decision 2004-69 in this proceeding the Commission is considering the appropriate level of mark-up regarding the TPIA POI and associated service charge rates. The Commission notes that in Decision 2004-69, the Commission directed Cogeco, RCI, Shaw, and Videotron to file within 30 days of the date of the Decision, supplementary justification to support the level of mark-up over costs appropriate for TPIA interconnection and service charge rates.

**Positions of parties**

161. Xittel commented that if the selected mark-up for the TPIA POI and service charge rates was such that it resulted in a rate increase, this would need to be examined in a separate proceeding and should be supported by updated Phase II cost studies.

**Commission's analysis and determination**

162. The Commission notes that other than Xittel's comments no comments were received with respect to this issue as a result of its directive in Decision 2004-69.

163. The Commission notes that no changes to the mark-up level were proposed by the cable carriers in this proceeding and that this Decision sets out the mark-up for the per-end-user TPIA monthly rate on a final basis.

164. The Commission further notes that the POI and service charge rate elements are integral to the TPIA service offered to competitors.

165. In light of the above, the Commission considers that the mark-up determined for the TPIA per-end-user rate is also the appropriate mark-up to use for the POI and service charge components of the TPIA service. The Commission notes that the mark-up used to set interim rates for POI and service charge components is equal to the mark-up approved in this Decision for the TPIA per-end-user rates. Accordingly, the Commission determines that the interim rates for the POI and service charges should be approved on a final basis.

## 3) Final rates

**Commission's analysis and determinations**

166. The Commission notes that, in Order 2006-55, it modified Shaw's proposed rates for its TPIA Lite, Regular and Xtreme speeds, and approved those rates on an interim basis, effective the date of that Order. Accordingly, Shaw's TPIA rates approved in this Decision are made effective 20 March 2006, the date of Order 2006-55.

167. The Commission **approves on a final basis** the monthly TPIA per-end-user rates set out in the table below, effective the date of this Decision for Cogeco, RCI, and Videotron, and effective 20 March 2006 for Shaw. The Commission notes that these approved rates are based on the cable carriers' August 2006 Phase II cost studies, as adjusted to reflect the Commission's costing determinations in this Decision, plus the appropriate mark-up.

168. Accordingly, Cogeco, RCI, Shaw, and Videotron are to issue, within 30 days of the date of this Decision, revised tariff pages for the monthly TPIA per-end-user rates that reflect the Commission's determinations in this Decision, and provide a copy to the Commission.

**Final monthly TPIA rates per end-user ($)**

| Service[6] | **Cogeco** | **RCI** | **Shaw** | **Videotron** |
|---|---|---|---|---|
| Lite | 16.07 | 15.42 | 17.25 | 16.22 |
| Regular | 20.79 | 20.24 | 21.03 | 19.12 |
| Extreme | 33.26 | 25.61 | 24.80 | 70.15[7] |

169. The Commission notes that these approved per-end-user TPIA rates are to be charged on a month-to-month basis, with no minimum contract period beyond one month, consistent with Order 2000-789, as reflected in the tariff proposals of Cogeco, Shaw, and Videotron.

170. With respect to the POI rates and service charge rate element, the Commission **approves on a final basis** the current interim rates as set out in Decision 2004-69, effective the date of this Decision.

## D – Proposals for changes to the TPIA service

### 1*)* POI locations and transport rates

#### Positions of parties

171. The cable carriers indicated that they could provide TPIA, on a negotiated basis, using fewer POIs where demand for such a service existed, provided that they were compensated for the resulting transport costs.

172. Cybersurf claimed that it had not been successful in negotiating such arrangements with certain cable carriers. In light of this, Cybersurf requested that the Commission require the cable carriers to develop transport rates covering the aggregation and backhaul of ISP traffic associated with the concentration of such traffic resulting from the use of one POI or POIs for large geographical regions within a cable carrier's operating territory.

173. Cybersurf suggested that these arrangements be made available wherever a cable carrier's systems were already interconnected so as to make the aggregation and backhaul of ISP traffic feasible without extensive new construction.

174. In its reply comments, Cogeco submitted that Cybersurf's proposal was beyond the scope of this proceeding and, in addition, was unnecessary because the TPIA regulatory framework did not preclude the possibility of providing TPIA at alternative POIs.

