Canadian Radio-television and Telecommunications Commission
Conseil de la radiodiffusion et des télécommunications canadiennes

# Telecom Regulatory Policy CRTC 2011-704

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## Billing practices for wholesale business high-speed access services

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*In this decision, the Commission approves revised rates for the wholesale business high-speed access services of Bell Aliant in its Atlantic Canada territory, the Bell companies, and TCC, as of the date of this decision.*

*The Commission has decided that the flat rate tariff structure for wholesale business high-speed access services remains appropriate. The Commission has also decided that rates for these services should be based on the incumbent local exchange carriers' (ILECs) incremental costs of providing the services plus an appropriate markup.*

*In Telecom Order 2011-377, the Commission established interim rates for wholesale high-speed access services at a specific discount relative to the rates for the ILECs' retail services. In this decision, the Commission has decided that final rates will not be applied retroactively.*

### Background

1. Retail Internet services were first provided in Canada in the 1990s through dial-up technology, and then later through high-speed connections. In 1998/1999, the Commission decided that the retail Internet market was sufficiently competitive to offer consumers choices and competitive prices. Consequently, it decided not to regulate retail Internet services.[1]

2. However, to foster competition, the Commission regulates wholesale access services offered by network providers. These are the large telephone companies, known as the large incumbent local exchange carriers (ILECs), and the cable carriers. The independent service providers use these services to provide their own retail Internet and other services.

3. Services provided by the independent service providers bring pricing discipline, innovation, and consumer choice to the retail Internet service market. According to

[1] The Commission refrained from regulating the rates, terms, and conditions under which retail Internet services are provided to the public, but maintained its powers to regulate other aspects of the service. See, for example, Telecom Decision 98-9 and Telecom Order 99-592.

the Commission's most recent monitoring report,[2] the network providers have 75 percent of the business retail Internet market in Canada and the independent service providers have 25 percent of that market. For the Commission, it has been important to ensure that retail Internet service competition is sufficient to protect consumers' interests.

4. Therefore, the Commission ensures that the speeds at which the network providers provide wholesale access services to the independent service providers enable them to compete in the retail market. The Commission also ensures that the network providers are encouraged to continue to invest in new network infrastructure and to offer new services. In December 2009, the Governor in Council[3] referred Telecom Decision 2008-117 and Telecom Order 2009-111 back to the Commission. Those decisions had required that the ILECs offer independent service providers wholesale access at higher speeds.

5. In August 2010, the Commission considered the Governor in Council's directive and concluded, in Telecom Regulatory Policy 2010-632 (the high-speed access decision), that the network providers must offer the independent service providers wholesale access to and use of speeds that match all speed options the network providers offer their own retail Internet service customers.

6. The speed at which wholesale high-speed access service is to be delivered is one critical element of the service. The others are the manner in which the service delivered is to be measured and the price to be paid for the service.

## The proceeding

7. In response to the Commission's decisions in the proceeding to examine wholesale high-speed access services,[4] Bell Aliant Regional Communications, Limited Partnership (Bell Aliant)[5] and Bell Canada (collectively, the Bell companies), as well as Bell Aliant in its Atlantic Canada territory only (Bell Aliant in Atlantic Canada), filed tariff notices to modify their wholesale business high-speed access services to introduce new fibre-to-the-node (FTTN)-based service speeds[6] for their business services. TELUS Communications Company (TCC) filed tariff notices to introduce its wholesale business FTTN-based high-speed access services. Interim rates for new business high-speed access services offered by the Bell companies, Bell Aliant in Atlantic Canada, and TCC (collectively referred to in this decision as

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[2] *CRTC Communications Monitoring Report*, July 2011

[3] See Order in Council 2009-2007.

[4] See Telecom Regulatory Policy 2010-632.

[5] Bell Aliant in its Ontario and Quebec territories only

[6] The ILECs' new wholesale high-speed access services are offered using FTTN technology, which upgrades the access network by extending fibre facilities closer to the customer premises in order to provide increasingly higher-speed access services. The high-speed access services provided over FTTN technology are referred to as FTTN-based services.

the ILECs) were set in Telecom Order 2011-377. No cable carrier filed separate tariff notices for wholesale business high-speed access services.[7]

8. Parties that participated in this proceeding included Bell Aliant in Atlantic Canada, the Bell companies, MTS Allstream Inc. (MTS Allstream), Saskatchewan Telecommunications (SaskTel), TCC, and the independent service providers and their associations.

9. The public record of this proceeding, which closed on 29 July 2011, is available on the Commission's website at www.crtc.gc.ca under "Public Proceedings" or by using the file numbers provided at the beginning of this decision.

## Issues

10. The Commission has identified the following major issues to be addressed in this decision:

    I. Appropriate tariff structure

    II. Rate principles to be applied to the business services tariffs

    III. Reasonableness of the costs submitted by the ILECs

    IV. Other matters

    V. Wholesale rates

    VI. Retroactive application, if any, of the rates

    VII. Implementation

    VIII. Compliance with the Policy Direction[8]

## I. Appropriate tariff structure

11. Bell Aliant in Atlantic Canada and the Bell companies proposed to introduce their wholesale business high-speed access services using their existing flat rate tariff structure, which is comprised of a single monthly rate per retail customer by speed tier,[9] with no additional usage charges. TCC proposed to introduce its wholesale business high-speed access services using a similar flat rate tariff structure.

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[7] Saskatchewan Telecommunications (SaskTel), MTS Allstream Inc. (MTS Allstream), and the cable carriers do not distinguish between residential and business high-speed access services; they provide businesses with high-speed access services according to a single high-speed access service tariff. In a separate proceeding, the Commission has approved wholesale high-speed access services for SaskTel, MTS Allstream, and the ILECs and cable carriers that filed tariffs in that proceeding. The Commission's decisions regarding these services are set out in Telecom Regulatory Policy 2011-703, also issued today.

