Petition to the Governor in Council
pursuant to Section 12 of the Telecommunications Act

Re: Telecom Order CRTC 2019-288
Follow-up to Telecom Orders 2016-396 and 2016-448 – Final rates for aggregated wholesale high-speed access services

By:

Bragg Communications Incorporated
(carrying on business as Eastlink)

Cogeco Communications Inc.

Rogers Communications Canada Inc.

Shaw Communications Inc.

Videotron Ltd.

13 November 2019
Executive Summary

Canada’s major Cable Carriers (Eastlink, Cogeco, Rogers, Shaw and Videotron) file this Petition pursuant to section 12 of the Telecommunications Act to request that the Cabinet order the CRTC to reconsider its August 15, 2019 decision concerning wholesale internet access rates (Telecom Order CRTC 2019-288).

The Government of Canada has made it a priority to expand broadband infrastructure and high-speed internet access to all Canadians. Access to high-speed internet services is critically important to Canada’s economy, as well as to the ability of Canadians to live, work and socialize with each other and to participate fully in society. In connecting Canadians from coast to coast, and driving economic development and innovation, the expansion of high-speed internet access is as important to Canada today as construction of railways was more than a century ago.

The Cable Carriers are proud of the world-leading high-speed internet infrastructure they have built. They compete vigorously with the telephone companies to design, finance and build ever faster, more advanced and innovative networks. Moreover, they provide internet access to consumers at rates that The Economist Intelligence Unit ranks as first overall in affordability worldwide.

The CRTC has required the Cable Carriers and telephone companies to provide wholesale access to their networks to internet service providers who do not have their own network infrastructure (“Resellers”). The CRTC’s purpose in doing so was to provide greater retail price competition and, over time, to promote network construction by Resellers. Although the first goal has been achieved, the second has not.

The Cable Carriers are not asking the Cabinet to eliminate the CRTC’s regime for wholesale access. However, the CRTC’s decision of August 15, 2019 fundamentally disrupts the regime by promoting the financial interests of Resellers above all else. For this reason, the CRTC should be required to reconsider its decision in order to ensure that it takes a balanced approach to achieving the Government’s key public policy objectives: affordability, competition, investment, innovation and the expansion of high-speed internet access to rural, remote and Indigenous communities.

If left unchanged, the CRTC’s August 15, 2019 decision will seriously undermine the Government’s policy objectives:

- by reducing wholesale rates payable by Resellers to Cable Carriers by 15 to 77%, the decision reallocates industry revenues away from network builders to resale marketers;
- by making the wholesale rate reductions retroactive to 2016, and not requiring Resellers to invest in infrastructure, the decision creates a massive windfall for Resellers with no benefits for consumers or incentives to upgrade Canada’s broadband infrastructure;
- by not recognizing that Resellers have increased their market share to between 16% and 18.6% in the major markets they choose to compete in, and nearly 50% or more in certain other markets, the decision gives a huge regulatory boost to Resellers at a time when they do not need it – they are already competing effectively under the existing wholesale rates;
by requiring Cable Carriers to make their high-speed networks available to Resellers at below-cost wholesale rates, and doing so before any rates have been imposed on telephone companies’ fibre-to-the-home networks outside Ontario and Quebec, the decision creates a grossly unfair competitive disadvantage to Cable Carriers compared to the telephone companies (particularly in Western and Atlantic Canada);
by creating flat wholesale access rates for all broadband speeds, the decision removes the financial capability of and incentives for Cable Carriers to invest in and introduce higher speed broadband services;
by undermining the Cable Carriers’ investments in infrastructure, the decision threatens the ability of the Cable Carriers to maintain current levels of employment of engineers, technicians and other Canadians whose skills are necessary to build, expand and improve wireline networks;
by deterring investment in technologically advanced wireline infrastructure, the decision threatens the successful implementation of 5th Generation (5G) wireless networks in Canada;
by reducing available revenues and reallocating market share to Resellers, the decision will reduce the Cable Carriers’ operating margins by an amount that translates to as much as 54% of their planned investments in expanding and improving their broadband networks over the next five years (as demonstrated in the economic analysis attached to this Petition as Appendix “A”)
• as a result, the Cable Carriers’ business case to invest in network expansion to many rural, remote and Indigenous communities will become unviable.

The Cable Carriers therefore ask the Cabinet to order the CRTC to reconsider its August 15, 2019 decision in conjunction with the CRTC’s previously announced review of the entire wholesale regulatory framework. We also ask that the Cabinet order the CRTC to take Canada’s broader telecommunications policy objectives into account as part of the reconsideration and review. Finally, we ask that the Cabinet vary the August 15, 2019 decision by cancelling the windfall granted to the Resellers and making the final wholesale rates that the CRTC establishes, after reconsidering its decision, applicable only on a forward-looking basis. This will substantially reduce the unfortunate regulatory uncertainty to which the decision has given rise.
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A. Overview

1. Bragg Communications Incorporated (“Eastlink”), Cogeco Communications Inc. (“Cogeco”), Rogers Communications Canada Inc. (“Rogers”), Shaw Communications Inc. (“Shaw”) and Videotron Ltd. (“Videotron”) submit this Petition to the Governor in Council pursuant to section 12 of the Telecommunications Act. The Petitioners (collectively, the “Cable Carriers”) respectfully request that the Governor in Council refer Telecom Order CRTC 2019-288, issued on August 15, 2019 (the “CRTC Order”), back to the Canadian Radio-television and Telecommunications Commission (the “CRTC”) for reconsideration.

2. The Cable Carriers provide high-speed internet access services to more than 6.9 million Canadian households and businesses across the country, including in rural, remote and Indigenous communities.¹ They do so using physical networks that they have built, maintained and upgraded over many years, at a cost of tens of billions of dollars, as a competitive alternative to services offered by incumbent local exchange carriers (“Telephone Companies”). Because of the Cable Carriers’ investments in this infrastructure and owing to vigorous competition among various facilities-based providers (principally, the Cable Carriers and Telephone Companies), consumers in Canada enjoy reliable and high-quality broadband access.

3. The Government of Canada has made it a priority to expand broadband infrastructure across Canada, and with it access to the internet. In so doing, the Government has focused quite properly on rural, remote and Indigenous communities that are currently underserved. The Government has also recognized the fundamental importance of investing in innovation in telecommunications services, in order to keep Canada at the leading edge of the global digital

¹ This figure is based on the public filings of Cogeco, Rogers, Shaw and Videotron. As a privately held company, Eastlink does not disclose this information.
economy. The Cable Carriers wholeheartedly endorse both of these objectives, and believe that they and other private sector actors have an important role to play in helping to achieve them.

4. It is for this reason that the CRTC Order is a source of such profound concern to the Cable Carriers, as it should be to this Government and ultimately to all Canadians. While the CRTC surely did not intend such a result, the CRTC Order undermines significantly the Government’s own policy goals and the objectives set out in section 7 of the Telecommunications Act, and is inimical to the long-term interests of Canadians. It is particularly damaging to the interests of rural, remote and Indigenous communities, whose future access to broadband wireline internet is jeopardized by the CRTC Order.

5. The CRTC Order establishes new wholesale rates that the Cable Carriers are permitted to charge third-party internet service providers that enjoy mandated access to the Cable Carriers’ networks. These third parties effectively resell to consumers high-speed internet access provided by the Cable Carriers and for that reason are frequently referred to as “Resellers”.

