CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION

IN THE MATTER OF AN APPLICATION BY
TELUS COMMUNICATIONS INC. PURSUANT TO SECTION 62 OF THE
TELECOMMUNICATIONS ACT
AND PART 1 OF THE CRTC TELECOMMUNICATIONS RULES OF
PRACTICE AND PROCEDURE


APPLICATION TO REVIEW AND VARY

November 13, 2019
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1.0 Executive Summary

1. TELUS Communications Inc. (“TELUS” or the “Company”) applies to review and vary certain determinations in Follow-up to Telecom Orders 2016-396 and 2016-448 – Final rates for aggregated wholesale high-speed access services, Telecom Order CRTC 2019-288 (“TO 2019-288”). In this Application, TELUS provides the basis as to why there is substantial reason to doubt the correctness of TO 2019-288, on the basis of three major errors the Commission has made when it approved TELUS’ costs, causing rates that are too low to recover TELUS’ costs.

2. When setting rates for regulated services, the Commission’s longstanding approach is to use its Phase II costing approach, which is based on long-run incremental costing. However, the effectiveness of Phase II hinges on adhering to and implementing the underlying principles of this methodology. If properly implemented, Phase II costing should lead to compensatory rates for facilities providers and maintain their incentive to continue to invest in their facilities. The errors that TELUS raises in this Application are deviations from Phase II, leading to non-compensatory rates. This will hinder, rather than facilitate, competition and decrease incentives for facilities providers to continue to invest in their networks.

3. The first error made by the Commission in TO 2019-288 occurred when it ignored cost causality by applying an incorrect attribution factor to TELUS’ submitted costs. This attribution factor arbitrarily reduced TELUS’ costs for provisioning the wholesale service by “attributing” a significant portion of the incurred costs to other services. The Commission’s calculation of the attribution factor result in rates that create an invalid cross-subsidy from TELUS’ retail IP-based services other than Internet\(^1\) to the wholesale high-speed access (“HSA”) service. In the case of TELUS, the Commission’s attribution factor reduces the appropriate allocation of access costs to the wholesale HSA service by 41%. The attribution factor was applied in error as it bears no resemblance to company and

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\(^1\) The Commission subsequently amended TO 2019-288 by way of issuance of Telecom Order CRTC 2019-288-1. All references to TO 2019-288 refer to the fully amended Order.

\(^2\) Cross-subsidy applies in cases where the retail IP-based services other than Internet are paired with retail Internet service, which occurs in practically all cases.
service-specific costs that are causal, incremental and prospective. The Commission should vary TO 2019-288 to allow 100% of the access costs to be attributed to the wholesale HSA service.

4. The second error made by the Commission in TO 2019-288 occurred when the Commission misinterpreted the labelling and use of a custom cash-flow timing parameter contained within the confidential electronic files submitted by TELUS. As outlined in the Regulatory Economic Studies Manual, a discounted cash flow methodology is used for the calculation of proposed service rates. TELUS adhered to this method by accurately depicting when cash flows for capital expenses would occur to support both existing and new demands for the service. The Commission’s adjustments to this parameter caused inaccurate delays in the timing of cash flows for all capital costs and, in turn, incorrect calculation of the rates for the service. TO 2019-288 should be varied to correct the Commission’s erroneous adjustments to the cash-flow timing of capital costs. TELUS requests that its proposed setting for the timing of capital costs (labelled in TELUS’ model as the “OneTime” setting) be restored to reflect the practical timing of cash outflows required to support both existing and new end-users of the service.

5. In addition to the costing errors, the Commission destabilized the regulatory environment by ordering that the rates apply retroactively to March 2016, a period of over three years, and consequently, the facilities-based carriers (having already spent billions of dollars investing in communications infrastructure across the country), must now pay millions of dollars to these reseller competitors. Resellers, in turn, have no obligation to use these payments to issue retroactive credits to their customers. They are a windfall to the owners of reseller ISPs, with no corresponding benefit to their customers.

6. As a subset of the issue of the retroactive application of the rates, the Commission has failed to recognize a basic principle by removing the markup that has been a fundamental parameter. It was set by the Commission in Telecom Regulatory Policy CRTC 2010-632 (“TRP 2010-632”) and has been relied upon by TELUS since then, but has been incorrectly rescinded in TO 2019-288. In TO 2019-288, the Commission approved new rates for TELUS’ wholesale HSA services that included a 10% reduction in markup from 40% to
30%. The rates were then made retroactive, meaning that the change in markup is also to be applied retroactively. There is a direct Commission precedent that states that changes to the markup should only be made on a prospective basis. To maintain regulatory certainty for future investments in telecommunications, and if retroactivity is not removed completely, TO 2019-288 should be varied so that the changes to the markup are only applied on a prospective basis.

7. TELUS requests that the Commission review and vary its determinations related to the application of the attribution factor, the timing of CAPEX adjustments and requirement for rates, and specifically the markup to be applied retroactively. Specifically, the Commission should vary TO 2019-288 by:

(a) eliminating the attribution factor to allow 100% of the access costs to be attributed to the wholesale HSA service;

(b) restoring the setting for the timing of capital costs (“OneTime” setting) in TELUS’ submitted cost model to reflect the practical timing of cash outflows required to support both existing and new end-users of the service;

(c) removing the retroactive application of the rates, so that rates are applied prospectively from the date of the decision, August 15, 2019; and

(d) if the Commission does not remove the retroactive application of the rates entirely, then at a minimum, the change in markup to 30% must only be applied prospectively from the date of the decision.