[8] *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, P.C. 2006-1534, 14 December 2006

[9] High-speed access services are available with different maximum download speeds (e.g. 5, 10, or 16 megabits per second (Mbps)). Each separate speed offering is referred to as a speed tier.

12. The Canadian Network Operators Consortium Inc. (CNOC), Primus Telecommunications Canada Inc. (Primus), and MTS Allstream each submitted that the flat rate tariff structure should be changed to a tariff structure that separates rates into two different components: a monthly rate for access to the network, similar to that charged under the existing flat rate model,[10] and a separate rate for usage. They each submitted that their proposed tariff structure would allow independent service providers to wholly manage their traffic, the impact they have on the network, and their retail service offerings. In addition, they submitted that implementing such a structure would create efficiencies, as independent service providers would be able to use the same traffic management practices and processes for their business services as they use for their residential services, and ILECs would not have to maintain separate billing, interconnection, and rate structures for wholesale residential and business services.

13. CNOC, supported by Primus, submitted that the usage rate should be based on a 95$^{th}$ percentile model. This model measures the independent service provider's traffic that passes through a specific network point in a month.[11] MTS Allstream submitted that its tariff structure[12] be used for both wholesale residential and business high-speed access services.

### *Commission's analysis and decisions*

14. In Telecom Regulatory Policy 2011-703, the Commission examined the appropriate tariff structure for wholesale residential high-speed access services. In that decision, the Commission determined that there are two acceptable tariff structures: a capacity-based tariff structure that reflects a modified version of the proposal that MTS Allstream submitted in this proceeding and the flat rate tariff structure proposed by the ILECs in this proceeding.

15. The Commission also notes that in Telecom Regulatory Policy 2011-703, it set rates for wholesale residential high-speed access services based on the tariff structure submitted by the network providers. Rates for network providers that requested a flat rate tariff structure were based on that flat rate structure, while rates for network providers that requested separate access and usage rates were based on the capacity model. However, in that decision, the Commission indicated that network providers may file an application if they would like to modify their

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[10] Under the proposed model, the access rate would not include all the cost elements that are included under the flat rate model, and would therefore be lower than the flat rate model rate.

[11] CNOC proposed that the traffic be measured at the interconnection point between the network provider and the independent service provider. Further, it proposed that the 95$^{th}$ percentile approach be used to determine usage for billing purposes. With this approach, traffic is measured at regular intervals at the interconnection point on an ongoing basis during the month. The highest 5 percent of measurements are discarded as outliers and the next highest measurement is used for billing purposes.

[12] Under MTS Allstream's tariff structure, usage would be charged based on capacity, expressed in Mbps. Independent service providers would be responsible for predetermining the amount of capacity they require (in specified amounts of 100, 400, or 1,000 Mbps), and they would be unable to exceed this capacity until they purchase more.

wholesale residential high-speed access tariffs to reflect the alternative billing model.

16. Although each of the ILECs that participated in this proceeding only submitted rates based on the flat rate model, CNOC and MTS Allstream requested, in their final written comments, that the Commission mandate the ILECs to structure their business tariffs using a capacity-based model. The Commission has considered this request.

17. The Commission notes that, according to its most recent monitoring report,[13] independent service providers have been successful in capturing a 25 percent market share of the $1.1 billion retail business Internet market. Further, the Commission notes that, in contrast to wholesale residential high-speed access service, the usage component of wholesale business high-speed access service is relatively small compared to the overall costs for the service. In light of this, the Commission considers that there would be limited benefits to introducing a new tariff structure that separates access and usage.

18. Accordingly, the Commission does not consider it necessary at this time to mandate a tariff structure for wholesale business high-speed access services that separates access and usage.

19. In light of the above, the Commission decides that maintaining the flat rate tariff structure for wholesale business high-speed access services remains appropriate and fulfills the policy objectives of the *Telecommunications Act* (the Act) and the Policy Direction by interfering minimally with the operation of competitive market forces.

## II. Rate principles to be applied to the business services tariffs

20. The Bell companies submitted that rates should be based on costs plus a markup[14] that is just and reasonable in the context of the business market.

21. TCC submitted that wholesale business high-speed access services should have higher rates than residential services, based on the higher value of service for business services. TCC argued that independent service providers recognize this higher value of service; most of them charge higher retail rates for business Internet services than for residential Internet services.

22. In general, the independent service providers and MTS Allstream were opposed to value-of-service pricing and submitted that rates for wholesale business high-speed access services should be based on the same costing and pricing principles as rates for wholesale residential high-speed access services. They also submitted that value-of-service pricing would inappropriately apply a retail construct to wholesale

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13 *CRTC Communications Monitoring Report*, July 2011

14 Markup is the amount that is added to the Commission-approved costs to set the cost-based rate for a service. This difference between the rate and the Commission-approved costs serves as a contribution towards the company's fixed and common costs and a profit margin.

pricing and would be anti-competitive, as it would allow the ILECs to determine the independent service providers' retail value proposition.

23. CNOC stated that because there are insufficient wholesale alternatives to the access and interface components of high-speed access services, the 15 percent markup that applies to conditional essential services should be applied to these components. However, TCC argued that reducing the markup would be contrary to the Commission's determinations in Telecom Decision 2008-17, as it would effectively change the classification of the service.

24. The British Columbia Broadband Association (BCBA) submitted that business services represent the largest opportunity for independent service providers to add value to their products and that the margins on business services are the main source of profits for independent service providers. The BCBA further submitted that removal of this margin would result in the rapid collapse of many of the independent service providers that are operating today.

### *Commission's analysis and decisions*

25. The Commission notes that wholesale business high-speed access services are classified as conditional mandated non-essential services.[15] As they are mandated and are required by the independent service providers to compete in the retail Internet services market, the Commission considers that rates should be based on costs plus an appropriate markup.

26. However, the Commission considers that CNOC's request for a 15 percent markup on certain components is inconsistent with this conditional mandated non-essential classification. The Commission is not prepared to alter this classification.