6. The new wholesale rates established in the CRTC Order are radically lower than those that have applied since 2016, and will require Cable Carriers to offer Resellers broadband access that can be resold to consumers at rates below the Cable Carriers’ own costs. Affordability and consumer choice are undoubtedly important. But so is the need for Cable Carriers to finance investment in network infrastructure, particularly in rural, remote and Indigenous communities. The CRTC Order undermines the ability of the Cable Carriers to invest in broadband infrastructure at a time of rapid technological advancement. Canada can ill-afford to fall behind its international peers.
7. The Cable Carriers are not asking the Governor in Council to eliminate the wholesale high-speed access regulatory framework. Nor are they asking the Governor in Council to establish wholesale rates that are unduly favourable to the Cable Carriers. Rather, the Cable Carriers are simply requesting that the appropriate balance among the Government’s public policy objectives be restored. This can be achieved by referring the CRTC Order back to the CRTC for reconsideration, in conjunction with a broader review of the applicable regulatory framework that the CRTC already intended to conduct at the time it issued the CRTC Order.

8. Moreover, the Cable Carriers are requesting that in referring the CRTC Order back to the CRTC, the Governor in Council emphasize the importance of achieving a regulatory framework that does not artificially favour Resellers, that enables the Cable Carriers to finance broadband expansion to rural and remote areas, and that establishes wholesale rates at levels that will ensure affordability for consumers while at the same time encouraging the investment and innovation necessary to drive Canada and Canadians into the technological future.

B. Background

(i) Broadband Internet Access in Canada

9. Most Canadians obtain broadband internet access in their homes and in their businesses by connecting a modem to a coaxial cable, copper wire or fibre optic cable in their premises. In doing so, they connect to and make use of physical networks built largely by the Cable Carriers and Telephone Companies. Those “wireline networks” (as opposed to the wireless networks that provide mobile communications) are made up of complex infrastructure that was and is extraordinarily expensive to build, maintain and upgrade. The Cable Carriers and other telecommunications companies that provide broadband internet services to consumers by building wireline networks are frequently referred to as “facilities-based competitors”.
10. Facilities-based competitors play an essential role in connecting Canadians to the internet. As the Competition Bureau noted in its recently-published Report concerning broadband services in Canada, it is facilities-based competitors that “determine the robustness, speed, and reliability of Canada’s networks”. The Competition Bureau observed that facilities-based competitors:

serve the significant majority of Canadians, while at the same time making the substantial investments necessary to deploy, maintain, and upgrade the physical networks that connect Canadian homes to the internet. These competitors engage in an important form of dynamic competition, working to outdo each other in order to offer the highest speeds and most reliable networks.

11. Over the past 10 years, the six largest facilities-based competitors in Canada have invested more than $67 billion to maintain, upgrade and expand their wireline networks. In 2017 alone, internet service providers made almost $10 billion in investments in wireline infrastructure. Canada is an international leader in terms of private sector investment in the expansion and improvement of connectivity.

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According to the Organisation for Economic Co-operation, Canada places fourth in the world in its investment in telecommunications as a percentage of revenue.\(^6\)

12. The Cable Carriers’ level of investment has been particularly extraordinary. The CRTC’s own data demonstrates that cable-based carriers have invested as much as 47 cents of every dollar of annual revenues earned from their wireline businesses back into their wireline facilities.\(^7\)

13. Facilities-based competitors innovate by creating higher speed services, developing and deploying enhanced and multiple access technologies (such as “Wi-Fi” networks), and developing technologies to enhance network capacities, lower latency,\(^8\) and increase speed (among many other innovations).

14. The commitment of the facilities-based competitors to investing in infrastructure and innovation has resulted in world-class wireline networks that deliver high quality broadband services to Canadian consumers. Based on data from September 2019, Canada now ranks 11\(^{th}\) in the world in average download and upload speeds, an incredible achievement given our geography and dispersed population.\(^9\) Moreover, those speeds have improved rapidly, increasing

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\(^7\) Canadian Radio-television and Telecommunications Commission, *Communications Monitoring Report 2018*, Figure 4.6, p. 103 <https://crtc.gc.ca/pubs/cmr2018-en.pdf>. This exceeds the capital intensity of the mining, oil and gas extraction sector, and is second among all Canadian “utilities”.

\(^8\) Latency refers to the delay between the time an instruction to transfer data is given and the time the data transfer actually begins.

by more than 42% from the same period in 2018. Notably, the four largest Cable Carriers are also the four fastest providers.

15. In building, maintaining and upgrading their wireline networks, facilities-based competitors have had a significantly positive impact on the Canadian economy. Thousands of jobs and billions of dollars in Gross Domestic Product are directly attributable to the wireline industry, to say nothing of the indirect positive impacts that high-speed internet access (and the infrastructure that makes it possible) has had and will continue to have on all other sectors of the economy and on the social welfare of Canadians.

16. The capital investments made by facilities-based competitors involve much more than purchasing equipment. A large percentage of the spending on any capital project consists of expenditures on engineers, technicians and other highly-skilled workers who make sure that the project aligns with a given carrier’s network development strategy and install, configure and test the equipment in question. If capital projects were to be scaled back or cancelled, there would be less work for these highly-skilled and educated employees to do, and at some point the facilities-based competitors would no longer be able to retain them. This would result in a loss of valuable employment opportunities for middle-class Canadians, including younger Canadians who are graduating from universities and technical colleges across the country.

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11 Ookla, “Speedtest Report for Canada, October 23, 2019 (Fixed)” <https://www.speedtest.net/reports/canada/#fixed>. The four Cable Carriers in question are Cogeco, Rogers, Shaw and Videotron. Eastlink believes that the speed of its network was not tested.

12 According to ISED’s Canadian ICT Sector Profile 2018, the information and communications technology sector contributed $86.5 billion in GDP in 2018, of which approximately 38.7% or $32.3 billion was attributable to communication services. (Innovation, Science and Economic Development Canada, Canadian ICT Sector Profile 2018), p. 4, <https://www.ic.gc.ca/eic/site/ict-tic.nsf/Vwapj/ICT_Sector_Profile2018_eng.pdf/$file/ICT_Sector_Profile2018_eng.pdf>.
17. The Cable Carriers’ investments are – and will continue to be – essential to Canada’s economic and social well-being. If Canada is to succeed in the digital age, there is a critical need for substantial broadband investments so that everyone in this country (including residents of rural, remote and Indigenous communities) can enjoy high-speed internet access at reasonable rates. Investment in broadband networks will support economic and job development. Moreover, 5G technologies (which are dependent on having strong and modern wireline networks, as discussed in paragraph 133 below) will support climate change action through Smart City initiatives that monitor and reduce carbon footprints.

18. The longstanding approach of the Government of Canada has been to encourage private sector investment in the expansion and improvement of wireline networks, supplementing private sector investment with public funding only where there is no business case for private sector involvement. It is therefore important to ensure that the business case for private investment is not eroded by setting wholesale rates at levels that are below the costs the Cable Carriers incur in providing high-speed internet access services.

19. Such private sector investment can only be made in circumstances where the Cable Carriers are confident that they will not only be able to recover their costs, but will also achieve a reasonable return that reflects the risks associated with their investment. Building, maintaining and upgrading networks is capital intensive, and it often takes more than ten years for facilities-based competitors to recover such investments.13 This is a long payback period. Accordingly, a viable business case for proposed network expansions and improvements only exists if the investment in question is expected to lead to predictable, long term profitability. This is

particularly so given that the Cable Carriers already incur very substantial capital expenditures to keep their current networks running smoothly and meet consumers’ increasing consumption of bandwidth.

