



Telecom Order CRTC 2017-312

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File numbers: Bell Canada Tariff Notices 7522, 7522A, 7524, 7524A, and 7534; Cogeco Tariff Notices 56 and 57; RCCI Tariff Notice 48; and Videotron Tariff Notice 53

Interim rates for disaggregated wholesale high-speed access services in Ontario and Quebec

The Commission determines that disaggregated wholesale high-speed access (HSA) services should be made available, on an interim basis, by Bell Canada, Cogeco, RCCI, and Videotron to competitors in Ontario and Quebec, and sets out the interim rates for these services. The availability of disaggregated wholesale HSA services will enable competitors to become more innovative by giving them a greater degree of control over their service offerings to Canadians, including access to fibre-to-the-premises facilities.

Introduction

1. The Commission regulates wholesale high-speed access (HSA) services provided by the large cable and telephone companies (collectively, the wholesale HSA service providers). Competitors¹ can use these services to provide their own retail Internet services and other services.
2. In Telecom Regulatory Policy 2015-326, the Commission mandated the implementation of a disaggregated wholesale HSA service consisting of only an access component, and imposed an obligation on certain carriers in Ontario and Quebec to provide the service. When implemented, the obligation to provide a disaggregated wholesale HSA service would replace the obligation to provide an aggregated wholesale HSA service, which includes both access and transport components. The Commission stated that this change would be subject to a transition plan. The disaggregated wholesale HSA service was to be made available on a central office (CO) or head-end basis, and only when a competitor actually obtained the service at the CO or head-end. In addition to requiring the provision of end-customer access over existing copper and hybrid fibre coaxial (HFC) facilities, the Commission mandated access over fibre-to-the-premises (FTTP) facilities.
3. As a result of its determinations, the Commission directed Cogeco Communications Inc. (Cogeco); Quebecor Media Inc., on behalf of Videotron G.P. (Videotron); and

¹ For the purpose of this order, “competitors” are the customers of wholesale HSA service providers. Competitors purchase access to wholesale HSA services to provide or resell telecommunications services to their own end-users.

Rogers Communications Canada Inc. (RCCI) [collectively, the cable carriers],² as well as Bell Canada, to file configurations for their proposed disaggregated wholesale HSA services for their Ontario and Quebec serving territories.

4. The Commission reviewed the companies' proposals and, in Telecom Decision 2016-379, it established guidelines for acceptable configurations and directed the companies to file proposed rates and associated Phase II cost studies for their disaggregated wholesale HSA services that reflected the Commission's directives. Bell Canada was also directed to file rates and associated Phase II cost studies for an external meet-me point for competitor interconnection to its disaggregated wholesale HSA service, similar to the meet-me point provided by the cable carriers.³

Applications

5. The Commission received tariff applications from Bell Canada, Cogeco, RCCI, and Videotron, dated 9 January 2017, along with supporting cost studies for both fibre-to-the-node (FTTN)-based and FTTP-based disaggregated wholesale HSA services.
6. As part of their applications, the cable carriers filed proposed capacity rates per 50 megabits per second (Mbps) and access rates for their FTTN-based disaggregated wholesale HSA services. Cogeco and RCCI also filed proposed access rates for their FTTP-based disaggregated wholesale HSA services that rely on radio frequency over glass (RFoG) technology. In addition, the cable carriers proposed to apply their existing aggregated wholesale HSA service charges to corresponding activities associated with their disaggregated wholesale HSA services.
7. Bell Canada filed proposed capacity rates per 50 Mbps and access rates for the company's FTTN- and FTTP-based disaggregated wholesale HSA services with supporting cost studies. Similar to the cable carriers, Bell Canada proposed to apply its existing aggregated wholesale HSA service charges to some of the corresponding activities associated with its disaggregated wholesale HSA service. Bell Canada also proposed modified service charges for FTTN access and capacity rates per 50 Mbps, along with several new service charges.
8. On 31 January 2017, Bell Canada filed a tariff application and a supporting cost study for the provision of a meet-me point for competitors at a given CO, including proposed service charges.
9. On 28 February 2017, Cogeco submitted a separate tariff application to establish access rates for a new Ethernet passive optical network (EPON)-based FTTP service offering.