27. In setting rates, the Commission balances the need to ensure that the ILECs are reasonably compensated for their costs with the need to ensure that markups are not so high as to significantly impede independent service providers from providing competitive alternatives in the marketplace.

28. The Commission notes that, compared to retail residential Internet services, retail business Internet services typically include a number of additional features, such as multiple addresses, business websites, customized email addresses, and technical support, and are typically priced higher for comparable speeds.

29. The Commission further notes that where wholesale business and residential high-speed access services have been provided separately by the ILEC, the rates for wholesale business services have generally been set using a higher markup compared to residential service.

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[15] Services in the wholesale conditional mandated non-essential services category are those the Commission has decided, in Telecom Decision 2008-17, do not meet the criteria for essential services but must continue to be mandated until market conditions, at a point in the future, have changed such that the reasons for mandating the services are no longer present.

30. The Commission considers that the existing approach to setting rates for wholesale business high-speed access services has not hindered the independent service providers' growth, as there is competition in the business Internet market and independent service providers currently have a 25 percent market share of the $1.1 billion retail business Internet market.

31. Accordingly, contrary to CNOC's position that markups for business and residential wholesale high-speed access services should be the same, the Commission considers that it is appropriate to continue to apply a higher markup to wholesale business high-speed access services.

32. However, the Commission notes that the markups proposed by the ILECs varied widely. The Commission considers that, in accordance with the objective of competitive neutrality, it is appropriate that markups be comparable for all ILECs. Accordingly, the Commission has applied comparable markups for all the proposed wholesale business services, with the exception of the Bell companies' High-Speed Access Service − Fibre to the Node (HSA-FTTN) service.

33. The Commission notes that the HSA-FTTN service provides a higher quality of service than the other wholesale business high-speed access services. The Commission therefore considers it appropriate to apply a higher markup for HSA-FTTN to recognize this additional quality of service.

## III. Reasonableness of the costs submitted by the ILECs

34. In this section, the Commission examines the various issues associated with the Phase II cost studies[16] filed in support of the proposed FTTN-based service rates. These cost studies support the proposed monthly access rates as well as the proposed service charges.

35. The Commission has carefully reviewed the costing methodology and assumptions in each ILEC's cost estimates and has made a number of adjustments. This section describes the various cost adjustments, which are addressed below in two subsections: i) Costing issues common to all ILECs; and ii) Other ILEC-specific costing issues. In addition, costing issues pertaining to the cost studies filed in support of service charges are addressed in subsection iii) ILEC-specific service charge costing issues.

36. Interveners raised other issues related to cost adjustments. The Commission has carefully examined these issues and has decided that no further adjustments are required.

[16] Phase II costs reflect the costs of the prospective incremental resources used to provide the service, consistent with the costing methodologies and assumptions set out in the ILECs' approved regulatory economic study manuals.

### i) Costing issues common to all ILECs

#### *a) Study period*[17]

37. Bell Aliant in Atlantic Canada and the Bell companies proposed a five-year study period. TCC proposed a three-year study period.

38. Primus recommended a ten-year study period, as it accurately reflects the service lives of the assets used to support wholesale FTTN-based services. The company submitted that a shorter study period would not allow service demand to fully develop, resulting in overestimated costs.

39. The ILECs were opposed to the use of a ten-year study period. They generally submitted that a cost study based on a ten-year study period would not yield realistic results, since it is not feasible to develop any meaningful forecast of demand, usage, technologies, and costs for the next ten years for services that do not exist and for services that will be influenced to a great degree by the rapid evolution of technology in the marketplace.

*Commission's analysis and decisions*

40. The Commission notes that the ILECs' economic study manuals state that the study period adopted for a service should capture the impact associated with the service's major cash flows, including any associated start-up costs. The Commission considers that a shorter study period would not permit the significant start-up costs for the service (e.g. FTTN start-up costs[18]) to be spread over an appropriate life for these costs. The Commission further considers that a longer study period of ten years would reflect potential reductions in capital unit costs that may occur over the years due to technological advancements and increases in network usage.

41. The Commission notes that using a ten-year study period for wholesale business high-speed access services would result in costs for services estimated over a time frame that would be the same as the study period applied for the ILECs' wholesale residential high-speed access services in Telecom Regulatory Policy 2011-703. Accordingly, the Commission has adjusted the costs associated with the ILECs' cost studies to reflect a ten-year study period.

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[17] The study period is the period of time over which revenue and cost cash flows caused by providing the service to the independent service provider are assessed. The study period need only be as long as necessary to ensure that all the significant causal cash flows are reflected in the study. Typically, the study period of a regulatory economic study is between three and ten years.

[18] FTTN start-up costs consist of costs for FTTN development and for network conditioning. FTTN development costs encompass Digital Subscriber Line Access Multiplexer (DSLAM) hardware and software upgrades to accommodate customer-based growth and/or to standardize technology. A DSLAM is a network device which connects multiple customer interfaces to a high-speed digital communications channel using multiplexing techniques. Network conditioning costs include costs for the review and testing of the copper loop, as well as costs for the removal of bridge taps and loading coils.

### *b) Traffic growth*

42. The ILECs based their usage cost studies on assumed peak traffic levels. They submitted that these levels were forecast based on historical data, trends, consumer demand, and the companies' best estimates of future traffic requirements.

43. All parties to the proceeding agreed that the Internet service market will continue to experience strong growth.

*Commission's analysis and decisions*

44. The Commission generally concurs with the approach taken by the ILECs in estimating peak traffic levels at the beginning of their cost studies.

45. The Commission notes that the traffic growth rates of the independent service providers' retail customers that were forecast over the study period varied by ILEC. The Commission notes that the Bell companies and TCC assumed a constant traffic growth rate per retail customer across all years of the study period, while Bell Aliant in Atlantic Canada assumed significant traffic growth per retail customer in the first year followed by a constant higher annual growth rate for the remainder of the study period.