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6 The naming conventions of the TPIA end-user services differ across the cable carriers. For the purposes of this rate table, the three TPIA services now branded Lite, Regular, and Pro for Cogeco; Lite, Express, and Extreme for RCI; Lite, Regular, and Xtreme for Shaw; and Basic, High-Speed, and Extreme for Videotron will be referred to as Lite, Regular, and Extreme TPIA services.

7 This rate reflects Videotron's tracked end-user usage, which is significantly higher compared to the other cable carriers.

175. Cogeco submitted that it could provide transport service on its backbone where mutually agreeable terms could be achieved, upon bi-lateral negotiations, in areas where capacity and capability existed. Cogeco further submitted that larger ISPs who wished to cover the same footprint as Cogeco could build their own backbone networks or lease IP, data transport, or backbone services from carriers that were present across Cogeco's operating territory.

176. Cogeco submitted that it could be in the interest of cable carriers and competitors to not incur further costs of deploying POIs. In addition, Cogeco, supported by RCI, expressed concern that some POIs could be rendered needless in the future.

177. RCI submitted that its current service architecture was developed after extensive consultation with ISPs, many of whom wanted to serve smaller geographical territories. RCI also submitted that offering both disaggregated POI locations and centralized locations would complicate the architecture and operation of TPIA service, and thereby increase costs.

178. RCI also submitted that the POI rates established by the Commission in Decision 2004-69 were based on the costs of the POI being spread over three customers. RCI further submitted that, at the present time, this assumption did not hold for the 10 POIs that it deployed as it was currently in a significant loss position. RCI proposed to add these unrecovered costs to the costs of any aggregation and backhaul proposal identifying a single POI for large geographical areas.

179. Shaw submitted that Cybersurf's request should be denied since the current TPIA service configuration was based on the deployment of a specified number of POI routers to serve all homes passed. Shaw further submitted that many of these routers had already been purchased and deployed in various head-ends throughout Shaw's serving territory and that these costs had not yet been recovered.

180. In addition, Shaw submitted that creating one or more POIs for large geographical regions within Shaw's serving areas would be technically burdensome and that to reconfigure its POI deployments to meet Cybersurf's request would require Shaw to expend substantial time and resources which would also need to be recovered.

181. Shaw submitted that it did not possess significant market power in the provision of the requested transport services, as these services were competitively available. Shaw suggested that Cybersurf either construct its own transport facilities or lease the required services from other service providers.

182. Shaw submitted that Cybersurf had not demonstrated that it was unable to secure the requested backhaul services from an alternate source but instead appeared to be seeking a regulated solution where one was not required. Shaw further submitted that there was no public policy rationale for requiring Shaw to provide a regulated tariff service where the service was competitively available and where it did not possess significant market power in the provision of the requested service.

183. In its reply comments, Videotron noted that it already permitted an ISP to access its entire territory from only five POIs, with the requisite aggregation and backhaul costs having been included in Videotron's cost study. Videotron submitted that it considered this to be an optimal

balance between the needs of large province-wide ISPs and small regional ISPs. Videotron also submitted, however, that a further aggregation into a single POI was technically feasible and that Videotron should be allowed to recover any incremental aggregation and backhaul costs through its TPIA tariff.

184. Cogeco submitted that agreeing to Cybersurf's proposal would be counterproductive and against the attainment of the policy objectives set out in paragraph 7(f) of the Act which required that the Commission rely to the extent possible on market forces and ensure that regulation, where required, was efficient and effective. Cogeco submitted that Cybersurf's proposal should be denied without further examination.

**Commission's analysis and determinations**

185. The Commission considers that the alternative POI arrangements Cybersurf requested would represent significant changes to the current TPIA service architectures of the cable carriers and would require significant network resources. In view of this, the Commission considers that Cybersurf's request goes beyond issues related to TPIA end-user access rates, terms and conditions. The Commission therefore concludes it is not appropriate to consider Cybersurf's request in this proceeding.

186. The Commission intends to issue in the near future, a letter to parties to this proceeding to pursue this matter.

### 2) Proposal for a different architecture

187. Xittel submitted that it could not use the existing TPIA service to offer Internet access, voice, and high-definition video services required for it to compete with cable carriers and ILECs.

188. Xittel submitted that the Commission must amend the definition of TPIA service so that the cable carriers' TPIA service was equivalent to the ILECs' unbundled local loops. Xittel submitted that the amended definition of the TPIA service would allow ISPs to co-locate their own CMTS and lease radio frequency (RF) channels on the HFC network of the incumbent cable carriers.