² At the time, Cogeco Communications Inc. was known as Cogeco Cable Inc., and Rogers Communications Canada Inc. was known as Rogers Communications Partnership.

³ Bell Canada filed a [Part 1 application](#) with the Commission, dated 2 December 2016, to review the requirement to provide a meet-me point. This application is currently under consideration.

10. Bell Canada filed updates to the cost studies for its disaggregated wholesale HSA service, as well cost studies in support of revised rates for its aggregated wholesale HSA service, on 20 March 2017. These studies included multiple scenarios to reflect the impact of different assumptions for both types of wholesale HSA services.
11. On 21 April 2017, Bell Canada filed a tariff application with supporting cost studies for a bonded FTTN access for its disaggregated wholesale HSA service.
12. The intervention process is ongoing. The public records of these proceedings can be found on the Commission's website at www.crtc.gc.ca or by using the file numbers provided above.

Issues

13. To enable the timely introduction of disaggregated wholesale HSA services, the Commission considers that it may be appropriate to make the services available to competitors on an interim basis while the in-depth review to establish final rates is carried out.
14. Accordingly, the Commission has identified the following issues to be addressed in this order:
 - Should disaggregated wholesale HSA services be made available on an interim basis?
 - If so, are the rates proposed by Bell Canada and the cable carriers based on reasonable costs?
 - If the proposed rates are not based on reasonable costs, what adjustments should be made?

Should disaggregated wholesale HSA services be made available on an interim basis?

15. In Telecom Regulatory Policy 2015-326, the Commission stated that the availability of disaggregated wholesale HSA services would enable competitors to become more innovative by giving them a greater degree of control over their service offerings. Moreover, such services could encourage competitor investment in alternative transport facilities, thereby serving to develop a more robust telecommunications system.
16. In addition, disaggregated wholesale HSA services would enable competitors to access end-users served by FTTP facilities.
17. The unavailability of FTTP access is a concern for competitors. Competitors have recently requested relief regarding FTTP access for the time period in which disaggregated wholesale HSA services are not available. For example, in Telecom Decision 2016-446, the Commission directed RCCI to make FTTP access available through its aggregated wholesale HSA service to TekSavvy Solutions Inc. and other

competitors at a residential complex where RCCI had deployed FTTP and had removed its existing HFC network.

18. The availability of interim rates would provide competitors with the ability to use disaggregated wholesale HSA services (including FTTP access) and the opportunity to more effectively compete prior to the finalization of the rates, to the benefit of Canadians.
19. In light of the above, the Commission determines that disaggregated wholesale HSA services should be made available on an interim basis.

Are the rates proposed by Bell Canada and the cable carriers based on reasonable costs?

Positions of parties

20. Bell Canada and the cable carriers proposed rates that are generally based on the associated Phase II costs⁴ plus a specified markup.
21. Bell Canada proposed to use an alternative costing approach to develop its capacity rate per 50 Mbps, rather than using the costing methodology outlined in its Regulatory Economic Studies Manual (the Manual). Bell Canada provided one set of cost studies based on its alternative costing approach and a second set of cost studies based on Phase II costing principles. Further, it provided rationale to support its alternative costing approach.
22. In addition, Bell Canada and the cable carriers proposed deviations from past Commission determinations regarding the annual capital unit cost change assumption⁵ and various working fill factors (WFFs)⁶ of equipment. Each company provided rationale for its proposed deviations.
23. Bell Canada further proposed an FTTN access rate for its disaggregated (and aggregated) wholesale HSA services that did not incorporate several assumptions that the Commission applied in Telecom Regulatory Policy 2011-703 when setting FTTN access rates for the company's existing aggregated wholesale HSA service (assumptions that have been maintained in the current interim FTTN access rates for

⁴ Phase II costs reflect the costs of the prospective incremental resources used to provide a service, consistent with the costing methodologies and assumptions set out in the incumbent local exchange carriers' approved Manuals. Phase II costing principles were set out in Telecom Decision 79-16 and amended in subsequent Commission decisions.