46. The Commission considers that all service providers in the high-speed access market will be subject to similar conditions and similar traffic growth rates in the long term. Accordingly, consistent with the approach set out in Telecom Decision 2006-77 and Telecom Regulatory Policy 2011-703, for the ILECs, the Commission has applied two years of traffic growth rates per retail customer consistent with historical levels, followed by a constant growth rate of 20 percent for each of the remaining years of the study period.

### *c) Annual capital unit cost changes*

47. Capital costs relate to the equipment required to provide wholesale high-speed access service. In this proceeding, there are two types of capital costs included in the proposed cost studies: access-driven capital costs[19] and usage-driven capital costs.[20]

48. CNOC submitted that one would expect a substantial increase in the capacity of equipment over time, leading to a substantial reduction in capital unit costs.

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[19] Equipment such as the ILECs' DSLAM is access-driven. For this type of equipment, capacity is apportioned to retail customers and expressed as number of accesses.

[20] Equipment such as switches and routers that make up the aggregation transport network is usage-driven. For this type of equipment, the capacity is expressed as an amount of peak traffic usage (Kbps or Mbps).

49. Bell Aliant in Atlantic Canada and the Bell companies submitted that the capital increase factors (CIFs)[21] used in their cost studies are asset-specific, are supported by thorough studies, and are the values that were filed with the Commission.

*Commission's analysis and decisions*

50. The Commission notes that the ILECs' capital unit costs have decreased on average over the last four years by an amount that is significantly greater than the annual capital unit cost changes proposed in their cost studies.[22]

51. The Commission considers that the historical changes in Internet-related capital unit costs demonstrate the suppliers' ability to meet rising demand by increasing equipment capacity at a lower cost per unit due to technological advancements. The Commission also considers that, due to the rapid growth in Internet traffic and Internet applications, suppliers will further increase equipment capacity to meet increasing traffic demand, leading to further significant reductions in capital unit costs over time.

52. The Commission notes that the ILECs' proposed CIFs, which reflect corporate average unit cost changes for general classes of assets, are in line with the approved filing process set out in their regulatory economic study manuals. However, this does not preclude the use of service-specific capital unit cost changes that are deemed more appropriate.

53. In light of the above, the Commission considers that, for all ILECs, annual capital unit cost changes of minus 5 percent for access-driven equipment and minus 10 percent for usage-driven equipment provide reasonable estimates of the impact of expected equipment capacity increases and unit cost reductions over the study period. The Commission has therefore applied these figures.[23]

***d) Study start date***

54. The Commission notes that the ILECs proposed a study period beginning on 1 January 2011 or earlier. Consistent with the annual capital unit cost changes section above, the Commission has re-estimated the monthly service costs provided by these companies by applying unit cost changes to reflect a study start date of 1 July 2011, in line with the month the service was effective on an interim basis.

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[21] CIFs are forecasts of year-over-year price level changes for capital equipment.

[22] Capital unit cost changes in ILECs' cost studies reflect CIFs net of productivity increase factors.

[23] Annual capital unit cost changes are applied to the capital in a cumulative manner. For example, with a capital unit cost change of 10 percent, a capital cost in the first year will be restated in the second year by applying a factor of (1 - 0.1), or 0.9, and further restated in the next year by applying a cumulative factor of (0.9 x 0.9), or 0.81.

### *e) Digital Subscriber Line Access Multiplexer (DSLAM) labour*

55. The FTTN DSLAM costs proposed by the ILECs are comprised of two components: equipment and labour.

56. The labour component of the proposed FTTN DSLAM costs varied significantly across ILECs. For example, Bell Aliant in Atlantic Canada and the Bell companies proposed significantly higher labour components than TCC proposed. Furthermore, in the case of the Bell companies, the labour component of their proposed FTTN DSLAM costs was significantly higher than the labour component of the non-FTTN DSLAM costs they proposed in the proceeding leading to Telecom Decision 2010-255.

57. The Bell companies submitted that their FTTN DSLAMs have a much smaller capacity than their non-FTTN DSLAMs, thus supporting higher labour costs per access.

*Commission's analysis and decisions*

58. The Commission notes that a significant portion of the FTTN DSLAM labour costs is based on estimates from subject matter experts. The Commission also notes that FTTN DSLAM capacities are similar for all ILECs. The Commission considers that the FTTN DSLAM labour costs proposed by Bell Aliant in Atlantic Canada and the Bell companies are too high compared to those proposed by TCC. The Commission notes that there is no evidence on the record justifying the higher costs.

59. In light of the above, for Bell Aliant in Atlantic Canada and the Bell companies, the Commission has capped the labour component at 40 percent of the total FTTN DSLAM costs.

60. The Commission notes that DSLAM labour costs comprise costs for various engineering and installation activities, including a number of civil work activities such as building copper cable splices, trenching, site excavation, concrete pad construction, electrical power installation, and inspection. The Commission notes that Bell Aliant in Atlantic Canada's and the Bell companies' proposed civil work activities were assumed to have the same life estimate as that of the DSLAM equipment itself, which is shorter than the 18-year life estimate assumed by MTS Allstream for similar activities.

61. The Commission considers that the useful life of activities associated with the civil work portion of DSLAM labour costs will exceed the life estimate of the DSLAM equipment and can be expected to be similar to the useful life of copper cable (18 years). Accordingly, the Commission considers it appropriate to adjust the civil work portion of Bell Aliant in Atlantic Canada's and the Bell companies' DSLAM labour costs to reflect a life estimate of 18 years.

### *f) Start-up costs related to FTTN development and network conditioning*

62. Bell Aliant in Atlantic Canada and the Bell companies proposed to include historical FTTN development costs in their wholesale business high-speed access cost studies. The Bell companies also proposed to include historical and forward-looking network conditioning costs.[24]

63. For the historical FTTN development costs, Bell Aliant in Atlantic Canada and the Bell companies submitted that inclusion of development costs that might otherwise have been considered sunk is consistent with previous Commission rulings with respect to the recovery of unrecovered costs causal to service.[25]

64. Primus submitted that FTTN development costs were not caused by the requirement to provide wholesale high-speed access services and should be excluded from the cost study.