189. Primus submitted that a workable TPIA regime was required to check the market power of the cable carriers, especially with no co-location alternative in the cable carriers' head-ends similar to the arrangements available to DSL service providers in ILEC central offices.

190. Primus also submitted that, in the absence of a workable TPIA regime, the access networks of one-half of the current access duopoly in Canada would be closed to competitors as an option for meeting the competitive service requirements of the Canadian public. Primus further submitted that Canadian consumers could benefit from the increased level of competition that efficient non-incumbent service providers could generate through the use of incumbent wholesale services. In Primus's view, a workable TPIA regime would serve to further increase the levels of competition and choice in that market.

191. Cogeco replied that Xittel misunderstood the capabilities of a cable network. Cogeco submitted that any attempt at establishing similarity with the local loop concept was inappropriate, given that the TPIA service was provided on the same frequencies as those used by the cable carriers to provide their own HSI service, on a shared network basis. Cogeco submitted, therefore, that applying the local loop concept required dedicating frequencies to each TPIA customer, which was unreasonable from a financial and technical perspective, given that available frequencies on a cable network were in very short supply.

192. Cogeco argued that if Xittel had to offer Internet access services that incorporated voice and video in order to survive, it did not automatically follow that the pricing of the cable carriers' HSI services and retail and wholesale services had to be reviewed in their entirety to satisfy Xittel's business plan. Cogeco further submitted that Xittel seemed to be unaware that the Commission's role was not to ensure the financial viability of the companies competing in the market, but rather to ensure that the tariffs for regulated TPIA services were just and reasonable, in compliance with subsection 27(1) of the Act.

193. Cogeco noted that this request went well beyond the goal of this proceeding, and that the Commission should dismiss it without further review.

**Commission's analysis and determinations**

194. The Commission notes that the current TPIA service and the cable carriers' HSI access service both share channels for transmission of data. Xittel's requested change would require cable carriers to provide separate dedicated channels for each competitor. The Commission notes Cogeco's submission that making dedicated channels available to ISPs would be expensive and technically challenging given the limited supply of channels in a cable network. The Commission further notes Cogeco's submission that Xittel's request for such a change to the TPIA service was beyond the scope of this proceeding.

195. The Commission considers that Xittel's request represents a fundamental change in the definition of the TPIA service that is outside the scope of this proceeding. Accordingly, the Commission denies Xittel's request for its proposed amendment to the definition of the TPIA service.

196. With respect to Primus's submission regarding the need for a workable TPIA regime, the Commission considers that the TPIA services approved in this Decision provide an adequate response to this concern.

### 3) Wholesale and retail service speed availability

**Positions of parties**

197. Cybersurf submitted that the delay between the introduction of cable carrier retail Internet services and the availability of those services under TPIA significantly prejudiced competition in the provision of retail Internet services. Cybersurf noted, for example, Videotron's confirmation that it would not necessarily develop a wholesale TPIA service that corresponded to every retail Internet service offered. Cybersurf submitted that a safeguard was required, mandating the creation of an approved wholesale TPIA service before a cable carrier was allowed to offer a corresponding retail Internet service.

198. Primus expressed the view that access speeds and retail prices were two key factors used by consumers to determine which service provider to choose. Primus submitted that, in order to compete with an incumbent cable carrier, competitors needed wholesale tariffs that permitted them to match the advertised access speeds of the incumbent. Primus further submitted that, for the most part, the cable carriers offered or proposed to offer wholesale download rates that matched their retail service offerings, with the exception of Cogeco.

199. Primus noted that Cogeco's two fastest wholesale speeds were significantly slower than its two fastest retail speeds, submitting that competitive service providers wishing to compete with Cogeco's standard retail service would either have to settle for the 7.0 megabits (Mbps) service Cogeco offers or take the highest wholesale rate available from Cogeco in order to obtain a 10.0 Mbps access service. Primus submitted that there was no option available for competitive service providers with which they could compete against Cogeco's Pro retail service at 16 Mbps.

200. Primus requested that the Commission direct the cable carriers to ensure that the speeds available through their wholesale services match the speeds that were available at the retail level, noting that Bell Canada and TELUS Communications Company both have made this commitment on certain of their HSI access services.