⁵ The annual capital unit cost change assumption reflects technological advancements, whereby suppliers are able to meet rising demands from traffic growth by increasing equipment capacity at a lower cost per unit.

⁶ The WFF is a measure of the ultimate utilization of a shared facility and is used to recognize the non-working capacity (spare units, units required for maintenance [i.e. administrative] functions, etc.) of the shared facility, and to apportion the cost of non-working capacity to the per-unit cost of the working capacity. A lower WFF will result in higher costs.

its aggregated wholesale HSA service). Bell Canada also proposed certain service charges for disaggregated wholesale FTTN access that differ from the corresponding charges in place for aggregated wholesale FTTN access.

Commission's analysis and determinations

24. The Commission has reviewed the costing approaches and assumptions proposed by Bell Canada and the cable carriers in developing their rates for disaggregated wholesale HSA services and has completed a preliminary review of the evidence submitted in their respective applications in support of their deviations from either the Phase II costing methodology or previous Commission determinations. Given that the arguments in support of the deviations have not been subject to a thorough review that includes comments from parties and interrogatories, the Commission considers that it would be premature to set interim rates that incorporate the proposed deviations.
25. As noted by Bell Canada,⁷ the FTTN access component is the same for both aggregated and disaggregated wholesale HSA services. Since the assumptions that Bell Canada included in its proposed FTTN access rate for its disaggregated wholesale HSA service differ from those applied in past decisions by the Commission and have not been subject to a thorough review, the Commission considers that it would also be premature to incorporate such assumptions in setting interim FTTN access rates for Bell Canada's disaggregated wholesale HSA service.
26. In addition, the Commission has found several errors in spreadsheet cost models that affect the disaggregated wholesale HSA service rates proposed by some of the cable carriers, which should be corrected.
27. In light of the above, the Commission considers that Bell Canada's and the cable carriers' proposed costs, for the purpose of setting interim rates, are not reasonable. The Commission further considers that interim rates should rely on established Phase II costing methodology and past Commission determinations.

If the proposed rates are not based on reasonable costs, what adjustments should be made?

28. The Commission considers that a number of adjustments related to the following are required to ensure that the interim rates reflect more reasonable underlying costs:
 - costing methodology;
 - previous Commission determinations;
 - Bell Canada-specific determinations related to the access component; and
 - cost model errors.

⁷ See Bell Canada Tariff Notice 7522, Attachment 1, paragraph 43.

Costing methodology

Background

29. Each large incumbent local exchange carrier's (ILEC)⁸ Manual states that the capacity cost method is to be used to estimate the unit cost for shared facilities. The capacity cost method determines the per-unit cost by dividing the installed first cost⁹ of the shared facilities by its maximum capacity and then dividing this ratio by the appropriate WFF. In addition, the unit cost included in a cost study is to reflect the cost of growth technology, i.e. the technology the company will deploy going forward.

Positions of parties

30. Bell Canada submitted that its preferred approach for estimating monthly capacity rates per 50 Mbps was to use a costing approach called "explicit costing" instead of the capacity costing approach outlined in the Manual. Bell Canada described its explicit costing approach as a fundamental tool to properly estimate causal costs, and described the capacity costing approach as an outdated methodology that was introduced some 40 years ago as an approximation to explicit costing. Bell Canada further submitted that capacity costing is only applicable when the network is stable and evolving slowly and that, since these conditions are not met today, capacity costing is not as accurate as explicit costing and will not lead to just and reasonable rates.

31. Bell Canada submitted separate sets of cost studies and associated monthly capacity rates per 50 Mbps, with one set based on the explicit costing approach and the other set based on the capacity costing approach.