65. With respect to network conditioning costs, CNOC and Primus submitted that these costs were incurred for the Bell companies' retail FTTN services and were not caused by the introduction of wholesale FTTN services. Primus submitted that the Bell companies are performing network conditioning on all lines in an entire area, thus permitting their retail customers who request services requiring high capacity to obtain these services immediately. Primus also submitted that the requirement for an FTTN network is driven primarily by the Bell companies' plan to offer Internet Protocol television (IPTV) service so that they can compete effectively against the cable carriers.

*Commission's analysis and decisions*

66. The Commission considers that Bell Aliant in Atlantic Canada's and the Bell companies' FTTN development costs are neither prospective nor a result of the offering of wholesale high-speed access services. Accordingly, the Commission has removed these costs from Bell Aliant in Atlantic Canada's and the Bell companies' cost studies.

67. With regard to network conditioning costs, the Commission notes that Bell Aliant in Atlantic Canada performs network conditioning activities individually for each retail customer who orders an FTTN-based service. The Commission therefore considers that the network conditioning costs attributed to Bell Aliant in Atlantic Canada's wholesale FTTN-based services are appropriate.

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[24] Under the Bell companies' proposal, a percentage of the network conditioning costs was attributed to the wholesale business high-speed access service.

[25] Costs causal to service are those costs incurred to support the introduction of a new wholesale service, such as the one-time costs for modifying a billing system to accommodate the new wholesale service. Unrecovered costs causal to service are past introduction costs that have not been fully recovered through previously approved rates.

68. The Commission notes that, in contrast with Bell Aliant in Atlantic Canada's practice, the Bell companies condition an entire distribution area where they intend to introduce retail broadband services, including IPTV. The Commission also notes that the Bell companies' network conditioning costs reflect a mix of costs incurred prior to July 2011 and costs expected to be incurred between July 2011 and the end of 2014.

69. The Commission considers that network conditioning costs incurred prior to July 2011 are neither prospective nor causal to the introduction of wholesale high-speed access services. With respect to the proposed network conditioning costs incurred between July 2011 and the end of 2014, the Commission considers that 50 percent of those costs should be removed to recognize that the Bell companies incur network conditioning activities to permit the simultaneous offering of retail Internet and IPTV services.

70. The Commission notes that the Bell companies proposed to assign a greater portion of their network conditioning costs to the wholesale higher-speed options than to the lower wholesale speed options. The Commission considers that the network conditioning costs attributed to wholesale high-speed access service should be distributed uniformly across all wholesale FTTN speed options, in light of the Bell companies' practice of provisioning network conditioning to all customers in the distribution area. The Commission has accordingly made further adjustments to the network conditioning costs.

#### ii) Other ILEC-specific costing issues

71. Additional adjustments made by the Commission to each ILEC's proposed monthly cost studies, along with the rationale for each adjustment, are provided in Table 1 of Appendix 3 to this decision.

#### iii) ILEC-specific service charge costing issues

72. The ILECs proposed service charge rates to recover the various one-time activity costs they incur to establish wholesale high-speed access services for an independent service provider's retail customer. They calculated the majority of the activity costs used to determine these rates by multiplying the time it takes to perform the activity (time estimate) by the labour unit cost for the ILEC employee performing the work, as well as the frequency of occurrence (occurrence rate). In some instances, however, the activity costs were calculated using actual expenditures or a vendor fee (e.g. Bell Technical Solutions[26] charges the Bell companies for fieldwork at remote sites).

73. The Commission notes that the ILECs have provided, in confidence, time estimates and occurrence rates for their service charge activities and corresponding labour unit costs. The Commission also notes that the proposed time estimates and occurrence rates for a given activity vary considerably across the ILECs. In the

[26] Bell Technical Solutions is a wholly owned subsidiary of Bell Canada Enterprises.

Commission's view, the discrepancies among the ILECs' estimates are greater than would reasonably be expected. The Commission notes that the proposed time estimates and occurrence rates were largely based on estimates from subject matter experts and were not supported by empirical evidence, such as measured data or time and motion studies.

74. Accordingly, as set out in Table 2 of Appendix 3 to this decision, the Commission has adjusted each ILEC's proposed time estimates and occurrence rates for service charge activities, and has provided its rationale.

## IV. Other matters

### Monthly equivalent payment option for the access service charge

75. Generally, the ILECs collect service charges through a one-time, upfront payment. However, some network providers also offer a payment plan for legacy services that allows independent service providers to pay monthly equivalent amounts over a set period of time.

76. CNOC requested that the Commission mandate the ILECs to offer a monthly payment plan for service charges related to the monthly access charges. CNOC submitted that high service charges constitute a significant barrier to entry and that, while payments should ensure that the ILECs can recover their costs in full, monthly payment plans would ensure that these service charges do not constrain demand.

77. The ILECs submitted that service charges should be recovered up front and that mandating a monthly payment plan would (a) require them to assume financial risk, particularly in situations where their costs would not be fully recovered – for example, if the service is installed for only a short period of time; (b) lead to an increase in the service charge rate to account for additional administrative and billing costs; and (c) be inconsistent with the Policy Direction requirement for the Commission to rely on market forces to the maximum extent possible.

#### *Commission's analysis and decisions*

78. The Commission considers that the one-time costs associated with these service charges represent a significant cost for the ILECs and that it is reasonable for the ILECs to require that these costs be recovered in a timely manner. The Commission concludes that it is inappropriate to require the ILECs to bear the financial risk in situations where the customer cancels service before the total service charge payments have been collected.