20. Investments in expanding wireline infrastructure to rural, remote and sparsely populated areas of the country are particularly risky from the perspective of the Cable Carriers. The increased costs associated with serving these areas, and their smaller market sizes relative to larger cities, means that the business case for investing in networks in such communities will frequently be more marginal than the business case for investing in networks in urban areas. As a result, investments to expand broadband access to underserved communities are those most likely to become economically and commercially unjustifiable as investment risk increases.

21. This assessment of the business case for a potential investment is not an optional exercise: it is required by stringent fiduciary duties and duties of care that Canadian law imposes on senior executives and directors who are charged with the responsibility of acting in the best interests of the companies they are responsible for managing. This reality was acknowledged by Pamela Miller, the Director General of the Telecommunications and Internet Policy Branch at Innovation, Science and Economic Development Canada (“ISED”), in May 2017:

[W]e anticipate the private sector will continue to lead the way in terms of broadband investment. This approach has served Canada to date and we expect this to continue. We will be supplementing private sector investment where the business case does not exist.\(^{14}\) [emphasis added]

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22. Two other features of the Canadian market for broadband internet access services are particularly important to understand. 

*First*, the market is – and has been for several years – characterized by vigorous and effective competition as well as significant consumer choice. The Competition Bureau has found that “Canadian consumers are generally happy with both the performance of their existing internet service provider, and their choice among providers where they live”. *Second*, internet access is generally affordable in Canada. The 2017 Federal Budget noted that, according to the Economist Intelligence Unit, Canada ranks first overall among 75 countries in terms of internet affordability. The most recent 2019 ranking again confirmed Canada’s first place ranking.

(ii) **The Cable Carriers**

23. The Cable Carriers provide broadband internet access services to consumers via wireline networks that include coaxial cable technologies. Other facilities-based competitors, including Bell Canada and TELUS Communications, have traditionally connected consumers to the internet via copper telephone lines, and for that reason are referred to in this Petition as

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18 See The Economist’s “The Inclusive Internet Index 2019” [https://theinclusiveinternet.eiu.com/explore/countries/CA/performance/indicators/availability]. Note that “affordability” is based on the cost of internet access relative to income levels, and accounts for the level of competition in the internet marketplace.
“Telephone Companies”. Both the Cable Carriers and the Telephone Companies are increasingly using more advanced fibre optic technologies in different parts of their networks.

24. As stated above, the Cable Carriers together provide broadband internet access services to millions of households across Canada, from Vancouver Island all the way to Newfoundland and Labrador. They typically compete for subscribers with the dominant Telephone Company in their respective service areas, as well as with an increasing number of Resellers.

25. Eastlink is a family-owned business and the smallest of the Cable Carriers. It serves consumers spanning all of Nova Scotia and Prince Edward Island, and parts of five other provinces. Eastlink focuses on building networks in rural, remote and less densely populated areas. Specifically:

(a) in Newfoundland and Labrador, the company serves smaller, rural communities as well as more remote communities such as Happy Valley, Goose Bay and Fogo Island (the latter of which is so remote that Eastlink employees have to fly in to maintain the company’s facilities). The company does not provide residential internet services in St. Johns, which is the most populous city in the province;

(b) in New Brunswick, the company serves Sackville and Port Elgin;

(c) in Ontario, the company serves smaller communities in the southwestern, southeastern and northern regions of the province, as well as Sudbury (which is one of the two largest serving areas in the company’s network, with Halifax being the other);

(d) in Alberta, the company serves areas such as Whitecourt, Slave Lake, Grand Prairie and Peace River. The company does not serve Calgary, Edmonton or other more populous areas of the province; and

19 The CRTC typically refers to the Telephone Companies as incumbent local exchange carriers, or “ILECs”.

20 In Quebec, Ontario, Atlantic Canada and Manitoba, the dominant Telephone Company is Bell and its subsidiaries. In British Columbia and Alberta, the dominant Telephone Company is TELUS. In Saskatchewan, the dominant Telephone Company is SaskTel.
in British Columbia, the company serves areas such Oliver, Osoyoos, Pender Harbour, Sechelt and Gibbons. The company does not serve Vancouver, Victoria or other more populous areas of the province.

26. Cogeco offers broadband internet services in Québec and Ontario, but does not serve major urban markets such as Montréal and Toronto. Instead, the company’s wireline networks serve consumers in smaller, regional communities. In Québec, Cogeco’s wireline networks serve customers in communities on the North Shore (such as Baie-Comeau and Sept-Îles) and in the Gaspé Peninsula (such as Chandler and Gaspé). In addition, Cogeco serves mid-sized communities such as Trois-Rivières, Drummondville and Saint-Hyacinthe, and a number of smaller communities in the Laurentians north of Montréal. In Ontario, Cogeco provides broadband services along Highway 401 to the east of the Greater Toronto Area from Brockville to Port Hope, and to the west of the Greater Toronto Area from Burlington around the Golden Horseshoe to Niagara Falls and throughout Southwestern Ontario in the communities of Chatham, Windsor and Leamington.

27. Rogers is the largest of the Cable Carriers. It has built extensive wireline networks in Ontario, New Brunswick and Newfoundland and Labrador, with a service territory covering approximately 4.4 million homes. In particular, Rogers serves:

(a) communities of all sizes in Southwest Ontario, ranging from London and Kitchener-Waterloo to Brantford and Woodstock to smaller communities such as Tilsonburg and Strathroy;

(b) the bulk of the Greater Toronto Area, as well as communities further north all the way up to Midland and Owen Sound, including small communities like Kincardine and Pefferlaw;

(c) the Ottawa region and surrounding communities;

(d) all of New Brunswick (except the two towns served by Eastlink), including communities as small as 200 homes; and
(e) St. John’s, Gander, Grand Falls-Windsor, Corner Brook, Deer Lake and other communities in Newfoundland and Labrador.

28. Videotron, a subsidiary of Quebecor Media Inc., is the largest internet service provider in Québec. It also serves several communities in eastern Ontario. Videotron’s cable network stretches across a vast array of urban, suburban, rural and remote territories, from large cities such as Montréal, Québec, Gatineau and Sherbrooke to small communities such as Maniwaki, Black Lake, La Doré and Chute-aux-Outardes.

29. Videotron provides wireline internet services in almost all of the administrative regions of Québec, including Outaouais, Laurentides, Lanaudière, Montréal, Laval, Montérégie, Mauricie, Centre-du-Québec, Estrie, Capitale-Nationale, Chaudière-Appalaches, Saguenay-Lac-St-Jean, Bas-St-Laurent and Côte-Nord. The Videotron wireline network currently reaches more than 2.9 million homes and businesses.

30. Shaw provides broadband internet services to more than 2 million residential and business customers in five provinces from Victoria to Sault Ste. Marie. It is the largest cable-based internet service provider in Western Canada and the Prairies, and also serves communities in Northern Ontario. Shaw’s facilities cover highly variable terrain (including ocean cable lines, mountains, Prairies and the north) and a variety of community types (including large cities like Vancouver, Calgary and Winnipeg, mid-sized cities like Red Deer and Nanaimo, and small rural towns or remote communities like Powell River, The Pas and Bowen Island).