32. Cogeco proposed an approach in its cost study that did not uniformly apply growth technology in the estimation of its capital expenditures.

Commission's analysis and determinations

33. The Commission has reviewed Bell Canada's explicit costing approach in conjunction with the Manual and previous instances in which Bell Canada has used an explicit costing approach, and considers that the proposed approach requires further review. Accordingly, for interim rate-setting purposes, the Commission has used Bell Canada's cost studies that use the capacity costing approach.

34. With regard to Cogeco's approach, Phase II costing methodology is clear in that the capital expenditures included in a regulatory economic study are to reflect growth technology. Accordingly, the Commission has made appropriate adjustments.

⁸ "Large ILECs" refers to Bell Aliant Regional Communications, Limited Partnership; Bell Canada; Bell MTS; Saskatchewan Telecommunications; and TELUS Communications Company.

⁹ This represents the incremental capital cost of the next unit of demand. This cost is always calculated using "cost new" and "growth technology."

Previous Commission determinations

Positions of parties

35. Bell Canada (in its alternative proposal for monthly capacity rates per 50 Mbps that were calculated using the capacity costing approach) and the cable carriers proposed to calculate the unit cost of shared equipment using WFFs that are lower than those approved in Appendix V, table 9 of the Manual, or in Telecom Decision 2006-77. In support of its proposed WFFs, Bell Canada provided measurements of the percentage of equipment ports in use for different speed ports in its edge and core network, along with samples of measurements of peak traffic on the active ports. The cable carriers provided evidence, in the form of a report prepared by CableLabs,¹⁰ to support their proposed WFFs.
36. Bell Canada and the cable carriers proposed to apply annual capital unit cost changes that were different from the -26.4% figure established in Telecom Decision 2016-117 to their traffic-driven equipment. The cable carriers submitted that they agreed with TELUS Communications Company's (TCC) submission in its Tariff Notice 512 filing, wherein TCC submitted that *Routers Report: Five-Year Forecast: 2011-2015* by the Dell'Oro Group (the 2011 Dell'Oro Report), which was used to set the -26.4% figure, was out of date, and that a more recent report was available (the 2016 Dell'Oro Report). The cable carriers supported TCC's position that the appropriate annual capital unit cost change assumption of -16.8% for data aggregation and switching equipment is more appropriate, based on the information contained in the 2016 Dell'Oro Report. The cable carriers proposed to use an annual capital unit cost change of -17%. In a similar vein, Bell Canada proposed an annual capital unit cost change of -15.7% based on a calculation using data from the updated report.

Commission's analysis and determinations

37. The Commission considers that the evidence noted above requires further review. Accordingly, for interim rate-setting purposes, the Commission has applied
- WFFs approved in Appendix V, table 9 of the Manual, or used in determinations set out in Telecom Decision 2006-77, as appropriate, to each company's shared equipment; and
 - the annual capital unit cost change of -26.4% established in Telecom Decision 2016-117 to each company's traffic-driven equipment.

Bell Canada-specific determinations related to the access component

Umbilical fibre costs

¹⁰ *Cable Broadband Network Architecture and Capacity Planning: Working Fill Factor*, jointly filed on 9 January 2017 by Bragg Communications Incorporated, operating as Eastlink; Cogeco; RCCI; Shaw Cablesystems G.P.; and Videotron.

Positions of parties

38. Bell Canada proposed to recover umbilical fibre costs for both its FTTN- and FTTP-based disaggregated wholesale HSA service in its monthly capacity rate per 50 Mbps. Bell Canada submitted that these components are usage-sensitive and should therefore be recovered in the monthly capacity rate rather than the monthly access rates.