201. In its reply comments, Cogeco submitted that the upgrade of its retail HSI speeds announced on 7 August 2006 was also made available for the corresponding TPIA services at the same time and that it received no complaint from its TPIA customers in this regard. Cogeco submitted that its TPIA customers, as customers of Cogeco, were not discriminated against since Cogeco's end-user speeds had matched the speeds of Cogeco's HSI end-users at the same time.

202. With respect to Cybersurf's proposed safeguard, Cogeco submitted that Cybersurf's concern was not shared by all ISPs. Cogeco submitted that, in practice, the implementation of this proposed safeguard would have the effect of regulating the cable carriers' high-speed services in a highly competitive market and would be totally inefficient, ineffective, and hence contrary to the policy objective set out at paragraph 7(f) of the Act.

203. Cogeco further submitted that, as noted by the Commission in *Regulatory framework for voice communication services using Internet Protocol*, Telecom Decision CRTC 2005-28, 12 May 2005, as amended by Telecom Decision CRTC 2005-28-1 dated 30 June 2005, it was unnecessary to impose restrictions on broadband service providers since the Commission could rely on subsection 27(2) of the Act and resolve on a case-by-case basis any competitive dispute in a timely manner, using its expedited procedures. Cogeco submitted that Cybersurf's request should therefore be denied.

204. RCI expressed the view that it would be inappropriate to constrain the retail service market in the manner proposed by Cybersurf. RCI submitted that should a corresponding access service be mandated for any new retail offering, the Commission could move expeditiously to establish an approved rate.

205. RCI also submitted that should the time lag appear to be lengthy, the Commission could establish reasonable interim rates and that any difference between the final approved rate and the interim rate could be settled after the determination of the final rate. In RCI's view, this course of action could be readily implemented to no parties' advantage.

206. Regarding Cybersurf's comments about not developing a wholesale TPIA service that corresponded to every retail Internet service offered, Videotron replied that its recently launched Extreme Plus HSI Service was expected to appeal to a very narrow clientele. Videotron submitted that through its existing and proposed Basic, High-Speed and Extreme High-Speed TPIA service offerings, interconnecting ISPs would have the means to address the overwhelming majority of the retail Internet access market through Videotron's network.

207. Videotron also submitted that, given the limited existing demand for its TPIA services overall, it did not consider it reasonable to invest its financial and engineering personnel in a new TPIA cost study at this time, nor did it possess a meaningful amount of network usage data with which to undertake a cost study for Extreme Plus High-Speed service.

208. Videotron expressed the view that there was no persuasive requirement for a cable carrier to immediately conduct a Phase II cost study for each new high-speed service offering, and strongly objected to the proposal that it be impeded from launching new retail offerings until it had done so.

**Commission's analysis and determinations**

209. The Commission notes Cogeco's, RCI's, and Videotron's concerns that the implementation of Cybersurf's proposed safeguard would have the effect of constraining the cable carriers' unregulated retail HSI access services markets. The Commission notes further that most cable carriers offer, or have proposed to offer, wholesale services that match the speeds available at the retail level. The Commission considers that the availability of competitor TPIA services that match the speeds of retail HSI access services would enable competitors to compete on a more equitable basis. Accordingly, the Commission determines that if a cable carrier introduces a new retail Internet service speed, it is to file, at the same time, proposed revisions to its TPIA tariff to include this new speed offering, with a supporting cost study.

210. The Commission further notes that the above-noted competitor concerns may also occur at the time that a cable carrier upgrades the speed it provides to its retail customers for a given service with no corresponding price change. The Commission determines that should a cable carrier introduce a speed upgrade to one of its retail Internet service offerings with no corresponding price change, it is to issue at the same time, revised TPIA tariff pages that match these retail service speed changes with no corresponding price change.

211. The Commission also notes Videotron's position that it should not be required to file a TPIA cost study that matches its Extreme Plus High-Speed retail service in light of the limited demand for the company's retail service at this time. The Commission determines that, in the case of an existing retail Internet access service offered by a cable carrier with no corresponding TPIA service, the cable carrier is to file proposed revisions to its TPIA tariff to include the corresponding TPIA service, with a supporting cost study, within 60 days of the date of this Decision.

### 4) Service level agreements and service outages

**Positions of parties**

212. Cybersurf encouraged the Commission to initiate a proceeding as promptly as possible to implement competitor quality of service (Q of S) standards for TPIA services with a corresponding standardized service level agreement that provided for service credits in the event of outages or the provision of service that did not meet the applicable standards.