31. Shaw has also partnered with more than 100 municipalities to create Shaw Go WiFi, which provides broadband internet access for free at 110,000 access points in local community facilities across Canada. In addition, Shaw continues to invest in expanding the reach and resilience of broadband connectivity in Canada. As part of the Connect to Innovate and
Connecting British Columbia programs (see paragraphs 93 and 94 below), Shaw has designed and is building high-capacity fibre network infrastructure that will connect 16 underserved communities (including six Indigenous communities) and five institutions. Expanding the reach of Shaw’s wireline network will empower Indigenous and other local groups, while providing the backbone to stimulate further investment in local broadband access networks.

(iii) The Wholesale High-Speed Access Regulatory Framework

32. In 1994, the CRTC established a new regulatory framework for the telecommunications industry whereby facilities-based carriers were required to provide access to their network infrastructure to other market participants. The CRTC made clear that the purpose of mandating access was to incentivize competition and remove barriers to entry in the telecommunications industry, with a view to allowing all Canadians “affordable access to an increasing range of competitively provided basic and advanced information and communications products and services to serve increasingly diverse user requirements”. In creating this regime, the CRTC affirmed its commitment to enhancing consumer access to next-generation, innovative technologies.

33. In 1998 and 1999, the CRTC issued decisions mandating that the Cable Carriers (excluding Eastlink) provide access to their wireline networks to third parties on a wholesale basis. The 1999 decision established that these third parties can resell this high-speed internet

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access to retail consumers, in direct competition with internet access services offered by facilities-based competitors.24

34. In the period since 1999, the CRTC has revised this regulatory framework by issuing various policies, decisions and orders. The high-speed access services that facilities-based competitors currently provide to Resellers are considered to be “aggregated”, because each of the facilities-based carriers route all the Reseller traffic they carry over their networks to a single provincial point of interconnection.25 By contrast, “disaggregated” high-speed access services involve multiple points of interconnection. The CRTC Order addresses aggregated services. Aggregated and disaggregated services together are, in plain terms, the broadband services that connect Canadian consumers to the internet.

35. The CRTC establishes the wholesale rates that the Cable Carriers are permitted to charge to Resellers for high-speed internet access. The CRTC does so by using a methodology known as “Phase II Costing,” and applying that methodology to “cost studies” submitted to the CRTC by the Cable Carriers. This methodology is supposed to produce wholesale rates at levels that enable Cable Carriers and Telephone Companies to recover their costs. This Phase II methodology is also intended, at least in part, to incentivize facilities-based competitors to continue to invest in the expansion and technological advancement of their wireline networks, and to compensate them for the risks associated with these very considerable investments.26

25 The process for implementing disaggregated wholesale services has been slow since the 2015 decision, with final wholesale rate pending in Ontario and Quebec while no formal rate-setting process initiated outside of Ontario and Quebec.
36. The wholesale rates set by the CRTC Order consist of two components: an “access rate” and a “capacity rate”. The access rate reflects the fee charged per end-user for monthly access to the network, while the capacity rate is charged for every 100 Mbps of bandwidth consumed.

37. Unfortunately, this rate-setting process does not always work properly or in the intended manner. There is a serious disconnect between the Phase II Costing methodology employed by the CRTC and the way in which the Cable Carriers actually deliver modern broadband services to consumers. The Phase II Costing methodology and the associated Costing Manuals were developed by the CRTC in 1979 in order to establish appropriate rates for new services delivered over the copper wire technologies traditionally used by the Telephone Companies. At the time, the internet did not even exist and the Cable Carriers’ only business was delivering television signals. However, the CRTC expects the Cable Carriers’ cost studies to comply with principles and methodologies set out in these Costing Manuals, which were last updated in 2013. Unlike in the case of the Telephone Companies, the CRTC has never approved a Costing Manual that takes into account the technologies that the Cable Companies use to deliver broadband internet access services to Canadian consumers.
38. The regulatory framework for aggregated high-speed access services does not require Resellers to build their own wireline networks. This means that Resellers can price their offerings to retail consumers based on internal marketing, sales and billing costs incurred by Resellers, plus the costs of buying access to the wireline networks of facilities-based competitors at wholesale rates. Resellers do not have to incorporate into their prices the costs associated with maintaining, expanding or improving their own national network infrastructure, for the simple reason that they do not have their own national network infrastructure. Moreover, because the wholesale rates established in the CRTC Order are below the Cable Carriers’ costs (as discussed below), Resellers can make pricing decisions without having to account for the full costs associated with the Cable Carriers’ wireline networks.

(iv) Resellers

39. Today, there are dozens of Resellers that sell high-speed access services to consumers in direct competition with the Cable Carriers and Telephone Companies. There can be no dispute that Resellers have thrived under the existing wholesale rate regime. The Competition Bureau’s recent Report notes that Resellers now provide services to more than 1 million households in Canada, with their overall national market share growing from less than 6% to approximately 13% in the last 10 years.27 The overall market share of Resellers in the more profitable markets

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of Toronto, Hamilton, Southern Ontario, Ottawa and Montreal, where they have focussed their sales and marketing efforts, is in the range of 16% to 19%. Indeed, the Cable Carriers’ current experience is that Resellers now enjoy market shares up to 66% in some communities.

The overall market share of Resellers in the more profitable markets of Toronto, Hamilton, Southern Ontario, Ottawa and Montreal, where they have focussed their sales and marketing efforts, is in the range of 16% to 19%.

40. In short, the competitive position of Resellers in the markets on which they have chosen to focus is strong and growing, without the benefit of the dramatic reduction in rates that the CRTC Order would impose. This is clear from the charts reproduced below, which are taken from the Competition Bureau’s recent Report:


Resellers focus their efforts on: (i) buying wholesale access to the wireline networks of facilities-based competitors at wholesale rates determined by the CRTC; (ii) marketing and reselling that access to retail consumers; and (iii) billing their customers.
42. With very limited exceptions, which are discussed below, Resellers do not build, maintain or upgrade their own wireline networks. Nor do Resellers introduce to the market new technologies or differentiated service offerings. It is only the facilities-based competitors that are responsible for innovation and the continuous advancement of Canada’s broadband infrastructure.

43. In fact, Resellers rely on facilities-based competitors for almost all services necessary to connect Canadian consumers to the internet. Resellers do not even perform many of their own installations or repairs at individual households or businesses: instead, Resellers generally rely on technicians employed or contracted by facilities-based competitors to perform those services.

44. In practical terms, this means that when a consumer contacts a Reseller and purchases an internet service plan, the Cable Carrier whose wireline network the Reseller is accessing is required to connect the consumer to the Cable Carrier’s network. The Cable Carrier’s technician must go to the home of the Reseller’s customer and perform the installation. This technician is trained by the Cable Carrier and, as a practical matter, typically wears the company’s uniform and drives a vehicle bearing the Cable Carrier’s colours and logo. The Cable Carrier is also required to dispatch its technicians to perform service calls to address technical difficulties reported by the Reseller’s customer.