8. Furthermore, substantial policy questions stem from TO 2019-288 and the Commission’s mandated wholesale access regime in general. It is for this reason that TELUS is filing a Petition to the Governor-in-Council concurrently with this Application. The Petition raises important and far-reaching concerns about the negative impact of TO 2019-288 on investment in broadband infrastructure in Canada and the competitive broadband market. Additionally, it addresses how TO 2019-288 undermines the federal government’s policy objectives and directions and ultimately results in regulatory uncertainty, which causes
serious concerns for a heavily capital intensive industry such as telecommunications. Therefore, while this Application seeks to correct significant and consequential costing methodology errors committed by the Commission, the Petition brings to light underlying policy matters about mandated access to broadband services that must be reviewed by the Governor-in-Council. TELUS attaches a copy of the Petition to this Application.

2.0 Background

9. TO 2019-288 was the product of protracted cost study proceedings and series of decisions. It set final rates for wholesale HSA services that had been under consideration since the issuance of Telecom Notice of Consultation 2015-225 ("TNC 2015-225") on May 28, 2015. The outcome of TNC 2015-225 was Telecom Decision CRTC 2016-117 ("TD 2016-117"), which made interim all aggregated wholesale HSA service rates of the incumbent local exchange carriers\(^3\) ("ILECs") and cable carriers\(^4\) (collectively, the "wholesale HSA service providers") that had previously been approved on a final basis.

10. As directed in TD 2016-117, the wholesale HSA service providers filed cost studies in accordance with the Regulatory Economic Studies Manuals that are based on the Phase II costing methodology. Following submission of the tariff applications and cost studies, Telecom Orders CRTC 2016-396 ("TO 2016-396") and 2016-448 were issued. Though the Commission admitted that its examination was “necessarily less than fully comprehensive”\(^5\) it proceeded to make adjustments to the rates previously made interim in TD 2016-117 and set out revised interim rates.

11. Another 3 years and 5 months passed before the Commission issued TO 2019-288. TO 2019-288 was a destabilizing decision for the industry, in that the Commission disregarded fundamental costing principles, the actual costs of delivering wholesale HSA services and the need for regulatory certainty. This last point is especially concerning given that, in the ordinary course of their business, wholesale HSA service providers risk hundreds of

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\(^3\) The ILECs include Bell Canada, Bell MTS (collectively “Bell”), Saskatchewan Telecommunications (“SaskTel”) and TELUS.

\(^4\) The cable carriers include Bragg Communications Incorporated, carrying on business as Eastlink (“Eastlink”); Cogeco Communications Inc. (“Cogeco”); Quebecor Media Inc., on behalf of Videotron G.P. (“Videotron”); Rogers Communications Canada Inc. (“Rogers”); and Shaw Cablesystems G.P. (“Shaw”).

\(^5\) TO 2016-396, para. 26.
millions of dollars in network investments. Because of the nature of these investments, they are only made possible if lenders in the financial markets are willing to invest their capital in telecommunications based on the prospect of generating positive returns. An unstable regulatory environment makes such prospective investment more risky and raises the cost of capital for service providers. The result is a reduction in investments, which ultimately means slower network buildout in Canada, with some areas, especially rural and remote areas, being potentially excluded altogether.

12. In this Application, TELUS seeks a review and vary of three specific rate-setting issues that have the most dramatic impact on the rates not reflecting the costs of providing service. TELUS requests the Commission review and vary these items as a means to correct the most serious costing methodological errors that the Commission committed in TO 2019-288. Correction of these errors is necessary so that the Commission can maintain consistency with Phase II costing principles.

13. However, these are not the only determinations in TO 2019-288 that are incorrect. Other problematic items include the Commission 1) applying a minus 26.4% annual unit cost change factor that was not supported by evidence and 2) delaying consideration of an updated after-tax weighted average cost of capital. Given that the Commission has committed to allowing company-specific data in the future for the annual unit cost change factor and reviewing TELUS’ financial parameters in a future proceeding, TELUS will not address those items at this time.

14. In addition, substantial policy questions stem from TO 2019-288 and the Commission’s mandated wholesale access regime in general. It is for this reason that TELUS is filing a Petition to the Governor-in-Council concurrently with this Application. The Petition raises serious concerns about the negative impact of TO 2019-288 on investment in broadband infrastructure in Canada and the competitive broadband market. Additionally, it addresses

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6 TO 2019-288, para. 22 states TELUS’ data was limited to two years and was not sufficient to forecast an annual capital unit cost change assumption for the cost study period. Paras. 21, 23-24 state that for other providers the Commission’s reasoning for applying minus 26.4% is due to the lack of company-specific data provided and in absence of that information minus 26.4% is a reasonable estimate. This suggests that if sufficient company-specific data is provided in the future, it will be used.

how TO 2019-288 undermines the federal government’s policy objectives and directions and ultimately results in regulatory uncertainty, which is extremely detrimental for a heavily capital intensive industry such as telecommunications.

15. The issues raised and the remedies sought in this Application do not change TELUS’ view in terms of the relief sought in its Petition to Cabinet. Correction of the errors raised in this Application do not, on their own, solve the underlying problems that are brought to light by way of TO 2019-288. The Commission’s decision in TO 2019-288 indicates a lack of regard of the interests of the wholesale HSA service providers and the need for continued broadband network investment. The Commission has lowered rates for wholesale HSA services, disregarding the cost to supply, as a means to support wholesale ISPs to the point where facilities investment in broadband networks in Canada could be jeopardized.