Commission's analysis and determinations

39. For the aggregated wholesale HSA service, the umbilical fibre costs for the FTTN-based service are currently being recovered through Bell Canada's FTTN access rates, which were made final in Telecom Regulatory Policy 2011-703, modified in Telecom Decision 2013-73, and made interim in Telecom Decision 2016-117. Since the FTTN access component for the aggregated wholesale HSA service is the same as the one for the disaggregated wholesale HSA service, it would be appropriate to apply the current FTTN access rate for the aggregated wholesale HSA service to the FTTN access for the disaggregated wholesale HSA service on an interim basis.
40. Since the Commission has approved an interim bonded FTTN access rate for Bell Canada's aggregated wholesale HSA service that includes the same assumption,¹¹ it would also be appropriate to apply the assumption to the bonded FTTN access rate for the company's disaggregated wholesale HSA service.
41. The Commission considers that the corresponding umbilical fibre component for FTTP access has a high capacity and is unlikely to be usage sensitive. Therefore, on an interim basis, it would be appropriate to associate the umbilical fibre costs with the FTTP access rate rather than the monthly capacity rate per 50 Mbps.
42. With the above approach, inclusion of all or a portion of the umbilical fibre costs in the disaggregated wholesale HSA monthly capacity rate per 50 Mbps may lead to over-recovery of these costs. Accordingly, for the interim rates, umbilical fibre costs should be removed from Bell Canada's monthly capacity rate per 50 Mbps.
43. The Commission will review Bell Canada's proposed transfer of umbilical fibre costs from the access rates to the monthly capacity rates for both aggregated and disaggregated wholesale HSA services during the process to establish final rates.

Removal of labour cost constraint

Positions of parties

44. Bell Canada proposed an FTTN access rate for its disaggregated wholesale HSA service that did not incorporate a Commission cost adjustment made in

¹¹ See Telecom Order 2017-261.

Telecom Regulatory Policy 2011-703 that caps the labour cost included in the digital subscriber line access multiplexer (DSLAM) costs at 40% of total DSLAM costs.

Commission's analysis and determinations

45. Given this inconsistency with the Commission's determination, for interim rates, it would be appropriate to include the cost constraint in the FTTN access rate for Bell Canada's disaggregated wholesale HSA service. Since the Commission has approved an interim bonded FTTN access rate for the aggregated wholesale HSA service that includes the cost constraint, it would be appropriate to apply the cost constraint to the bonded FTTN access rate for the disaggregated wholesale HSA service. Bell Canada's proposal will be reviewed during the process to establish final rates.

FTTN access service charges

Positions of parties

46. Bell Canada filed proposed FTTN access service charges for its disaggregated wholesale HSA service consisting of installation charges and charges for speed changes. These charges differ from the corresponding interim-approved FTTN access service charges for its aggregated wholesale HSA service.

Commission's analysis and determinations

47. In the Commission's ongoing proceeding to determine final rates for aggregated wholesale HSA service, Bell Canada did not file proposed new rates for the above-noted service charges for wholesale FTTN access, even though FTTN access for both the aggregated and disaggregated wholesale HSA services would require the same treatment for installation and speed changes. For the interim rates, it would be appropriate to apply the service charges that were approved for FTTN access for the aggregated wholesale HSA service to FTTN access for the disaggregated wholesale HSA service. The Commission will review Bell Canada's proposal during the process to establish final rates.

Cost model errors

48. The Commission notes that, in its review of the cost models filed in confidence by the companies, it found spreadsheet errors related to RCCI's estimation of capital expenditures for certain equipment and the vintage of certain data used by Videotron. The Commission has therefore made corrections that are reflected in the interim approved rates.

Conclusion

49. In light of the above, the Commission **approves on an interim basis** Bell Canada's and the cable carriers' proposed rates, subject to the revisions set out in Appendix 1 to this order. The approved rates include access rates for FTTN- and FTTP-based disaggregated wholesale HSA services, capacity rates per 50 Mbps, and associated

service charges for Bell Canada and the cable carriers, as well as rates for Bell Canada's meet-me point. Any rates proposed in the companies' tariff notices that are not listed in Appendix 1 are approved on an interim basis without changes. Explanations of the Commission's adjustments are summarized in Appendix 2.