213. In support of its request, Cybersurf submitted that it had experienced a number of outages, some of them very lengthy, which only affected TPIA customers. Cybersurf noted that the cable carriers' TPIA tariffs and agreements did not currently provide any significant deterrent for outages.

214. Cogeco replied that Cybersurf had provided no evidence or reason as to why this issue, which was beyond the scope of this proceeding, should be considered by the Commission. Shaw submitted that Cybersurf's request should be denied as there was no requirement to implement competitor Q of S standards for TPIA or a rebate plan.

215. RCI argued that the development of Q of S standards for TPIA would be very problematic as HSI access service over cable plant was a best-efforts service. RCI submitted that in some cases the cable provider had control over the Q of S levels, but in other cases, such as issues with the backbone and individual server sites, the provider had no control. RCI also submitted that the existing tariff makes provisions for service credits in the event of outages, and that, therefore, the requested proceeding was not necessary.

216. Videotron submitted that TPIA service quality on its network was steadily increasing as the company and its TPIA customers gained experience with the service. In Videotron's view, the drafting and negotiation of complex service level agreements were not a priority use of scarce resources at this time.

**Commission's analysis and determinations**

217. The Commission notes that RCI submitted that it does not provide service level guarantees for its HSI access services because it does not always have control over all components of the service, such as backbone and individual server sites. The Commission also notes that the general practice in the marketplace, for both retail and competitor services, is to provide service on a best-efforts basis to all customers. Accordingly, the Commission considers that the cable carriers should not be required to implement service level guarantees for their TPIA services. The Commission expects, however that a cable carrier's service levels that apply to TPIA services will be no less than the service levels that apply to that cable carrier's customers for retail Internet access services.

218. With respect to the issue of rebates for competitors in the case of network outages, the Commission notes that RCI has referred interveners to its existing tariff that includes provisions for service credits in the event of outages. The Commission notes that the tariffs of Cogeco, Shaw, and Videotron also contain provisions for service credits in the case of outages.

In the Commission's view, when a problem in any part of a cable carrier's network directly associated with providing competitor TPIA service would cause an end-user to lose its connection, this would be considered an outage. The Commission considers that in such a scenario, the competitor would be entitled to request a refund for any portion of the monthly rate related to that outage, in proportion to the length of time of the outage. Since the approved tariffs of the cable carriers already include provisions for such rebates, the Commission concludes that no further action is required with respect to this matter.

### 5) Alternative payment plans for standard service connection charges, and service transfer fees

#### Positions of parties

219. Primus submitted that the cable companies should be directed to institute alternative payment plans for service charges, similar to the three payment options offered in Bell Canada's GAS tariff.

220. Primus submitted that service charges were a significant deterrent to the use of TPIA service, specifically, the standard connection charge found, for example, in Cogeco's and Videotron's TPIA tariffs. Primus noted that, in every case, the installation fee in the TPIA tariffs was greater than $60.00 per customer, and in the case of Videotron was as high as $82.93. Primus also noted that, by contrast, for each of Videotron's Basic, High-Speed and Extreme retail services, installation was free.

221. Primus submitted that the net effect of Videotron's decision to waive retail installation fees was that wholesale customers were required to absorb the tariffed wholesale installation fee. In Primus's view, it was completely unrealistic to expect its retail customers to pay installation fees as high as $82.93 in the face of a free installation offer by the incumbent.

222. In addition, Primus submitted that the Commission should eliminate the service charge contained in the cable carriers' TPIA tariffs that was applied when the customer of one ISP transferred to another ISP using the TPIA service of the cable company.

223. Primus assumed that this charge would be assessed if one of its end-customers were to opt for the service of a competing ISP which was also using the same cable company's TPIA service or if an end-customer were to transfer to the retail service of the same cable company.

224. Primus submitted that a service provider should not be assessed any such service termination charge when it lost a customer. Primus also submitted that any action required by the cable company to transfer to another service provider was not initiated by the existing ISP and, therefore, in its view, the existing ISP should not be assessed any charge. Primus further submitted that any cost to the cable company for these transfer activities should be deemed by the Commission to be recovered by the standard connection charge that the new ISP would be assessed by the cable company.

225. Videotron confirmed that it did not assess a service transfer charge, while RCI and Shaw submitted that the subject of service connection charges and service transfer charges were outside the scope of this proceeding and therefore should be disregarded by the Commission.