3.0 The CRTC’s Errors that Justify Review and Variance

16. In Bulletin 2011-214, the Commission provided a non-exhaustive list of grounds which may demonstrate substantial doubt as to correctness:

   i. an error in law or in fact;

   ii. a fundamental change in circumstances or facts since the decision;

   iii. a failure to consider a basic principle which had been raised in the original proceeding; or

   iv. a new principle which has arisen as a result of the decision.

17. The Act requires that rates for telecommunications services be “just and reasonable.” The Supreme Court of Canada has considered the concept of “just and reasonable rates” in many past decisions, and in its most recent decision, it stated that just and reasonable rates

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10 Section 27(1) of the Act requires that rates “charged by a Canadian carrier for a telecommunications service shall be just and reasonable”.
must allow for the regulated entity “the opportunity to recover, over the long run, its operating and capital costs.”

18. The costing approach is key to setting just and reasonable rates. From an economic perspective, the only principled measure of costs is the actual, forward-looking incremental cost of the regulated firm - incremental (or marginal) cost is the appropriate cost measure for pricing. As Professor Alfred Kahn has stated, no other costing measure has economic validity in the context of pricing.

Once you abandon marginal cost, it is not difficult to find another measure of cost that will serve that purpose, it is hopeless. This is not a question of looking for a black cat in a room in which all the lights have been turned out. There is no cat there.

19. “Phase II” is the Commission’s chosen long-run incremental costing approach, with a long history in the telecommunications rate-setting process in Canada, and it is embodied by the Regulatory Economic Studies Manuals utilized by carriers. However, the effectiveness of Phase II hinges on adhering to and implementing the underlying principles of this methodology. If properly implemented, Phase II costing should lead to compensatory rates for facilities providers and maintain their incentive to continue to invest in their facilities. Deviation from Phase II leads to a non-compensatory rates, and encourages opportunistic regulatory behavior to set rates below costs. This will hinder, rather than facilitate, competition and decrease incentives for facilities-based providers to continue to invest in their networks. Simply stated, Phase II costing is a methodology that puts cost compensation at the heart of the rate-setting process and should continue to do so.

20. Furthermore, Phase II costing should send the right lease vs. build signals to competitors. Namely, if rates for leasing facilities are set below the incremental cost of providing those facilities, they will discourage competitors from investing and deprive society of efficient

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investments in alternatives. Phase II costing, properly implemented, is the accepted methodology to improve the welfare of all stakeholders, including, most importantly, the welfare of the consumer.

21. With this context, the Commission has committed errors of fact and law in that it has not included costs that are causal to the service and has not followed the Phase II costing methodology. Review and variance of the Commission’s errors in TO 2019-288 is necessary because they represent deviations from the Phase II costing approach, meaning that the approved rates are not just and reasonable. The errors cause rates that are not compensatory for the wholesale HSA providers and disincent investment in networks by both incumbents and competitors. Furthermore, the retroactive component of TO 2019-288, given the dramatic change in rates plus the length of the retroactive period, causes regulatory instability, and the failure of the Commission to recognize the implications of the retroactive order amounts to a failure to consider a basic principle that had been raised in the original proceeding.¹³

22. Therefore, the Commission should review and vary TO 2019-288 so that: 1) the application of an invalid attribution factor is removed, 2) the inaccurate delays in CAPEX timing applied to TELUS’ cost models are corrected, and 3) the retroactive application of the reduction in service markup is removed.

4.0 The Commission Erred in Fact and Law by Applying a Service-Based Attribution Factor

23. The Commission erred in fact and law by departing from economic rate-setting principles through its introduction of an attribution factor applied to the access costs of ILEC service providers. The Commission’s calculation of the attribution factor appears to be an incorrect form of the “all-carriers approach” for rate setting (explained below), that creates a cross-

¹³ During the proceeding that led to TO 2019-299, parties raised the issues that such a large retroactive order would have on the marketplace. For example, see Final Reply Comments of Bell in Follow-up to Telecom Decision CRTC 2016-379 and Follow-up to Order 2016-396 and Order 2016-448, filed November 16, 2018, para. 51 and 56 and Final Comments of Rogers in Follow-up to Telecom Decision CRTC 2016-379 and Follow-up to Order 2016-396 and Order 2016-448, filed October 12, 2018, para. 28.
subsidy from TELUS’ retail IP-based services other than Internet\textsuperscript{14} to the wholesale HSA service. In the case of TELUS, the Commission’s attribution factor reduces the appropriate allocation of access costs to the wholesale HSA service by 41\%. The attribution factor applied in error by the Commission bears no resemblance to company and service-specific costs that are causal, incremental and prospective as required by the Phase II approach documented in the Regulatory Economic Studies Manual. This resulted in the costs of the service being lowered without justification, leading to rates that are not just and reasonable. Further, the attribution factor must be rescinded due to its range of policy design flaws that will harm long-term economic outcomes.

\textbf{4.1. The Commission Erred by Ignoring Cost Causality}

24. The Commission erred in fact and law when it applied a service-based attribution factor to allocate costs of the ILECs’ shared access facilities to wholesale HSA services. In its decision, the Commission explained that IPTV, voice, and other services make use of the access facilities and therefore “it is unreasonable to attribute 100\% of these facilities costs to retail Internet and wholesale HSA services.”\textsuperscript{15} This approach is not cost-based and does not fully allocate the causal costs of the facilities that are used to provide the wholesale service. Instead, the Commission’s use of the attribution factor incorrectly spreads these costs across other services that have no causal, incremental impact on the access costs.