50. The Commission **directs** Bell Canada, Cogeco, RCCI, and Videotron to issue revised tariff pages by **8 September 2017** reflecting the determinations set out in this order.¹²

Secretary General

Related documents

- *Bell Canada – Introduction of Bonded Access service*, Telecom Order CRTC 2017-261, 21 July 2017
- *TekSavvy Solutions Inc. – Application regarding transitional access to aggregated wholesale high-speed access service*, Telecom Decision CRTC 2016-446, 9 November 2016
- *Follow-up to Telecom Regulatory Policy 2015-326 – Implementation of a disaggregated wholesale high-speed access service, including over fibre-to-the-premises access facilities*, Telecom Decision CRTC 2016-379, 20 September 2016
- *Review of costing inputs and the application process for wholesale high-speed access services*, Telecom Decision CRTC 2016-117, 31 March 2016
- *Review of wholesale wireline services and associated policies*, Telecom Regulatory Policy CRTC 2015-326, 22 July 2015; as amended by Telecom Regulatory Policy CRTC 2015-326-1, 9 October 2015
- *Canadian Network Operators Consortium Inc. – Application to review and vary Telecom Regulatory Policies 2011-703 and 2011-704*, Telecom Decision CRTC 2013-73, 21 February 2013
- *Billing practices for wholesale residential high-speed access services*, Telecom Regulatory Policy CRTC 2011-703, 15 November 2011; as amended by Telecom Regulatory Policy CRTC 2011-703-1, 22 December 2011
- *Cogeco, Rogers, Shaw, and Videotron – Third-party Internet access service rates*, Telecom Decision CRTC 2006-77, 21 December 2006
- *Inquiry into Telecommunications Carriers' Costing and Accounting Procedures – Phase II: Information Requirements for New Service Tariff Filings*, Telecom Decision CRTC 79-16, 28 August 1979

¹² Revised tariff pages can be submitted to the Commission without a description page or a request for approval; a tariff application is not required.

Appendix 1 to Telecom Order CRTC 2017-312

Interim approved rates for disaggregated wholesale HSA services

Table 1(a): Interim approved monthly capacity rates per 50 Mbps

Company	Bell Canada	Cogeco	RCCI	Videotron
Rate	\$15.04	\$161.56	\$143.99	\$126.91

Table 1(b): Interim approved monthly FTTN access rates

Company	Speed	Rate
Bell Canada (non-bonded)	All	\$25.62
Bell Canada (bonded)	All	\$52.32
Cogeco	0-6 Mbps	\$14.00
	7-15 Mbps	\$15.64
	16-40 Mbps	\$21.86
	41-60 Mbps	\$32.48
	61-120 Mbps	\$52.51
	121-250 Mbps	\$61.41
RCCI	0-15 Mbps	\$21.71
	16-30 Mbps	\$24.52
	31-60 Mbps	\$26.50
	61-100 Mbps	\$28.88
	101-249 Mbps	\$40.77
	250-499 Mbps	\$54.05
	500-749 Mbps	\$61.54
	750-1024 Mbps	\$76.93
Videotron	0-5 Mbps	\$17.57
	6-10 Mbps	\$19.61
	11-30 Mbps	\$23.10
	31-60 Mbps	\$30.57
	61-120 Mbps	\$35.88

	121-200 Mbps	\$39.63
	201-500 Mbps	\$56.89
	501-1000 Mbps	\$75.81

Table 1(c): Interim approved monthly FTTP access rates

Company	Speed	Rate
Bell Canada (FTTP)	All	\$121.79
Cogeco (EPON)	All	\$172.43
Cogeco (RFoG)	0-6 Mbps	\$43.24
	7-15 Mbps	\$46.02
	16-40Mbps	\$49.37
	41-60 Mbps	\$56.90
	61-120 Mbps	\$66.70
	121-250 Mbps	\$72.28
RCCI (RFoG)	0-15 Mbps	\$27.21
	16-30 Mbps	\$30.24
	31-60 Mbps	\$32.37
	61-100 Mbps	\$34.93
	101-249 Mbps	\$47.74
	250-499 Mbps	\$62.03
	500-749 Mbps	\$70.11
	750-1024 Mbps	\$86.68