45. Because it is obvious to the consumer that the Reseller is providing high-speed access services by accessing a particular Cable Carrier’s network, the Reseller benefits from the goodwill and reputation that the Cable Carrier has spent years and significant amounts of money developing.
46. Resellers have also sought, and continue to seek, to increase the range and quality of services that the Cable Carriers provide to Resellers’ customers. In effect, this amounts to an attempt to outsource to the Cable Carriers the customer management responsibilities of Resellers, causing the Cable Carriers to expend more time and more resources on servicing their competitors’ customers. For instance, after going to great effort and expense to develop a service appointment reminder system in order to improve customer service for its own customers, one Cable Carrier has had to contend with demands from Resellers that the Cable Carrier also deploy that same system for the benefit of customers of Resellers. This is so even though Resellers did not contribute at all to the development of the system, and even though it would be inappropriate for customers of Resellers to receive appointment reminders from a company with which they have no relationship.

(v) **Resellers’ Minimal Investments in Broadband Infrastructure**

47. The CRTC has recognized that: “[f]acilities-based competition […] is typically regarded as the ideal and most sustainable form of competition.”

48. To the extent that the wholesale access regime is intended to encourage additional facilities-based competition by engendering a “ladder of investment” – whereby Resellers that gain access to the market by using the wireline networks of facilities-based competitors are able to gradually progress from reselling to investing in their own facilities – the Canadian experience has largely been a failure. Very few Resellers have made such investments, with the largest being a $26 million fibre project undertaken in the Chatham-Kent area of Ontario. Those investments, however, account for less than 1% of private sector investment in wireline networks

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and are a tiny fraction of the investments made by facilities-based competitors to expand and enhance Canada’s wireline networks. It is indisputable that meaningful investment in infrastructure by Resellers in Canada has not materialized.

49. In this regard, a paper prepared by NERA Economic Consulting in 2015 concerning the broadband market in Canada noted that:

After more than 15 years of experience with open access regulation, a substantial body of empirical research has assessed its effects, and the results are not ambiguous: Mandated access has in general not led new entrants to invest in their own facilities, has discouraged investment by incumbents, and ultimately has slowed the deployment of new broadband facilities and lowered broadband penetration.

[...]

The Canadian market has been subject to open access regulation for many years. While the evidence suggests that the negative impact of such regulation on market performance has not been as significant as in countries where it has been implemented more aggressively, the economic evidence gives every reason to believe that it has served as a drag on overall performance; certainly, there is no apparent evidence that it has generated any significant benefits.31 [emphasis added]

50. Scott Wallsten, the former economics director for the Federal Communications Commission’s National Broadband Plan, reached essentially the same conclusion in a 2014 paper concerning competition in Europe and Japan. He found that “the ladder of investment became a ladder to nowhere as regulated wholesale access became an end in itself rather than a means to an end”.32


51. When national regulatory authorities undermine incentives for investment in telecommunications infrastructure, the impacts on the national economy can be very real and significant. For example, an article published in the Wall Street Journal just days before the CRTC Order was issued noted that the German economy is paying a high price for past failures to promote diverse facilities-based competition in wireline internet infrastructure. In particular, slow speeds are impeding the digitization of numerous industries in Germany, negatively affecting their domestic and international competitiveness.\(^{33}\) This is not the future we want for Canadian industry.

52. According to the CRTC’s own data, Resellers have made minimal investments in Canada’s wireline networks. Indeed, incremental investments made by Resellers may be declining, rather than increasing. In the period from 2013 to 2017, Resellers accounted for only approximately 0.36% of total investment in wireline plants and equipment. Their investments in 2017 were even less than that. Between 2013 and 2017, the compound annual growth rate of Resellers’ investments in wireline infrastructure was -8.2%.\(^{34}\)

53. By contrast, during this same period, the Cable Carriers and other facilities-based competitors (excluding the Telephone Companies) accounted for approximately $14.9 billion in


investments in wireline infrastructure, at a compound annual growth rate of 18.9%. This figure, of course, does not include the billions of dollars that the Cable Carriers have also invested in building, maintaining and upgrading the infrastructure necessary to provide wireless coverage across Canada.

The relative wireline network investments made by the Cable Carriers and other facilities-based competitors, on the one hand, and by Resellers, on the other hand, during the period from 2013 to 2017 are depicted in the following graphs:

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(vi) **Interim Wholesale Rates Established in 2016**

55. In October and November 2016, the CRTC established interim wholesale rates applicable to the Cable Carriers. These interim rates were dramatically lower than the wholesale rates the Cable Carriers had previously charged, with reductions of as much as 85.6%. Moreover, the interim rates were established at levels that were below the costs of providing the services in question – especially in remote locations and smaller communities.

56. The interim rates were in place until August 15, 2019, when the CRTC issued the Order that is the subject of this Petition. The interim rates currently remain in force due to a temporary order issued by the Federal Court of Appeal on September 27, 2019 staying the CRTC Order on

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36 Telecom Order CRTC 2016-396, issued on October 6, 2016, established interim rates applicable to Cogeco, Rogers, Shaw and Videotron (as well as the Telephone Companies). Telecom Order CRTC 2016-448, issued on November 10, 2016, established interim rates applicable to Eastlink.
an interim basis, pending the determination by that Court of a motion for leave to appeal brought by the Cable Carriers.\(^{37}\)

57. During the period that the interim rates have been in place, Resellers across Canada have been able to compete effectively with facilities-based competitors – and, indeed, have thrived.\(^{38}\)

58. Yet, despite their healthy and growing share of the Canadian market for broadband internet services, and despite having significantly lower costs due to the drastic wholesale rate reductions imposed by the CRTC in 2016, Resellers still have made no material investments in wireline networks of their own. They remain content to resell access to the wireline networks of facilities-based competitors, leaving it to the Cable Carriers and Telephone Companies to make the enormous investments required to build, maintain and upgrade those networks.

59. While the interim rates negatively affected all of the Cable Carriers, the punitive impact of the interim rates (and the harm those rates ultimately inflicted on consumers) is especially apparent in the case of Eastlink. Because of Eastlink’s focus on connecting households in rural, remote and more sparsely populated areas of Canada, the costs associated with building, maintaining and upgrading Eastlink’s wireline network are particularly high. It is more difficult and expensive to build and maintain infrastructure required to connect consumers spread across

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\(^{37}\) The proposed appeal of the Cable Carriers involves different issues and claims for relief than the Cable Carriers have sought in this Petition. Among other things, the proposed appeal to the Federal Court of Appeal concerns numerous specifically identified errors of law and jurisdiction committed by the CRTC in rendering its Order of August 15, 2019. By contrast, this Petition concerns the failure of the CRTC to recognize, abide by or give effect to longstanding policies of the Government of Canada.

large and frequently remote geographic areas (portions of which are difficult to access) than it is to connect consumers in dense urban areas.\(^\text{39}\)

60. The interim rates imposed by the CRTC in 2016 failed to recognize or account for Eastlink’s unique circumstances. The interim rates were a small fraction of the rates the company had proposed to the CRTC, which were based on Eastlink’s specific costs and an appropriate markup:

<table>
<thead>
<tr>
<th>Download Speed</th>
<th>Proposed Rate(^\text{40})</th>
<th>Interim Rate</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 to 100 Mbps</td>
<td>$44.74</td>
<td>$25.47</td>
<td>-43.1%</td>
</tr>
<tr>
<td>101 to 150 Mbps</td>
<td>$47.48</td>
<td>$31.32</td>
<td>-34.0%</td>
</tr>
<tr>
<td>151 to 300 Mbps</td>
<td>$53.89</td>
<td>$34.14</td>
<td>-36.6%</td>
</tr>
<tr>
<td>301 to 400 Mbps</td>
<td>$69.95</td>
<td>$44.09</td>
<td>-37.0%</td>
</tr>
<tr>
<td>401 to 940 Mbps</td>
<td>$95.82</td>
<td>$55.51</td>
<td>-42.1%</td>
</tr>
</tbody>
</table>

61. The interim rates established by the CRTC in 2016 were so low that they nullified the business case underlying certain planned network upgrade investments. As a responsible business, Eastlink had little choice but to cancel those investments.