25. Though the explanation in TO 2019-288 is unclear, the attribution factor as specified by the Commission appears to be an incorrect attempt at an all-carriers approach\textsuperscript{16} that has been previously applied to other services to ensure equal cost allocation between the wholesale and equivalent retail services. The Commission’s exact specification of the attribution factor is repeated below.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{14} Specifically, the cross-subsidy applies in cases where the retail IP-based services other than Internet are paired with retail Internet service.
\item \textsuperscript{15} TO 2019-288, para. 223.
\item \textsuperscript{16} The all-carriers approach is defined in the Regulatory Economic Studies Manual (section 2-17.a) as follows:
\begin{quote}
Under the all carriers approach, the demand-driven cost of providing one unit of service demand is the weighted average of the demand-driven cost of providing the service to the competitors and to the company (i.e., the use of the wholesale service by the company as a service component in the provisioning of its retail services) weighted by the respective in-service demand and future demand growth.
\end{quote}
\end{itemize}
\end{footnotesize}
Erroneous service-based attribution factor specified by the Commission*

<table>
<thead>
<tr>
<th>All-Carrier</th>
<th>Item</th>
<th>[units of Wireline – Year End Subscribers]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet (Legacy DSL)</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td>Internet (FTTN &amp; FTTP)</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>IPTV</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Other (IP-based)</td>
<td>d</td>
<td></td>
</tr>
<tr>
<td><strong>Total (excl. Legacy DSL)</strong></td>
<td>e</td>
<td><strong>f = b / e</strong></td>
</tr>
<tr>
<td>% Internet of Total**</td>
<td>f</td>
<td></td>
</tr>
</tbody>
</table>

* CRTC Request for Information TELUS(CRTC)2Mar18-1a)
** Attribution factor

26. In its specification of the attribution factor, the Commission has erroneously included all retail IP-based services other than Internet service, including IPTV (items c and d in the table above). These services should not be considered in the calculation of rates for the wholesale HSA service because in almost all cases the incremental cost of the access facilities for TELUS retail IP-based services other than Internet is nil. The cost driver for the access facilities is the DSLAM port, and TELUS’ retail IP-based services other than Internet do not consume an additional unit of the DSLAM port. In the vast majority of cases, these additional services are offered within a service bundle that includes retail Internet service17 and share the DSLAM port with the Internet service.

27. Using the terminology of the Regulatory Economic Studies Manual, in the alternate case that a retail IP-based service other than Internet is provided by TELUS, there are no causal, incremental and prospective costs of the access facilities compared to the reference case – that is, the case of not providing the retail IP-based service other than Internet. Thus, based on economic principles, the subscriber count for retail IP-based services other than Internet (used in the attribution factor calculation) is irrelevant to cost allocation and the calculation of wholesale HSA service rates.

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17 Often retail Internet service is a prerequisite to access other TELUS retail IP-based services, such as in the case of PikTV.
28. Based on economic principles TELUS’ retail IP-based services other than Internet do not result in causal, incremental or prospective costs of the access facilities and are therefore irrelevant to cost allocation and the calculation of wholesale HSA rates. By including these services in the calculation of an attribution factor the Commission has ignored the Phase II costing principles as outlined in the Regulatory Economic Studies Manual.

4.2. Rates Must Be Based on the Appropriate Incremental Cost Driver – Usage of the Port

29. From the the Commission’s directions in TD 2016-117, the wholesale HSA service is defined in two parts: (i) the access portion, which includes only non-usage-sensitive costs, and (ii) the traffic-driven portion, which includes only usage-sensitive costs\(^\text{18}\). The access portion of TELUS’ service extends from the downstream DSLAM port to the downstream edge router (“RE”) port,\(^\text{19}\) and includes only non-usage-sensitive costs.

30. TELUS’ wholesale HSA service is not provisioned over the same physical DSLAM port as retail services\(^\text{20}\), and is provisioned separately via the allocation of either one DSLAM port for single-line configuration (i.e., non-bonded), or two ports for bonded services. Once the port is in use by a wholesale ISP, TELUS is unable to make use of it, and so the port consumption by the wholesale HSA service represents an opportunity cost for the provisioning of TELUS retail services. The wholesale ISP uses that port to enable Internet connectivity to the end-user and can provide any number of retail services via that connection, such as telephone, Internet and television. It is the usage of the port itself, not the number of retail services provided to the end-user that causes the cost to deliver the service.

31. The costs of the wholesale HSA service are assembled by identifying the activities that cause costs, also known as cost drivers. Telecom Decision CRTC 2008-14 defined appropriate cost drivers as “either the natural or practical driver which closely

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\(^{18}\) Telecom Decision 2016-117, paragraphs 84 to 86.

\(^{19}\) See also the service diagram provided in TELUS’ cost study submissions, e.g., Appendix 1 of Tariff Notice 542, *Introduction of a new wholesale Internet ADSL service speed for residential and business services*, submitted October 22, 2018.