79. Therefore, the Commission denies CNOC's request to require the ILECs to implement a monthly payment plan for service charges related to monthly access charges.

### Contract term and volume commitment rates

80. TCC proposed rates based on minimum contract periods in addition to its monthly wholesale high-speed access rates. The other ILECs did not propose rates associated with contract terms or volume commitments.

81. CNOC submitted that rates associated with contract terms and volume commitments should be mandated for all wholesale high-speed access services. CNOC submitted that a service with contract terms and volume commitments reduces the risk and hence the cost of capital of the network provider, which should be reflected in a lower markup.

#### *Commission's analysis and decisions*

82. The Commission notes that the wholesale high-speed access rates established in this decision are based on Phase II costs plus a specified markup. Further, the Commission notes that no evidence was filed on the record of this proceeding to demonstrate that the Phase II costs would vary depending on contract length or volume commitment. The Commission therefore considers that there is no rationale to support CNOC's request to reduce the markup to offer lower rates for wholesale high-speed access services offered through contract terms or volume commitments.

83. The Commission notes that, consistent with its determinations in Telecom Regulatory Policy 2009-19, independent service providers have the ability to negotiate rates for contract terms and volume commitments with the ILECs.

84. Accordingly, the Commission denies CNOC's request that the ILECs be required to provide term and volume commitments for all wholesale high-speed access services.

### TCC amalgamation of speed offerings

85. In its tariff filing, TCC proposed, among other things, to combine its separate wholesale rates for legacy speeds of 1.5, 2.5, 3, 4, and 6 Mbps to create one rate for access speeds ranging from 1.5 Mbps to 6 Mbps,[27] consistent with its retail service offering.

86. TCC submitted that its proposed tariff revisions will simplify the current tariff by eliminating several outdated speed offerings and will recognize that the service is provided on a best-effort basis up to the maximum speed for each service option. TCC stated that for retail customers with a current speed profile of lower than 6 Mbps, that profile will be maintained until TCC receives a customer request to migrate to the maximum speed available. TCC also stated that a service charge will

[27] Over long distances, actual available speeds may be lower than 6 Mbps.

not be applied for moving a retail customer to a faster speed within the 1.5 to 6 Mbps range.

87. In general, the Peace Region Internet Society (PRiS) and the independent service providers submitted that the existing separate rates should be maintained. Certain independent service providers submitted that TCC's proposed rate structure would lead to an increase in the cost of access incurred by independent service providers offering Internet access service to retail customers whose high-speed access connections cannot support a speed greater than 3 Mbps. PRiS added that the proposed pricing scheme does nothing to encourage TCC to increase wholesale service speeds up to 6 Mbps.

### *Commission's analysis and decisions*

88. The Commission notes that TCC's proposal is consistent with the rate structure of its existing retail service offering, which provides for a range of access speeds from 1.5 Mbps to 6 Mbps at a fixed monthly rate.

89. The Commission has approved similar service offerings for MTS Allstream and SaskTel, which offer wholesale Internet services with access rates that cover a range of speeds up to a maximum.

90. In light of the above, the Commission decides that TCC's amalgamation proposal is acceptable.

## V. Wholesale rates

91. In light of its determinations above, the Commission finds that the wholesale business high-speed access service rates for each ILEC listed in the tables in Appendix 1 are just and reasonable. Accordingly the Commission **approves on a final basis** the monthly rates and service charges set out in Appendix 1.

92. The Commission notes that these approved monthly rates and service charges reflect the ILECs' cost estimates submitted in response to the Commission's interrogatories, as adjusted to reflect the costing determinations in this decision plus an appropriate markup.

## VI. Retroactive application, if any, of the rates

93. In Telecom Order 2011-377, the Commission established interim rates for wholesale high-speed access services at a specific discount from the network providers' retail rates. In that order, the Commission refrained from making a decision on whether the final rates would be set retroactively. Instead, the Commission noted the following:

> At this point in time, the Commission is of the view that, in its final decisions, it will likely make retroactive adjustments to the interim access rates as well as to the other fees and charges. The Commission will, however, make its

decision on any retroactive adjustments in light of the submissions of the parties.

94. The Bell companies submitted that final rates for their FTTN-based services must be made retroactive to the date of interim approval, but did not provide any specific reasons with respect to their wholesale business high-speed access services.

95. CNOC submitted that the Commission should not increase the interim rates for these services on a retroactive basis given how long independent service providers have had to wait for the ILECs' FTTN services and the resulting disadvantage they have faced during that period. CNOC further submitted that the interim rate structure, coupled with the uncertainty created by the possibility of adverse retroactive adjustments to rates, has not led to aggressive competition on the part of independent service providers that are using the Bell companies' new services.

96. Certain independent service providers submitted that they would be harmed by a retroactive application of higher rates, as they cannot re-bill retail customers, and would be affected if they had to increase future rates to recover any retroactive changes. Primus stated that the final rates established at the end of the process, whether higher or lower than the rates established on an interim basis, should not be applied retroactively.

### Commission's analysis and decisions

97. The Commission notes that the difference between the final rates established in this decision and the interim rates set out in Telecom Order 2011-377 varies depending on the network provider and the service speed offered, with some rates being higher and others lower. The Commission also notes that, due to the uncertainty of retroactive adjustments, some independent service providers submitted that either they did not plan to offer the new higher-speed services with interim rates or they were not aggressively promoting these new services. Accordingly, the Commission considers that any retroactive adjustments would likely be minimal when estimated per independent service provider.

98. In light of the above, the Commission decides that final rates will not be applied retroactively.

## VII. Implementation

99. The Commission **approves on a final basis** the tariff notices filed by Bell Aliant in Atlantic Canada, the Bell companies, and TCC (see Appendix 2), as modified by this decision, including the rates listed in Appendix 1, effective the date of this decision. The Commission directs each of these companies to issue, by **2 December 2011**, tariff pages that reflect this decision and the rates listed in Appendix 1.