62. Eastlink’s concerns about the low interim rates established by the CRTC were not and are not theoretical in nature. In one Ontario community where Eastlink had previously made

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\(^\text{40}\) This is the proposed monthly rate per end-user, as set out in Eastlink’s Tariff Notice 37 (filed with the CRTC in September 2016) <https://crtc.gc.ca/8740/eng/2017/e17.htm#a201610262>. Importantly, in the period following the issuance by the CRTC of the interim rates in 2016, Eastlink filed revised proposed rates in Tariff Notice 37A. These rates, which were filed in March 2017, corrected the rates proposed in Tariff Notice 37 by including costs that had been erroneously excluded.
significant investments to upgrade its network, a Reseller was able to capitalize on the interim rates by reselling access to Eastlink’s network at prices that Eastlink could not match. The Reseller now has more subscribers in that community than Eastlink does, with the result that Eastlink has very little opportunity to realize returns on its investments. In a number of other small communities, Resellers have managed to gain a market share approaching 50%. This has a significant and damaging impact on Eastlink given that the small population bases of those communities already meant that the business case for investment was somewhat marginal.

63. The interim rates of 2016 also affected negatively the other Cable Carriers. This is so principally because the CRTC, in issuing those interim rates, reduced dramatically the capacity rates proposed by the Cable Carriers.41 The following chart sets out the capacity rates approved on an interim basis by the CRTC compared to the capacity rates that had been proposed by the Cable Carriers:

<table>
<thead>
<tr>
<th>Cable Carrier</th>
<th>Proposed Rate</th>
<th>Interim Rate</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastlink</td>
<td>$638.02</td>
<td>$353.35</td>
<td>-44.6%</td>
</tr>
<tr>
<td>Cogeco</td>
<td>$716.45</td>
<td>$323.73</td>
<td>-54.8%</td>
</tr>
<tr>
<td>Rogers</td>
<td>$1,122.00</td>
<td>$319.68</td>
<td>-71.5%</td>
</tr>
<tr>
<td>Shaw</td>
<td>$392.48</td>
<td>$296.10</td>
<td>-24.6%</td>
</tr>
<tr>
<td>Videotron</td>
<td>$1,285.00</td>
<td>$395.36</td>
<td>-69.2%</td>
</tr>
</tbody>
</table>

41 In addition, the CRTC significantly reduced the access rates applicable to Shaw, while accepting the proposals from Cogeco, Rogers, and Videotron concerning access rates.
C. The CRTC Order of August 15, 2019 (Telecom Order CRTC 2019-288)

(i) The New Wholesale Rates

64. Following the establishment by the CRTC of the interim rates in 2016, the Cable Carriers filed with the CRTC new proposed wholesale rates based on updated cost studies. This initiated the rate-setting process that culminated in the issuance by the CRTC of its August 15, 2019 Order that is the subject of this Petition.

65. The CRTC Order establishes “final” wholesale rates that the Cable Carriers are permitted to charge for wholesale access to their wireline networks. The final rates are even lower than the interim rates, and by a substantial margin. Moreover, the final rates depart entirely from the rates proposed by the Cable Carriers during the rate-setting process, even though the Cable Carriers’ proposals were amply supported by robust cost studies. This is true of both the access rate and capacity rate components of the wholesale rates established by the CRTC.

66. To pick one example, the CRTC Order reduces the access rates for Eastlink relative to the interim rates and relative to the rates proposed by Eastlink (based on its updated cost study) as follows:

<table>
<thead>
<tr>
<th>Download speed</th>
<th>Interim Rate</th>
<th>Proposed Rate[^42]</th>
<th>Final Rate</th>
<th>Reduction from Interim Rate</th>
<th>Reduction from Proposed Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 to 100 Mbps</td>
<td>$25.47</td>
<td>$44.24</td>
<td>$16.72</td>
<td>-34.4%</td>
<td>-62.2%</td>
</tr>
<tr>
<td>101 to 150 Mbps</td>
<td>$31.32</td>
<td>$45.94</td>
<td>$16.72</td>
<td>-46.6%</td>
<td>-63.6%</td>
</tr>
<tr>
<td>151 to 300 Mbps</td>
<td>$34.14</td>
<td>$49.91</td>
<td>$16.72</td>
<td>-51.0%</td>
<td>-66.5%</td>
</tr>
<tr>
<td>301 to 400 Mbps</td>
<td>$44.09</td>
<td>$62.68</td>
<td>$16.72</td>
<td>-62.1%</td>
<td>-73.3%</td>
</tr>
<tr>
<td>401 to 940 Mbps</td>
<td>$55.51</td>
<td>$78.71</td>
<td>$16.72</td>
<td>-69.9%</td>
<td>-78.8%</td>
</tr>
</tbody>
</table>

[^42]: This is the proposed monthly rate per end-user, as set out in Eastlink’s Tariff Notice 37A (filed with the CRTC in March 2017 based on an updated cost study) <https://crtc.gc.ca/8740/eng/2017/e17.htm#a201610262>.
The CRTC Order imposes similarly drastic reductions in the final access rates applicable to the other Cable Carriers. The individual statements of Cogeco, Rogers, Shaw and Videotron that are attached to this Petition as Appendices “B” through “F” contain tables that compare the access rates established in the CRTC Order to the interim rates.

Moreover, the final capacity rates applicable to all of the Cable Carriers have been reduced by up to 42.6% compared to the interim rates issued in 2016 and by up to 79.1% compared to the rates proposed by the Cable Carriers (based on their updated cost studies). This can be seen in the following chart:

<table>
<thead>
<tr>
<th>Cable Carrier</th>
<th>Interim Rate</th>
<th>Proposed Rate</th>
<th>Final Rate</th>
<th>Reduction from Interim Rate</th>
<th>Reduction from Proposed Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastlink</td>
<td>$353.35</td>
<td>$661.61</td>
<td>$212.10</td>
<td>-40.0%</td>
<td>-67.9%</td>
</tr>
<tr>
<td>Cogeco</td>
<td>$323.73</td>
<td>$793.10</td>
<td>$233.49</td>
<td>-27.9%</td>
<td>-70.1%</td>
</tr>
<tr>
<td>Rogers</td>
<td>$319.68</td>
<td>$589.05</td>
<td>$224.32</td>
<td>-29.8%</td>
<td>-61.9%</td>
</tr>
<tr>
<td>Shaw</td>
<td>$296.10</td>
<td>$405.22</td>
<td>$251.14</td>
<td>-15.2%</td>
<td>-38.0%</td>
</tr>
<tr>
<td>Videotron</td>
<td>$395.36</td>
<td>$1,084.50</td>
<td>$227.05</td>
<td>-42.6%</td>
<td>-79.1%</td>
</tr>
</tbody>
</table>

The CRTC Order also makes the new wholesale rates retroactive to as far back as March 31, 2016. As a result, the Cable Carriers will effectively be required to make more than $225 million in retroactive payments to Resellers.