226. RCI also submitted that, based on the substance of Primus's argument, it could not expect its TPIA end-users to pay a connection fee when the cable carriers did not charge a connection fee to their end-users. RCI and Shaw submitted that this matter was thoroughly canvassed in the proceeding leading to Decision 2004-69.

227. RCI noted that, in that Decision, the Commission stated that the standard customer connection charge provided for service order processing as well as service provisioning activities, outlet installation and network signal testing at the end-customer premises, and existing drop wire reconnection if necessary.

228. RCI submitted that both the cable carriers and the ISPs had a choice as to how to recover these costs from end-users. RCI submitted that, notwithstanding the fact that the costs were incurred upfront, cable carriers generally had chosen to recover the costs from end-users over time from their monthly recurring charges as opposed to recovering them upfront in a one-time charge.

229. With respect to Primus's comments on the service transfer charges, RCI clarified that the end-user transfer fee was not a termination fee levied on the ISP that lost an end-user provisioned over TPIA service. RCI explained that the fee was paid by the ISP that would be providing service to the end-user on a going-forward basis. RCI noted that this treatment was pursuant to Decision 2004-69 in which the Commission stated that where no cable company technician was required to visit the end-customer to activate the ISP service, the ISP was to pay only the Customer Transfer to Another ISP charge to connect the end-customer.

**Commission's analysis and determinations**

230. In light of the above clarification submitted by RCI, the Commission considers that the service transfer fee concern raised by Primus has been satisfactorily addressed.

231. The Commission notes that in this proceeding, Primus requested that there be alternative payment options with respect to the per-end-user TPIA standard service connection charges.

232. The Commission notes that the issue of the lack of alternative payment options in some cable carriers' tariffs raised by Primus in this proceeding has also been raised by several interveners in the proceedings associated with the ILECs' competitor ADSL services. The Commission further notes that one of the challenges faced by competitors is the overall cost of providing service to its retail customers.

233. In light of the above, the Commission considers it desirable to include the option of paying the per-end-user standard service connection charge in smaller monthly instalments for the TPIA service since this would lower a competitor's upfront costs associated with providing service to its retail customers.

234. Accordingly, the Commission directs each cable carrier to show cause, within 30 days of the date of this Decision, why it should not file for approval proposed tariff pages for alternative payment options for the per-end-user standard service connection charge. In the alternative, it can file for approval within 30 days of the date of this Decision, proposed revised tariff pages that include alternative payment options.

### 6) Volume usage or quota charges

***a) Treatment of end-users for excessive usage***

**Positions of parties**

235. Cybersurf proposed that the cable carriers insert a statement in their TPIA tariffs indicating that an ISP's end-users would not be treated any differently than cable carrier's end-users with regard to the volume caps applied and method of enforcement.

236. The cable carriers submitted that they provided equivalent treatment with respect to excessive usage to both TPIA service end-users and their own retail Internet access service end-users.

237. RCI submitted that although it did not currently apply additional usage charges to its retail end-users nor had it ever applied volume threshold charges to its TPIA customers, its TPIA tariff did include an additional volume charge but only to comply with the Commission directive in the proceeding leading to Order 2000-789. RCI proposed to withdraw the references to volume threshold levels and associated rates in its tariff and replace them with wording reflecting the current treatment of RCI's retail HSI customers.

238. Xittel requested that the Commission deny the cable carriers' proposal to maintain excessive usage charges because the cable carriers used these charges to discriminate against their TPIA end-users. Xittel submitted that it was not suggesting that the cable carriers would not be able to recover the costs associated with excessive usage of the access network, but rather that a cable carrier should not be put in a position in which it had effective control over how each TPIA user of an ISP used the Internet.

239. In its reply comments, Shaw submitted that it did not currently charge its own retail Internet customers or TPIA end-users for volume overages. Shaw indicated that its practice was to terminate the service to those end-users who exceeded the bandwidth limits. In Shaw's view, this was the only way to maintain proportional use of the network for all end-users. Shaw submitted that it would not object to adding a statement to this effect in its TPIA tariff. Videotron pointed out that its tariff already contained such a statement.

240. Cogeco replied that Cybersurf's proposal was unnecessary since the cable carriers had the duty to not discriminate between their end-users and the TPIA's end-users. Cogeco also submitted that the Commission had the power under section 27 of the Act to resolve any dispute in this regard.