## VIII. Compliance with the Policy Direction

100. The Policy Direction states that the Commission, in exercising its powers and performing its duties under the Act, shall implement the policy objectives set out in section 7 of the Act, in accordance with paragraphs 1(*a*), (*b*), and (*c*) of the Policy Direction.

101. The regulatory measures under consideration in this decision are of an economic nature and deal with network access regimes. Therefore, paragraph 1(*a*)[28] and subparagraphs 1(*b*)(i), (ii), and (iv)[29] of the Policy Direction apply to the Commission's decisions. Consistent with paragraph 1(*a*) of the Policy Direction, the Commission considers that market forces are functioning, as indicated by the success of the independent service providers in capturing a significant share of the business high-speed access market. In all cases where the Commission has imposed regulatory requirements on the incumbents, it has adopted measures that are efficient and proportionate to their purpose. In this regard, the Commission has approved a tariff structure that is consistent with how the ILECs currently offer wholesale business high-speed access services and thus can be implemented with minimal billing system changes.

102. Consistent with subparagraph 1(*b*)(i) of the Policy Direction, the Commission considers that the policy objectives set out in paragraphs 7(*a*), (*b*), (*c),* (*f*), and (*h*) of the Act are advanced by the regulatory measures established in this decision.[30] The Commission also considers that the objective in paragraph 7(*f*) of the Act – to foster increased reliance on market forces and ensure that regulation, where required, is

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[28] Paragraph 1(*a*) states that the Commission should (i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives, and (ii) when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives.

[29] Paragraph 1(*b*) states that the Commission, when relying on regulation, should use measures that satisfy the following criteria, namely, those that (i) specify the telecommunications policy objective that is advanced by those measures and demonstrate their compliance with this Order, (ii) if they are of an economic nature, neither deter economically efficient competitive entry into the market nor promote economically inefficient entry, and (iv) if they relate to network interconnection arrangements or regimes for access to networks, buildings, in-building wiring or support structures, ensure the technological and competitive neutrality of those arrangements or regimes, to the greatest extent possible, to enable competition from new technologies and not to artificially favour either Canadian carriers or resellers

[30] The cited policy objectives of the Act are

7(*a*) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions;
7(*b*) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;
7(c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;
7(*f*) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective; and
7(*h*) to respond to the economic and social requirements of users of telecommunications services.

efficient and effective – is of particular relevance. This decision ensures that the retail business Internet service market will remain competitive, thus allowing the delivery of high-quality services and responding to retail customers' economic and social requirements.

103. To ensure that competition in retail business high-speed access service markets remains sufficient to protect the interests of users as service speeds increase, the Commission has approved a tariff structure that enables independent service providers to design and price their retail services in the manner they find most appropriate for their retail customers. Consistent with its findings in the essential services decision (Telecom Decision 2008-17), the Commission considers that the provision of wholesale high-speed access services, according to the tariff structure and at the rates established in this decision, neither deters economically efficient competitive entry into retail Internet service markets nor promotes economically inefficient entry.

Secretary General

## Related documents

- *Billing practices for wholesale residential high-speed access services*, Telecom Regulatory Policy CRTC 2011-703, 15 November 2011
- *Interim rates for wholesale residential and business high-speed access services*, Telecom Order CRTC 2011-377, 15 June 2011
- *Wholesale high-speed access services proceeding*, Telecom Regulatory Policy CRTC 2010-632, 30 August 2010
- *Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Applications to introduce usage-based billing and other changes to Gateway Access Services*, Telecom Decision CRTC 2010-255, 6 May 2010
- *Cybersurf's application related to the implementation of Telecom Decision 2008-117 regarding the matching speed requirement*, Telecom Order CRTC 2009-111, 3 March 2009
- *Bell Canada et al.'s application to review and vary Telecom Decision 2008-17 with respect to negotiated agreements*, Telecom Regulatory Policy CRTC 2009-19, 19 January 2009
- *Cybersurf Corp.'s application related to matching service speed requirements for wholesale Internet services*, Telecom Decision CRTC 2008-117, 11 December 2008
- *Revised regulatory framework for wholesale services and definition of essential service*, Telecom Decision CRTC 2008-17, 3 March 2008

- *Forbearance from retail Internet services*, Telecom Order CRTC 99-592, 25 June 1999

- *Regulation under the Telecommunications Act of certain telecommunications services offered by "broadcast carriers"*, Telecom Decision CRTC 98-9, 9 July 1998

## Appendix 1

## Approved access rates[31] and service charges for wholesale business high-speed access services

### *Bell Aliant in Atlantic Canada*

**Access rates**

| Speed | Monthly access rate |
|---|---|
| 13 Mbps | $39.06 |

**Service charges**

| Company | Service charge |
|---|---|
| Bell Aliant in Atlantic Canada | $78.48 |

### *Bell companies*

**Access rates**

| Speed | Monthly access rate |
|---|---|
| 10 Mbps FTTN | $38.54 |
| 16 Mbps FTTN | $40.70 |
| 16 Mbps HSA-FTTN | $61.23 |

**Service charges**

| Service | Service charge |
|---|---|
| FTTN | $90.65 |
| HSA-FTTN | $227.76 |

[31] The access rate per individual business customer allows for the recovery of access costs with usage. "Speed" refers to the maximum speed available for individual business customers of independent service providers, as service speeds are provided on a best-effort basis.