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70. These retroactive payments must be made even though the CRTC Order does not impose any requirements on Resellers to refund to consumers all or any portion of those payments, or to use the funds to make investments in their own wireline networks. Rather, these extraordinary retroactive payments amount to windfall gains that the Resellers can simply pocket and distribute to their owners, or use for marketing purposes to increase their share of customers in a distorted market.

71. The retroactive nature of the final wholesale rates unfairly penalizes the Cable Carriers for having charged the Resellers at the interim rates during the prolonged period since those rates were established by the CRTC in 2016. The Cable Carriers could not and did not anticipate that the CRTC would order them to repay so much money to Resellers, precisely because the Cable Carriers could not and did not anticipate that: (i) the final wholesale rates would be so much lower than the interim rates; and (ii) it would take the CRTC more than three years to arrive at the final wholesale rates. It was not even possible for the Cable Carriers to account for retroactive payments in preparing their financial statements, because the existence and amount of those payments was unknown. Put simply, the Cable Carriers did nothing wrong in using interim rates that were expressly authorized by the CRTC – yet now face the prospect of massive liability for having done so.

72. Importantly, and as illustrated in the chart at paragraph 66 above, the CRTC Order eliminates the CRTC’s prior practice direction to file wholesale rates on a “speed band” basis. Under the “speed banding” approach, wholesale rates vary depending on the download and

21, 2019, <https://newsroom.shaw.ca/materialDetail.aspx?MaterialID=6442452269>. The impact on Videotron is approximately $50 million: see Videotron press release dated August 21, 2019, <http://corpo.videotron.com/site/press-room/press-release/1029>. As a privately-owned company, Eastlink has not disclosed publicly the quantum of the loss it will suffer due to the retroactive nature of the new wholesale rates. These figures do not include the financial impacts that the new wholesale rates will have on the Cable Carriers going forward.
upload speeds associated with the high-speed access services that Resellers are allowed to purchase. The wholesale rates for the access component of the highest-speed services are higher, reflecting the reality that it is more expensive for the Cable Carriers to provide those services than it is to provide lower-speed services. The CRTC Order, however, prescribes a single wholesale rate applicable to the access component of all high-speed access services offered by a given Cable Carrier, regardless of speed. This is a fundamental and ill-considered change.

73. In establishing the new wholesale rates, the CRTC once again purported to apply various assumptions and factors prescribed by the Costing Manuals. The CRTC did not develop or apply a costing methodology that accounts for the actual technologies deployed by the Cable Carriers in their wireline networks.

74. To the contrary, the wholesale rates established in the CRTC Order are based on incorrect assumptions about the architecture of the Cable Carriers’ wireline networks. If wireline infrastructure were built and expanded based on the CRTC’s model, the scale and quality of broadband internet access networks would be dramatically diminished. For instance, the new wholesale rates applicable to Rogers will cover the fibre segmentation costs associated with connecting only approximately 250 node segments. Rogers’ network actually contained more than 11,500 node segments as early as 2016 and contains thousands more today. That number continues to grow, given that: (i) nodes have to be added to maintain quality of service as internet usage increases; and (ii) as explained below, annual usage in Canada has increased dramatically in recent years, with no end in sight.

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45 Segmentation costs are the costs associated with optical node equipment and connecting fibre optic cable. A node is a device that converts internet traffic from a neighbourhood of homes (each served by coaxial cables) into optical signals, which are then transported by a dedicated fibre optic cable from the node back to a router in a central location.

46 Affidavit of David Watt sworn September 12, 2019, para. 60, Attachment 2.
(ii) The Harmful Consequences of the CRTC Order

75. The Cable Carriers understand the importance to Canadians of affordable high-speed access. Cogeco, Rogers, Shaw and Videotron all participate in Connecting Families, an ISED initiative created in 2017 to allow eligible families to obtain high-speed access services for $10 per month.47 This initiative is fully funded by the Cable Carriers, Telephone Companies and other, smaller facilities-based competitors that participate in it. The Cable Carriers participate in Connecting Families not because they earn significant revenues from doing so, but because they believe it is the right thing to do. Indeed, the $10 rate is below the Cable Carriers’ costs. Notably, none of the internet service providers participating in this initiative is a Reseller.48

76. That being said, wholesale rates have to be set at a level that strikes an appropriate balance between all of the Government of Canada’s policy objectives: affordability, competition, investment, innovation and expansion to rural, remote and Indigenous communities. The Cable Carriers are not suggesting that incentivizing investment be prioritized at the expense of affordability. Rather, establishing just and reasonable wholesale rates will help ensure that both of these objectives (as well as the others) will be met in the short- and long-term. As the Competition Bureau stated in its recent Report:

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47 See: <https://www.ic.gc.ca/eic/site/111.nsf/eng/home>. Eastlink does not participate in this initiative because, in view of its focus on smaller communities and the increased costs associated with serving such communities, the company cannot provide its services at a $10 rate (which is further below cost for Eastlink than it is for the other Cable Carriers).

48 The list of participating internet service providers is available here: <https://www.ic.gc.ca/eic/site/111.nsf/eng/00003.html>.
Of importance, the Bureau notes the potential negative effects that a wholesale access regime can have on the incentive for facilities-based competitors to make the necessary investments to ensure that Canadians are served by world class networks. In this regard, the Bureau underscores the importance of setting wholesale access rates at the correct level to ensure that investment incentives are maintained, while at the same time ensuring sufficient scope for wholesale-based competitors to continue to offer competitive discipline in the marketplace.49

77. The CRTC Order does not set wholesale access rates at an appropriate level. Instead, it establishes rates that are indefensibly low. This is a short-sighted approach that may well succeed in lowering prices for consumers in the very short-term, but at the expense of affordable access to high-quality and innovative internet access services over the long-term.

78. Put another way, the unintended but unavoidable effect of the CRTC Order is to tilt the competitive playing field markedly and unfairly in favour of Resellers, and to upset in a fundamental way the necessary balance between the Government’s policy objectives. The new wholesale rates will not allow the Cable Carriers to recover their costs, let alone earn a reasonable return on the massive investments they have made and had intended to continue making in Canada’s wireline networks.

79. The fallout from the CRTC Order has therefore been swift and significant. Of particular note:

(a) Eastlink has announced publicly that it will reduce its planned capital investments for 2019 by $50 million, or approximately 25%. It has also expressed its intention to scale back on previous planned improvements in rural areas.\(^{50}\) Eastlink’s planned reductions to investments have increased since that announcement;

(b) Cogeco has announced that it is “reviewing the details of the CRTC decision and its options going forward”, noting that “just and reasonable rates are paramount to ensure continued and sustained investments in networks, especially in unserved areas”.\(^{51}\) Cogeco expects that it will have to cancel annual expansion projects if the wholesale rates established in the CRTC Order come into force;\(^{52}\)

(c) Rogers has announced that it “is determining next steps, including a review of all future investments in rural and remote communities.” In this regard, Rogers has commented publicly that the wholesale rates established in the CRTC Order “do not recognize the true cost of building and expanding Canada’s world-class broadband networks and will certainly impact Rogers’

\(^{50}\) Vince Valentini & Bentley Cross, “TD Report”, p. 1, Attachment 1.