241. In regard to Xittel's comments, the cable carriers submitted that they applied the same volume usage restrictions to their own users. Cogeco submitted that it started imposing usage restrictions almost as soon as it launched its HSI service, well in advance of offering a TPIA service.

242. Cogeco also submitted that Xittel ignored the primary and essential function of restrictions on Internet use. Cogeco and Videotron submitted that meaningful, non-discriminatory excess usage charges were necessary to maintain the integrity of the cable carriers' networks.

243. Cogeco further submitted that the thresholds and the additional usage charge applicable to the TPIA service and Cogeco's retail HSI service must be identical in order to discourage abuse and to maintain fair and proportionate usage for all users.

244. Cogeco was of the view that more generous thresholds for the TPIA service would cause the TPIA Q of S to be different across ISPs. Cogeco explained that high-consuming bandwidth end-users of some ISPs could exploit the more generous thresholds and other ISPs' end-users could experience the resulting traffic degradation.

245. In addition, Cogeco submitted that, in this shared environment, more generous TPIA thresholds would degrade the Q of S for Cogeco's retail high-speed customers. In Cogeco's view, the impact of more generous thresholds would raise serious issues of competitive inequity and discrimination, and possibly even undermine the ability of Cogeco to market and sell its retail high-speed services.

246. Cogeco noted that other TPIA customers/competitors, including Cybersurf, did not oppose the use of volume usage charges provided that their customers were not treated any differently from the cable carriers' customers.

**Commission's analysis and determinations**

247. The Commission notes that the nature of the treatment of end-users for excessive usage differed across the cable carriers. RCI and Shaw did not apply a volume usage charge although volume usage thresholds and associated volume usage charges were included in their tariffs. RCI requested that it be allowed to remove the volume usage charge from its tariff.

248. The Commission considers it appropriate that each cable carrier be provided the ability to manage the potential negative outcome of high-consuming bandwidth end-users in a manner that does not degrade the Q of S to all end-users, whether it is the cable carrier's end-user or the competitor's end-user. The Commission considers, however, that regardless of the approach adopted by the cable carriers to address this problem, such an approach must provide equivalent treatment with respect to excessive usage to both its own retail Internet access service end-users and TPIA end-users. The Commission further considers it appropriate that each cable carrier in this proceeding include a statement in its TPIA tariff to reflect this equivalent treatment. Accordingly, the Commission directs Cogeco, RCI, and Shaw to include a statement of equivalent treatment of both retail Internet access service end-users and TPIA end-users in their TPIA tariff pages.

249. With respect to the different treatment by cable carrier of end-users for excessive usage, the Commission considers that, subject to the requirement for equivalent treatment specified above, each cable carrier is permitted to implement its own approach. With respect to RCI's request to remove the volume usage charge from its TPIA tariff, the Commission considers that it is appropriate to do so. The Commission further considers that all cable carriers should be required to describe their treatment of end-users that are identified as excessive users.

Accordingly, the Commission directs each cable carrier to include in its TPIA tariff pages a description of its treatment of end-users that have been identified as excessive users. Also, the Commission directs that if and when a cable carrier introduces changes to its retail quota charges or related excessive usage criteria, it should issue at the same time revised TPIA tariff pages that match these changes.

***b) Non-branded tool to check usage***

**Positions of parties**

250. Cybersurf proposed that cable carriers provide a neutral non-branded tool which end-users, subject to volume caps, may use to check their usage, wherever such an equivalent branded tool was provided by the cable carrier to its own end-users. Cybersurf submitted end-users could use such a tool to prevent or resolve billing disputes stemming from volume cap charges or other means of enforcing such caps. Cybersurf also submitted that non-branding of the requested tool was required to prevent it from being a marketing opportunity for the cable carrier.

251. RCI replied that this was a reasonable request, but that the costs of development of this non-branded usage tool would be incremental to the costs included in the current studies.

252. Cogeco submitted that a branded tool for its own customers relied upon ancillary services customer data for security so customers can be authenticated. Cogeco also submitted that the tracking of bandwidth usage was an activity that was easily handled by the TPIA ISP implementing some form of bandwidth usage accounting at the gateway. In Cogeco's view, the decision to implement a non-branded usage tool belonged to each TPIA ISP and cable carrier, and that no evidence or reasons had been provided by Cybersurf warranting that such a measure should be mandated.

253. Shaw submitted that any development costs for a non-branded end-user usage tool would be incremental to the costs included in the TPIA studies. Shaw added that popular usage monitoring tools were readily available on the Internet to Cybersurf and Cybersurf end-users.