\(^{20}\) Explanation provided in response to request for information TELUS(CRTC)2Mar18-1c.
approximates the underlying causal relationship.”\textsuperscript{21} As explained in TELUS’ response to request for information TELUS(CRTC)2Mar18-1c, the natural, incremental cost driver for the access portion of the HSA service is the DSLAM port. This is readily identified given that each additional HSA end-user, whether retail or wholesale, is provisioned via a DSLAM port and the utilization of this port in turn brings forward a successive chain of investments across the entire access network, from the DSLAM facilities, their corresponding FTTN uplinks, and the downstream RE ports that connect the aggregated service to TELUS’ core network.\textsuperscript{22}

32. There are a discrete number of ports available on a DSLAM and once all the ports are consumed, an additional DSLAM must be built. Additional DSLAMs create the need for additional ports on aggregation devices in the local central offices. The utilization of a DSLAM port, not the number of services provisioned over the port, is the cost driver for adding more DSLAMs and, in turn, additional capacity over the entire access. Therefore, the cost of the access facilities should be attributed per DSLAM port, not per number of services using the DSLAM.

33. Given that the cost driver of the access costs is the DSLAM port, TELUS correctly allocated the costs of each of the access facilities in terms of their unit costs per DSLAM port consumed by the service. It is incorrect, inefficient, and inequitable for the Commission to spread these costs across other services that have no bearing on the incremental access costs.

4.3. The Attribution Factor is Unnecessary due to the Correct Allocation of Costs using an All-carriers Approach

34. The incremental cost driver for the access, the DSLAM port, is the same for the wholesale HSA service as it is for the equivalent retail service. Provided an equivalent retail service is properly specified in an all-carriers approach to rate setting, there should be no

\textsuperscript{21} Telecom Decision CRTC 2008-14, para. 32.
\textsuperscript{22} The causal links in service costs among cost items categorized within either the access-driven or traffic-driven components of the service was identified in TO 2019-288 in relation to the costs of segmentation fibre for cable carriers (para. 156). In this case, it was found that since new segmentation fibre is installed when a new optical node is installed, and the optical node is traffic-sensitive (cost driver is usage), this indicates that the segmentation fibre is also traffic sensitive (usage cost driver).
competitive equity concern that would warrant the additional spreading of costs across retail IP-based services other than Internet using the Commission’s attribution factor.

35. Applying the methodology specified in the Regulatory Economic Studies Manual, the retail demands counted under the all-carriers approach for rate setting is the demand for the “wholesale service by the company as a service component in the provisioning of its retail services” – in other words, the retail-equivalent of the wholesale HSA service. In setting its proposed rates, TELUS applied the demands of its retail Internet service to approximate the demands for an equivalent retail HSA service. This is entirely reasonable and accurate because almost all end-users of retail HSA services have Internet service, and wholesale and retail services are not offered over the same DSL access or DSLAM port.

36. Since the all-carriers approach was correctly applied by TELUS, with the costs of access facilities equitably allocated across the retail and wholesale services, the Commission erred in overlaying an attribution factor that is unnecessary and not warranted and should vary TO 2019-288 so that the causal, incremental and prospective costs of the access facilities are fully attributed to the wholesale HSA service.

5.0 The Commission Erred in Fact and Law by Adjusting TELUS’ Cost Models to Impose Inaccurate Delays in the Cash Flow Timing of Capital Costs

5.1. The Commission Has Incorrectly Applied the Timing of Capital Costs

37. As outlined in the Regulatory Economic Studies Manual, a discounted cash flow methodology is used for the calculation of proposed service rates. TELUS adhered to this by accurately depicting when cash flows for capital expenses would occur to support both existing and new demands for the service. As explained below, it appears the Commission misinterpreted the labelling and use of a custom cash-flow timing parameter contained within the confidential electronic files submitted by TELUS. The Commission’s adjustments to this parameter caused inaccurate delays in the timing of cash flows for all capital costs and, in turn, incorrect calculation of the rates for the service. The Commission’s adjustment and the consequential errors are further explained below.

38. The Commission inappropriately adjusted all “OneTime” capital cash outflows to “Ongoing”, which inaccurately captures the timing of those cash flows. The Commission’s rationale for the adjustment was listed in Appendix 2 of TO 2019-288 as required because “[capital] expenditures are recurring throughout the year.” This is incorrect and the Commission’s adjustment creates inaccurate delays in cash outflows for all capital costs.

39. The Commission’s adjustment incorrectly represents the timing of cash flows for rate calculation on two aspects:

   (a) Regarding cash flows to serve existing service demands present at the start of the study period, the capital costs of the existing service demands should be registered entirely at the start of the study period since that is when the demands will be satisfied (not later in the year). By adjusting TELUS’ cost models from the “OneTime” to “Ongoing” setting, the Commission incorrectly delayed the cash outflows for capital costs to service existing demands by an average of 6 months.

   (b) Regarding cash flows to serve increases in demand over the study period, the timing of cash flows should take into consideration the lead-time required to augment capital equipment. In other words, the service provider pays for new capital equipment prior to when this equipment is used by the demand growth, because service providers must plan for growth and build their network capacity in anticipation of future growth. By adjusting TELUS’ cost models from the “OneTime” to “Ongoing” setting, the Commission incorrectly delayed the cash outflows for capital equipment to the time of first use by the growth service demand.

40. The adjustments in capital cost timing made by the Commission are invalid as a company such as TELUS clearly does not temporarily withhold services to pre-existing end-users of the service, nor take an unplanned approach by waiting for the growth in demand to actually occur prior to spending money to augment its network in response to this growth demand. To do so would cause temporary service unavailability, congestion in its network, and an inferior experience for its customers – all outcomes that TELUS spends money in advance to avoid.
41. To further explain this error, information is provided below on the fundamental method of regulatory economic cost studies, the reasoning for the timing of cash flows applied by TELUS, and the relevant parameters and settings used by TELUS in its associated confidential electronic file submissions. The explanation is concluded with a note on the working fill factor (“WFF”) to confirm that the issues raised are not otherwise covered by this related parameter in TELUS’ cost studies.