Table 1(d): Bell Canada – Interim approved access service charges

Item	Rate
Disaggregated wholesale HSA non-bonded FTTN access installation charge	\$90.65
Disaggregated wholesale HSA bonded FTTN access installation charge	\$167.84
Speed change service charge, per disaggregated HSA access	
• With a premises visit	\$90.65

Appendix 2 to Telecom Order CRTC 2017-312

Rationale for Commission rate adjustments

Table 2(a): Bell Canada

Monthly capacity rate per 50 Mbps

Area requiring adjustment	Commission adjustment	Rationale for adjustment
Costing methodology	Used capacity costing instead of explicit costing	<p>Bell Canada proposed to use an explicit costing approach to estimate capacity rates. Capacity costing rather than explicit costing is the Commission's accepted approach for the estimation of costs.</p> <p>Evidence submitted to deviate from the use of capacity costing will be fully reviewed during the process to set final rates.</p>
Switch and router costs	Applied a WFF of 80% to switch and router equipment	<p>Bell Canada, in its alternative capacity costing approach, applied WFFs that are lower than the WFFs in Appendix V, table 9 of the Manual.</p> <p>Evidence submitted to deviate from approved WFFs will be fully reviewed during the process to set final rates.</p>
Switch and router costs	Applied an annual capital unit cost change of -26.4% to switch and router costs	<p>Bell Canada applied an annual capital unit cost change of -15.7% to switch and router costs instead of -26.4%, which was established in Telecom Decision 2016-117.</p> <p>Evidence submitted to deviate from the determination in Telecom Decision 2016-117 will be fully reviewed during the process to set final rates.</p>

Umbilical fibre	Excluded umbilical fibre (FTTN and FTTP) costs from the monthly capacity rate	<p>Bell Canada treated umbilical fibre for both FTTN and FTTP access as usage-sensitive equipment and included the costs in the monthly capacity rate.</p> <p>FTTN umbilical fibre costs are currently recovered through the FTTN access rate – an assumption that the Commission applied when it set rates for FTTN access for the aggregated service. As discussed in the “Monthly access rate” section below, for interim rate purposes, the umbilical fibre for both FTTN and FTTP is to be associated with the access component. Inclusion of these costs in the monthly capacity rate will lead to over-recovery of these costs.</p> <p>Evidence submitted to deviate from this approach will be fully reviewed during the process to set final rates.</p>
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Monthly access rate

Area requiring adjustment	Commission adjustment	Rationale for adjustment
Umbilical fibre	Included appropriate umbilical fibre costs in FTTN and FTTP access rates	<p>Bell Canada excluded umbilical fibre from the access rate for FTTN and FTTP.</p> <p>FTTN umbilical fibre costs are currently recovered through the FTTN access rate – an assumption that the Commission applied when it set rates for FTTN access for the aggregated service.</p> <p>Given the capacity of the FTTP umbilical fibre, the same assumption is to apply to FTTP access.</p> <p>Evidence submitted to deviate from this approach will be fully reviewed during the process to set final rates.</p>

Cap on DSLAM labour costs	Applied a 40% cap on DSLAM labour costs for FTTN access rates	<p>Bell Canada did not include the Commission-applied labour cap of 40% of the DSLAM costs in its estimation of FTTN access rates.</p> <p>Given that the cap is in place for existing FTTN access rates, it is appropriate to maintain it for these rates.</p> <p>Evidence submitted to deviate from this approach will be fully reviewed during the process to set final rates.</p>
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Table 2(b): Cogeco