254. Videotron replied that this was a reasonable request but expressed concern regarding the amount of effort required to render its end-user usage measurement tool as non-branded. Videotron also submitted that, in its case, the tool had been stripped of all references to Videotron and its services, yet must nevertheless be accessed at a web address on the videotron.com domain. Videotron further submitted that the investment required to transfer the tool to a neutral domain would, in its view, be excessive given the current demand for TPIA services. Nevertheless, it was willing to continue its constructive dialogue with Cybersurf on this matter.

**Commission's analysis and determinations**

255. In light of the availability of usage monitoring tools on the Internet and the incremental costs to the cable carriers for development of a neutral non-branded tool, the Commission considers that ISPs should explore alternative approaches for monitoring the bandwidth usage of their TPIA end-users. Accordingly, the Commission considers that Cybersurf's proposal to have the cable carriers provide a neutral non-branded tool for checking usage to ISPs with TPIA end-users is not appropriate.

*c) Proposal for an alternative charging structure*

**Positions of parties**

256. Xittel proposed that the base pricing for the TPIA service be revised so that the monthly rate base would recover the cost of the average consumption of all users of the HFC system, including the total of retail plus wholesale demand for all transmission speeds.

257. Xittel submitted that, with the application of an average rate, each ISP would be responsible for the joint consumption of all of its end-users and that the charges to the ISP would reflect the actual incremental costs generated by the ISP's specific client pool. Xittel also submitted that the ISPs would not have their ability to compete restricted if an incumbent cable carrier decided that its Internet access services could not compete with its video-on-demand services.

258. Xittel also submitted that the use of monthly quotas for limiting usage was not in the public interest, and that the use of daily quotas was more appropriate. Xittel submitted that although monthly quotas might be appropriate for controlling the costs of Internet bandwidth, monthly quotas were completely ineffective in eliminating significant congestion during peak times.

259. In regard to daily quotas, Cogeco replied that the cable carriers were constantly looking for ways to reduce restrictions on the use of their Internet service, while at the same time ensuring that they maintained the integrity of their network for all end-users. Cogeco submitted that the decision to use monthly rather than daily quotas was an operational decision made by each cable carrier.

**Commission's analysis and determinations**

260. The Commission notes Xittel's proposal for an alternative charging structure for the TPIA service consisting of two rate elements. Under this proposal, the first component would consist of a base monthly charge per end-user based on the average total usage of all end-users at all transmission speeds. The second component would consist of a variable volume-based charge determined from the total daily volume of an ISP's end-users that exceeds an appropriate threshold where the volume-based charges would be determined on a per-segment basis rather than on an overall network basis.

261. The Commission notes that cable carriers have developed a range of Internet access services with different speeds to address specific end-user markets. The Commission further notes that the network resources required to support each Internet access service depend on the speed of the service. The cable carriers have demonstrated that more network resources are required to support their higher speed Internet access services than their lower speed Internet access services, and that as a result, the higher speed services have greater underlying costs.

262. The Commission notes that TPIA services correspond to retail Internet access services, and make use of network resources in a similar way as retail Internet access services. Accordingly, the costs for the different TPIA service speeds differ significantly, as demonstrated by the cable carriers' cost studies in this proceeding. The Commission considers it appropriate that the cable carriers recover the underlying costs for each of the TPIA service speeds that they currently offer. Consequently, the Commission considers that a single average rate across

all TPIA service speeds as proposed by Xittel would not be appropriate. Accordingly, the Commission denies Xittel's request for a rate structure that includes a monthly charge based on usage of all end-users at all speeds.

263. The Commission considers that Xittel's request to have the cable carriers develop and implement daily volume measures and charges that are determined on a per-segment basis, represents a significant change to the current TPIA rate structure, which has not been tested and is beyond the scope of this proceeding. Accordingly the Commission denies Xittel's request to modify the existing TPIA rate structure for excess volume usage. With respect to the proposed daily volume charge, the Commission notes that some cable carriers have used a monthly volume charge to ensure fair and appropriate usage of shared network resources for both their retail Internet access end-users and TPIA end-users. Other carriers have used per-end user monthly volumes as thresholds to activate controls on end-users that are excessive users of network resources. The Commission considers that the cable carriers have developed satisfactory operational approaches for ensuring fair usage of their networks for both retail and TPIA end-users.

Secretary General