5.2. The Regulatory Economic Studies Manual Describes the Proper Approach for Depicting Timing of Capital Costs

42. There are two basic choices for depicting the timing of capital costs in financial analysis: (i) the timing of when cash transfers (outflows, in this case) occur, or (ii) the timing of when assets are used. The first of these choices is applied when performing economic assessments including economic discounted cash-flow analysis, whereas the second choice might be used in some form of accounting approach that adopts an accrual rather than a cash accounting method.

43. The basis of studies to devise regulated rates is aligned with an economic cash flow rather than an accounting methodology. The Regulatory Economic Studies Manual states that economic cost studies “are developed in accordance with generally accepted economic concepts and methods.” The Regulatory Economic Studies Manual describes a standard “cash flow approach” that recognizes the time value of money given that “dollars at one point in time cannot be compared directly with dollars at another point in time.” In relation to capital costs, these are described as “the cash outflow associated with the use of an asset by the service under the proposed course of action” [emphasis added]. In short, the correct approach for economic cost studies is to set the timing of capital costs according to when the cash outflows occur.

44. TELUS previously made this point in its response to request for additional information TELUS(CRTC)4Dec18-3 to Tariff Notice 542 (Introduction of a 150 Mbps wholesale

25 The Regulatory Economic Studies Manual, Section 1.2.2.
26 The Regulatory Economic Studies Manual, para. 1.2.2.
Internet ADSL service speed for residential and business services) issued on December 4, 2018. In this response it was explained that the method used by TELUS recognizes the cash flow in advance of the service utilization by an average of six months. This is due to the fact that capital items require lead time for provisioning related to planning, engineering, equipment purchase, and installation that occurs prior to the in-service commencement date and date of first utilization by the service. In other words, the method reflects that the outlays for equipment items occur prior to the date of first use. The six-month lead-time is a reasonable approach that accommodates the average actual timing of cash outflows for provisioning central office equipment, verified by internal subject-matter experts, and consistent with previous TELUS regulatory cost studies. Tangible evidence of the advanced timing of cash transfers prior to the in-service date is apparent from TELUS’ sizeable account of Assets Under Construction (“AUC”), which is a measure of cash outflows that do not yet represent installed capacity. As at September 30, 2019, TELUS’ AUC had a value of $1.07 billion, or 2.2 % of the total gross value of all TELUS assets in service.

45. To clarify, the method used by TELUS to calculate its proposed rates for the wholesale Internet ADSL service is explained further below.

46. The incremental growth in service demand applied in each year, \( t \), of the study period was calculated as follows:

\[
[\text{Incremental demand}]_t = [\text{Year} - \text{end demand}]_t - [\text{Year} - \text{end demand}]_{t-1}
\]

Where \( t \) = integer from 1 to 5.

47. The above formula produces an average incremental demand timing of mid-way through each year of the study period.\(^{28}\) To bring the cash flows forward by an average of six months and depict the pattern of cash transfers for capital equipment ahead of the service utilization date, the capital costs associated with the incremental demand growth (with an

\(^{28}\) The demands are assembled within the confidential electronic Excel files that include the term “Collator” in the file name.
average timing of midway through the year) were entered at the start of each year of the study period by using the “OneTime” setting in the discounted cash flow model29.

48. Additional clarification is required given the Commission’s apparent literal interpretation (and misinterpretation) of the “OneTime” label and its selection by TELUS. The “OneTime” setting does not mean that the capital expenditures were assumed to only occur one time or once in the year, rather than ongoing or recurring throughout the year, as per the Commission’s stated rationale for adjustment. Instead, the setting was applied to recognize the average within-year timing of the ongoing cash flows associated with an annual incremental demand measurement (results of the formula above). The timing of associated tax credits in the model is treated separately, with tax credits for capital expenditures registered upon service utilization (not six months in advance).

49. The issue of lead purchasing time was raised in multiple occasions in reference to WFF and the Commission has been consistent in not including an allowance for such a delay in this factor. In its latest decision on the matter, TO 2019-288, the Commission defined the WFF as follows:

The working fill factor (WFF) is a measure of the utilization of a shared facility and is used to recognize the non-working capacity and to apportion the cost of non-working capacity to the per-unit cost of the working capacity.

Working capacity is the capacity that is available to provide service to customers making use of the relevant facility. This includes all units that are potentially revenue generating, while non-working unit capacity is all other remaining units (e.g. units required for maintenance).30

50. As later confirmed in TO 2019-288, the WFF expressly does not include an allowance for the delay between the capacity/augmentation trigger point and the point when the capacity expansion is completed.31

29 TELUS’ discounted cash flow model is the Economic Analysis Standard Evaluation (EASE) tool.
31 TO 2019-288, paras. 71-72. See also Telecom Decision 2013-76, para. 19, where the Commission stated: “[the] capacity trigger point and WFF are not synonymous because the capacity trigger point … does not reflect the average measure of utilization whereas WFF does. There is typically a delay between the capacity
51. In its submissions, TELUS applied the standard WFF of 80% for routers and other electronic equipment. Since it is confirmed that this Commission-approved WFF does not incorporate an allowance for lead-times for capacity augmentation, TELUS’ approach of recording the timing of cash flows for capital equipment augmentation six-months in advance of the date of first service utilization does not present an issue of double-counting or repeated allowances.