Monthly capacity rate per 50 Mbps and access rates

Area requiring adjustment	Commission adjustment	Rationale for adjustment
Node segmentation and Converged Cable Access Platform (CCAP) capital costs	Adjusted node segmentation and CCAP capital costs to reflect the appropriate WFFs	<p>Cogeco estimated its node segmentation costs using WFFs that are lower than those used in the Telecom Decision 2006-77 cost determinations.</p> <p>Evidence submitted to deviate from the determinations made in Telecom Decision 2006-77 will be fully reviewed during the process to set final rates.</p> <p>Cogeco estimated its CCAP capital costs using WFFs that are lower than those in Appendix V, table 9 of the Manual.</p> <p>Evidence submitted to deviate from the determination made in Appendix V, table 9 will be fully reviewed during the process to set final rates.</p>

Monthly capacity rate per 50 Mbps

Area requiring adjustment	Commission adjustment	Rationale for adjustment
CCAP capital costs	Applied an annual capital unit cost change of -26.4% to CCAP capital costs	<p>Cogeco applied an annual capital unit cost change of -17% to CCAP capital costs instead of -26.4%, which was established in Telecom Decision 2016-117.</p> <p>Evidence submitted to deviate from the determination in Telecom Decision 2016-117 will be fully reviewed during the process to set final rates.</p>

Growth technology	Adjusted costs to appropriately reflect growth technology	Cogeco did not uniformly apply growth technology in the estimation of its capital expenditures in its cost study. As per the Manual, growth technology should be included in the cost study.
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Table 2(c): RCCI

Monthly capacity rate per 50 Mbps and access rates

Area requiring adjustment	Commission adjustment	Rationale for adjustment
Node segmentation capital costs	Adjusted node segmentation capital costs to reflect the appropriate WFFs	RCCI estimated its node segmentation costs using WFFs that are lower than the WFFs used in the Telecom Decision 2006-77 cost determinations. Evidence submitted to deviate from the determinations made in Telecom Decision 2006-77 will be fully reviewed during the process to set final rates.

Monthly capacity rate per 50 Mbps

Area requiring adjustment	Commission adjustment	Rationale for adjustment
Router and CCAP capital costs	Applied an annual capital unit cost change of -26.4% to point of interconnection (POI) router and CCAP capital costs	RCCI applied an annual capital unit cost change of -17% to POI router and CCAP capital costs instead of -26.4%, which was established in Telecom Decision 2016-117. Evidence submitted to deviate from the determination in Telecom Decision 2016-117 will be fully reviewed during the process to set final rates.
Router and CCAP capital costs	Adjusted router and CCAP capital costs to reflect the appropriate WFFs	RCCI estimated its router and CCAP capital costs based on WFFs that are lower than those provided in Appendix V, table 9 of the Manual. Evidence submitted to deviate from the determination in Appendix V, table 9 will be fully reviewed during the process to set final rates.
Spreadsheet error	Corrected calculation error	RCCI incorrectly calculated the capital expenditures for certain equipment

Table 2(d): Videotron

Monthly capacity rate per 50 Mbps

Area requiring adjustment	Commission adjustment	Rationale for adjustment
Node segmentation and CCAP capital costs	Adjusted node segmentation and CCAP capital costs to reflect the appropriate WFFs	<p>Videotron estimated its node segmentation costs based on WFFs that are lower than those used in the Telecom Decision 2006-77 cost determinations.</p> <p>Evidence submitted to deviate from the determinations in Telecom Decision 2006-77 will be fully reviewed during the process to set final rates.</p> <p>Videotron estimated its CCAP capital costs based on WFFs that are lower than those in Appendix V, table 9 of the Manual.</p> <p>Evidence provided to deviate from the determination in Appendix V, table 9 will be fully reviewed during the process to set final rates.</p>
CCAP capital costs	Applied an annual capital unit cost change of -26.4% to CCAP capital costs	<p>Videotron applied an annual capital unit cost change of -17% to CCAP capital costs instead of -26.4%, which was established in Telecom Decision 2016-117.</p> <p>Evidence submitted to deviate from the determination in Telecom Decision 2016-117 will be fully reviewed during the process to set final rates.</p>
Spreadsheet error	Corrected spreadsheet error	Videotron referenced incorrect vintage of certain data in its calculations