*TCC Alberta and British Columbia*

**Access rates**

| Speed | Monthly access rate |
|---|---|
| 1.5 to 6 Mbps | $30.73 |
| 15 Mbps | $43.43 |

**Service charges**

| Company | Service charge |
|---|---|
| TCC Alberta and British Columbia | $70.56 |

*TCC Quebec*

**Access rates**

| Speed | Monthly access rate |
|---|---|
| 6 Mbps | $30.55 |

**Service charges**

| Company | Service charge |
|---|---|
| TCC Quebec | $70.56 |

**Appendix 2**

## Tariff applications

8740-B2-201017426 – Bell Canada Tariff Notices 7290, 7290A, 7290B, and 7290C

8740-B54-201017401 – Bell Aliant Regional Communications, Limited Partnership (Bell Aliant) Tariff Notices 345, 345A, 345B, and 345C

8740-T66-201011410 – TELUS Communications Company (TCC) Tariff Notices 391, 391A, and 391B

8740-T66-201107160 – TELUS Communications Company (TCC) Tariff Notice 408

8740-T69-201107045 – TELUS Communications Company (TCC) Tariff Notice 559

8740-A53-201017864 – Bell Aliant Regional Communications, Limited Partnership (Aliant Telecom) Tariff Notices 392 and 392A

**Appendix 3**

## Table 1: ILECs – Additional Cost Adjustments

| ILEC | Proposal | Commission adjustment | Rationale for adjustment |
|---|---|---|---|
| Bell companies | Usage cost study – assume the same GB-to-peak-traffic ratio for business and residential | Reduce business usage costs by one third | Business has proportionally less usage occurring during peak than residential has |
| TCC in Alberta, British Columbia, and Quebec | Access cost study – proposed service provision expenses exclude loop qualification; proposed advertising and sales management expenses exclude some product management activities | Transfer these activities from the proposed service charge cost study to the monthly access cost study | These costs are causal to the monthly access service |

## Table 2: ILECs' Service Charges – Additional Cost Adjustments

| ILEC | Proposal | Commission adjustment | Rationale for adjustment |
|---|---|---|---|
| Bell Aliant in Atlantic Canada | Access service charge – proposed costs for cross-connect work at remote and for customer premise work reflect a high occurrence rate based on subject matter experts (SMEs) | Reduce the occurrence rate by 40% for cross-connect work at remote and for customer premise work. The revised occurrence rate is based on the Bell companies' 2010 data as reduced to reflect increased FTTN rollout over the study period. | Adjustment to occurrence rates is needed to take account of orders for retail customer locations that already have FTTN and will not require these work activities |

| ILEC | Proposal | Commission adjustment | Rationale for adjustment |
|---|---|---|---|
| Bell Aliant in Atlantic Canada | Access service charge – proposed costs for customer premise work reflect time estimates based on SMEs | Reduce the time estimate for each activity associated with customer premise work by 50% | Refer to section III(iii), ILEC-specific service charge costing issues, above |
| Bell companies | Access service charge – for HSA-FTTN, proposed costs for field work at remote reflect time estimates based on SMEs | Reduce the time estimate by 17% | Refer to section III(iii), ILEC-specific service charge costing issues, above |
| Bell companies | Access service charge – for GAS-FTTN[32] and HSA-FTTN, proposed costs for jumper wire work reflect time estimates based on SMEs | Reduce the time estimates by 20% for GAS-FTTN and 33% for HSA-FTTN | Refer to section III(iii), ILEC-specific service charge costing issues, above |
| Bell companies | Access service charge – for HSA-FTTN, proposed costs for jumper wire work at central office (CO) reflect occurrence rate based on 2010 data; proposed costs for work at remote reflect occurrence rate based on SMEs | Reduce occurrence rate for jumper wire work at CO such that the combined occurrence rate for jumper wire work at CO and remote does not exceed 100% | Proposed cost estimate is significantly higher than that of other ILECs for the same work and is deemed unreasonable. Given that jumper wire work that is required occurs at either the CO or the remote, the combined occurrence rate for jumper wire work at CO and remote should not exceed 100%. |

[32] GAS-FTTN refers to Gateway Access Service – Fibre to the Node, which is the name the Bell companies use for their wholesale high-speed access service offered over FTTN facilities.

| ILEC | Proposal | Commission adjustment | Rationale for adjustment |
|---|---|---|---|
| Bell companies | Access service charge – for GAS-FTTN, proposed costs for cross-connect work at remote use a vendor fee charged by Bell Technical Solutions | Use time estimate and labour unit cost instead of vendor fee to develop cost | Proposed cost estimate is significantly higher than that of other ILECs for the same work and is deemed unreasonable. The revised cost is based on an approach used by other ILECs to estimate associated remote work costs. Further refer to section III(iii), ILEC-specific service charge costing issues, above. |
| Bell companies | Access service charge – for GAS-FTTN and HSA-FTTN, proposed costs for assignment work, jumper wire work, and customer premise work reflect a high occurrence rate based on SMEs; proposed costs for cross-connect work at remote reflect an occurrence rate based on 2010 data | Reduce the occurrence rate by 40% for most assignment work, jumper wire work, and customer premise work, and reduce occurrence rates for remote work by 15%. The revised occurrence rate is based on the Bell companies' 2010 data as reduced to reflect increased FTTN rollout over the study period. | Adjustment to occurrence rates is needed to take account of orders for retail customer locations that already have FTTN and will not require these work activities |

| ILEC | Proposal | Commission adjustment | Rationale for adjustment |
|---|---|---|---|
| Bell companies | Access service charge – proposed service providing costs for GAS-FTTN excludes costs for travel time to customer premises for orders that do not require Plain Old Telephone Service (POTS) splitter work | Include travel time costs for the percentage of new orders that do not require POTS splitter work | For new orders requiring POTS splitter work, the associated travel time cost is recovered through the monthly rate. For the remaining new orders, the travel time costs are not included and should be recovered through the service charge. |
| TCC in Alberta, British Columbia, and Quebec | Access service charge – proposed costs for product management and loop qualification are included in the service charge | Transfer these two activities to the monthly access rate | These costs are causal to the monthly access service |
| TCC in Alberta, British Columbia, and Quebec | Access service charge – proposed costs for service order updates and correction activities reflect a high occurrence rate based on SMEs | Occurrence rates for these activities reduced to the level identified by TCC | Reduction was in response to Commission interrogatory TELUS(CRTC)4Feb11-204 |