52. In conclusion, TO 2019-288 should be varied to correct the Commission’s erroneous adjustments to the cash-flow timing of capital costs. TELUS requests that its proposed setting for the timing of capital costs (“OneTime” setting) be restored to reflect the practical timing of cash outflows required to support both existing and new end-users of the service.

6.0 Longer Periods of Retroactivity Are Problematic and Cause Regulatory Uncertainty

53. The Commission applied the final rates retroactively to March 2016, despite having recognized that retroactive ratemaking introduces regulatory uncertainty.\(^\text{32}\) On that point, the Commission is undoubtedly correct: retroactive ratemaking destabilizes the regulatory climate and unnecessarily increases the risk to future investments.

54. The Commission’s decision to apply the final rates retroactively to 2016 is bad policy for three reasons. First, it penalizes facilities-based carriers for making sustained broadband investments during the time interim rates were in place. During this time, facilities-based carriers continued to invest heavily in communications infrastructure throughout the country. By ordering the rates retroactive to 2016 and ordering a one-time retroactive payment in the hundreds of millions of dollars, the Commission in effect told facilities-based carriers they were wrong to have invested, and instead should have waited three years to make that determination. Had facilities-based carriers waited for three years to invest, the result would have been dramatically poorer broadband deployment.

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\(^{32}\) Review of costing inputs and the application process for wholesale high-speed access services, Telecom Decision CRTC 2016-117, at para. 105.
55. Second, there is no corresponding benefit to consumers from the retroactive payment. Resellers—who by their very business model do not invest in new facilities in any way comparable to facilities-based carriers—are under no obligation to use the retroactive payments to offer rebates to their customers, and have given no indication that they intend to do so. Instead, resellers will enjoy a windfall, lining the pockets of their owners at the expense of their customers and facilities-based carriers.

56. Third, retroactivity promotes regulatory uncertainty, and as a result, increases the risk associated with future investments. In 1989, the Supreme Court of Canada confirmed the authority of the Commission to issue retroactive rate orders. In its decision, the Supreme Court held that “the added flexibility provided by the power to make [retroactive] interim orders is meant to foster financial stability throughout the regulatory process. [emphasis added]” Here, the Commission has used its power to engage in retroactive ratemaking to the exact opposite effect, not in service of stability, but rather in direct conflict with it. Without regulatory stability, access to capital markets will be compromised. Investment in communications infrastructure requires ready access to third-party investors (either via bonds or equity issues). Canadian companies must already compete in the global capital market for such large investment funds. Investors will shy away from the Canadian telecommunications industry if they cannot rely on a stable regulatory framework that promotes economic efficiency. As noted by TD Securities, “If Canada continues down this path of not only mandated access, but also seemingly very low rates [...] valuations and access to capital for Canadian telecoms are likely to suffer.” The Competition Bureau similarly stated that “[t]he uncertainty associated with longer regulatory reviews can have significant negative effects on the marketplace, whereby both wholesale-based and facilities-based competitors are equally unsure of how regulatory rules will be established, and what impacts these rules may have on their businesses.”

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33 CRTC v. Bell Canada [1989] 1 SCR 1722 (emphasis added). The 2006 Policy Direction similarly requires the Commission “to use only tariff approval mechanisms that are as minimally intrusive and as minimally onerous as possible.”

34 TD Securities Inc., Has the CRTC Gone Too Far?, August 20, 2019.

35 Competition Bureau Report, p. 56.
wrote that “[a]t a high level, one of the best ways to ensure vigorous competition in broadband services is […] working to minimize regulatory uncertainty”.

57. These negative consequences are compounded by the fact that the Decision took three years to set the final rates. When the Commission first set the interim rates in 2016, the Commission stated that it would “assess the extent to which, if at all, retroactivity will apply when new cost studies are submitted in support of revised wholesale HSA service rates.” The new cost studies were submitted in 2017, yet the Commission failed to make a decision until August 2019.

58. Former Commission chairman Konrad von Finckenstein, in an article focused on TO 2019-288 stated that “the regulated telecom carriers require a predictable environment” to “make forward-looking investments to expand their business and keep up with technological innovations.” He further highlighted the issue of retroactivity in relation to the time that it takes the Commission to reach a decision when he said, “If [the Commission] had done the decision quickly, no problem with retroactivity. It took them three years to do that. You are now rolling things back three years. People have built a business case on this.” [emphasis added]

59. Retroactive ratemaking—especially with a three-year time lag—is destructive to investment, without any corresponding benefit to customers, and TO 2019-288 should be varied to remedy this problem.

7.0 The Commission Failed to Recognize a Basic Principle by Applying the Reduction in Markup Retroactively

60. In any event, the Commission has failed to recognize a basic principle by removing the 10% supplementary markup that was recovered as part of the interim rates prior to the final rate order. In TO 2019-288, the Commission approved new rates for TELUS’ wholesale

36 Competition Bureau Report, p. 56.
37 Review of costing inputs and the application process for wholesale high-speed access services, Telecom Decision CRTC 2016-117, at para. 105.
38 Von Finckenstein, Konrad., The CRTC Should Revisit Part of Its Wholesale ISP Decision, CARTT.ca, September 2, 2019.
39 Karadeglija, Anja., Incumbent reaction to wholesale rates warning shot for fibre, conference hears, thewirereport.ca, September 6, 2019.
HSA services that included a 10% reduction in markup from 40% to 30%. The rates were then made retroactive, meaning that the change in markup is also to be applied retroactively. The result is that the markup, a fundamental parameter that was set by the Commission in TRP 2010-632 and relied upon by TELUS since that date, has been unfairly rescinded. There is a direct Commission precedent that states that changes to the markup should only be made on a prospective basis.

7.1. Changes to Markup Should Only Be Prospective

61. There is an important distinction between markup and costs, as previously recognized by the Commission. As the Commission mentions in TO 2016-396, “service rates are set based on Phase II costs plus a specified markup,”40 where “markup is the amount that is added to the Commission-approved costs … [to contribute] towards the company’s fixed and common costs and a profit margin.”41 This distinction is also apparent in an earlier note that determining the level of markup “is a decision related to pricing rather than costing.”42 While service providers are responsible for the correct application of cost methodology assumptions and assembly of costs in their cost study submissions, the markup is an external parameter that is set by the Commission. TELUS calculated its proposed rates based on the specified, Commission-approved markup.

62. The distinction between markup and costs assists in explaining why the retroactive change to markup levels applied by the Commission is both unreasonable and unprecedented. Previously, when changes to markup were contemplated by the Commission, there was a thorough review of the markup and any changes were implemented on a prospective basis only.

63. The change in the markup for local loops in 2002 provides an example where the Commission refrained from retroactive application of final rates, while also providing early communication and a process that enabled thorough review prior to the change. The first notice of a pending change in the markup for the service was signaled in Telecom Decision

40 TO 2016-396, para. 15.
41 TO 2016-396, footnote 9.
42 Telecom Decision CRTC 2002-34, para. 201.
Changes to the contribution regime.\textsuperscript{43} The consultation process then started with Public Notice CRTC 2001-37, where the Commission invited proposals to changes to loop rates, including the markup.\textsuperscript{44} The matter was raised again in Telecom Decision CRTC 2001-238, wherein the markup for loops was maintained and comments were invited as to why the markup should not be changed.\textsuperscript{45} This process culminated in Telecom Decision CRTC 2002-34, whereby the markup for certain services was reduced on a going-forward basis only. This example of orderly, prospective application of changes to markup supports an environment of regulatory and investment certainty as wholesale service providers are informed of the “rules of the game” prior to making investment decisions.

In a more recent example, a change in markup was implemented in Telecom Decision CRTC 2013-73 in relation to the wholesale HSA service rates. While the Commission decided to apply rate changes to residential services retroactively, the rate changes for business services were only applied as of the date of the decision. The distinguishing factor was that changes for the residential rates were due to costing while the changes to the business rates were due to a change in the markup. As a result, the Commission did not “consider it necessary or appropriate to apply retroactively the changes to business wholesale HSA service rates, as these changes were not the result of costing errors”\textsuperscript{46} [emphasis added] and proceeded to apply the markup change as of the date of the decision. This same principle should be applied to the changes made in TO 2019-288.

The issues raised in TNC 2015-225 and later ruled on in TD 2016-117 did not include markup, and it is noticeably absent from the list of included issues in TD 2016-117.\textsuperscript{47} The markups were maintained by the Commission in TO 2016-396 when the Commission set the revised interim rates, and again, there was no discussion of a possible revision to the markup. The issue of markups was only introduced in a follow-up request for information

\textsuperscript{43} As cited in para. 61, Telecom Decision CRTC 2001-238.
\textsuperscript{44} Public Notice CRTC 2001-37, para. 22.
\textsuperscript{45} TD 2001-238, para. 63.
\textsuperscript{46} Telecom Decision CRTC 2013-73, para. 109.
\textsuperscript{47} TD 2016-117, para. 11.
issued late in the process on March 2, 2018. In its response, TELUS emphasized the importance of maintaining the markup over the full duration for which the service is mandated. Requiring the change in markup to be retroactive back to 2016 is particularly grievous given the issue was not mentioned until several years later.

66. The retroactive application of the change in markup raises concerns and causes much uncertainty for the future investment climate for telecommunications in Canada. There can be no assurance in the markup and investment rates of return when the regulator demonstrates its willingness to change the markup without proper review, and applies this change retroactively over a period for which the pending policy change was unannounced. Therefore, following past Commission precedent on this issue and if the Commission does not eliminate the retroactive application of the rates in entirety, the reduction in the markup to 30% should only be applied prospectively from the date of the order, August 15, 2019, with retroactive rates recalculated to maintain the pre-existing markup of 40%.

8.0 Conclusion and Relief Sought

67. TELUS requests that the Commission review and vary its determinations related to the application of the attribution factor, the timing of CAPEX adjustments and requirement for retroactive application of rates, specifically the markup. The Commission should vary TO 2019-288 by:

(a) eliminating the attribution factor to allow 100% of the access costs to be attributed to the wholesale HSA service;

(b) restoring the setting for the timing of capital costs (“OneTime” setting) in TELUS’ submitted cost model to reflect the practical timing of cash outflows required to support both existing and new end-users of the service;

(c) removing the retroactive application of the rates, so that rates are applied prospectively from the date of the decision, August 15, 2019; and

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48 Request for information TELUS(CRTC)2Mar2018-2.
(d) if the Commission does not remove the retroactive application of the rates entirely, then at a minimum, the change in markup to 30% should only be applied prospectively from the date of the decision.

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