\(^{52}\) Affidavit of Patrice Ouimet sworn September 12, 2019, para. 9, Attachment 3.
future network investments”. Rogers now expects that it will have to cancel planned network investments if the wholesale rates established in the CRTC Order come into force;  

(d) Shaw has announced that it is “reviewing [its] future plans for capital expenditures and network deployment”, while noting that the CRTC Order “undermines the direction from the government to expand broadband connectivity to all Canadians and to make Canada a leader in the digital economy”. Shaw has more recently stated that since the announcement of “the reduced [wholesale] rates, we have already altered our plans with respect to launching new higher-speed Internet tiers”; and

(e) Videotron has announced that it will “assess all available options”, and has expressed its “concern about the decision’s potential economic impact”. The company’s President and Chief Executive Officer, Jean-François Pruneau, commented that “[i]t has been clearly established that a strong digital economy, supported by powerful networks, promotes the economic development of our communities, and we are concerned about the long-term consequences that delays in investments may have for the country”. As a direct result of the CRTC Order, Videotron has now eliminated its highest-
speed internet access service, which allowed consumers to download data at up to 940 Mbps and upload data at up to 50 Mbps.58

80. Analysts from TD Bank estimate that because of the CRTC Order, the six publicly-traded facilities-based competitors (Cogeco, Rogers, Shaw, Videotron, Bell and TELUS) will reduce annual investments in their wireline networks by approximately $1.68 billion annually starting in 2021.59 This will represent a 22% reduction in total investments in wireline networks compared to the last decade, at a time when it is critically important to encourage rather than discourage such investments (as discussed below).

81. The Cable Carriers do not want to reduce their investments or to cancel their services. In mapping out their planned investments in the period before the CRTC Order was issued, however, they did not know and could not have predicted that the CRTC would impose extraordinary rate reductions. That is particularly so given the magnitude of the reductions the CRTC had already imposed in establishing the interim rates in 2016.

82. If the CRTC Order is implemented, the Cable Carriers will be left with no choice but to respond to the economic realities that flow inexorably from the CRTC Order and adjust their investment access plans accordingly. Investments in upgrading existing infrastructure and in expansion to rural and remote communities depend on earning revenues from existing subscribers. The Cable Carriers’ ability to make such investments will be adversely affected if


they are required to sell high-speed internet access services to Resellers in current and future service territories at rates that are below cost.

83. Not only are the final wholesale rates so low that they discourage investment by the Cable Carriers, but they also incentivize the Resellers to continue to access the networks of the facilities-based competitors indefinitely rather than invest in building and improving their own wireline networks.

84. The damaging effect of the CRTC Order on the Cable Carriers and their networks is further aggravated by the fact that the Order does not apply to Telephone Companies’ fibre-to-the-home high-speed internet services. This regulatory asymmetry will allow the Telephone Companies – against which the Cable Carriers compete fiercely – to enjoy a significant competitive advantage, particularly in Western and Atlantic Canada. In Ontario and Québec, the CRTC has established interim wholesale rates for fibre-to-the-home services, but wholesale access to those services is not yet operational. Outside of those provinces, Telephone Companies are free to sell their most cutting-edge high-speed internet service to retail consumers while refraining entirely from granting wholesale access to Resellers if they choose, with the result that Telephone Companies can earn full market rates for their highest-valued services. Meanwhile, the CRTC Order will force the Cable Carriers to sell all of their high-speed services at much lower rates. The elimination of speed banding compounds the problem, because of the negative impact it has had and will have on the Cable Carriers’ ability to develop and offer even faster speed services.

85. The asymmetrical application of the CRTC Order demonstrates how fundamentally flawed and unprincipled the decision is. If the CRTC Order is left to stand, both the Resellers and Telephone Companies will benefit from an immediate and unjustifiable competitive
advantage over the Cable Carriers to the detriment of the many communities throughout Canada that the Cable Carriers currently serve and those to which they plan to expand. This undermines the future strength of Canada’s broadband market as a whole.

86. Attached to this Petition as Appendix “A” is a Report prepared by The Brattle Group, a prominent economic consulting firm, concerning the harm that the CRTC Order will inflict on each of the Cable Carriers. That Report explains that compared to the interim rates of 2016, the wholesale rates established in the CRTC Order will negatively affect the Cable Carriers’ operating margins over the next five years alone by as much as approximately $3.7 billion (calculated on a Net Present Value basis). That translates to as much as approximately 54% of the Cable Carriers’ planned investments in expanding and improving their broadband networks during the same five-year period.

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See Agustin J. Ros et al., “Analysis of CRTC’s Final Rates for Aggregated Wholesale High-Speed Access Services: Impact on Broadband Network Investment and Innovation” (November 2019), para. 41 and Figure 10 (Appendix “A” to this Petition). The negative impact of the final wholesale rates on undiscounted future cash flows will, of course, be substantially higher.
87. In addition, attached to this Petition as Appendices “B” through “F” are statements prepared by each of the Cable Carriers explaining the negative impacts that the CRTC Order has had and will continue to have on their investments and market initiatives – and consequently on Canadians and the future of broadband in Canada – if the wholesale rates established in that Order are permitted to come into force. The Cable Carriers serve households and businesses across Canada. The highly negative impacts and consequences associated with the CRTC Order should not be underestimated, particularly given the importance of high-speed internet access to Canada’s present and future (as described below).

D. Important Policy Objectives Undermined by the CRTC Order

(i) The CRTC Order Will Negatively Affect Rural, Remote and Indigenous Communities in Canada

88. This Government has recognized that the internet is critically important to the Canadian economy and society, and that its importance in the personal and working lives of Canadians will only continue to grow. As the Government of Canada stated in the 2016 Federal Budget: “Few jobs, sectors or aspects of life are untouched by information and communications technology”.

The highly negative impacts and consequences associated with the CRTC Order should not be underestimated.

The CRTC has likewise commented that:

Canadians are using [wireline and wireless broadband internet access] services to find jobs, manage their investments, conduct business, further their education, keep informed on matters of public concern, consult with health care professionals, and interact with all levels of government. In general, fixed and mobile wireless broadband Internet access services improve the quality of

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89. The Cable Carriers believe strongly that residents of rural, remote and Indigenous communities deserve the same opportunities to participate in the economy, society and culture as other Canadians. Residents of these communities must be given fair and equal access to fundamental modern resources such as telehealth, e-learning and remote access to government services. If anything, access to these sorts of online services is more important in rural and remote communities than it is in urban or suburban communities, since in-person healthcare, education and government services are less likely to be readily available in rural and remote areas due to geographical and topographical obstacles.

90. Regrettably, residents of rural, remote and Indigenous communities do not yet enjoy the same access to high-speed internet services as residents of urban areas. This “digital divide” is very real, and constitutes a disadvantage so significant that the Liberal Party of Canada, the New Democratic Party and the Conservative Party of Canada have all committed to correcting it. As the CRTC noted in its 2018 Communications Monitoring Report, in 2017 broadband internet services with download speeds of 50 Mbps or faster were available to 100% of households in large population centres, 99% of households in medium population centres and 88% of households in small population centres. Yet only approximately 39% of rural households had

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91. This digital divide puts Canadians in rural, remote and underserved areas at a distinct and unwelcome disadvantage. As the Honourable Bernadette Jordan, Minister of Rural and Economic Development, recognized as recently as May of this year:

\begin{quote}
Lack of high-speed service means that these communities lack the essential services that urban Canadians take for granted. It means that Canadians cannot sell their products and services online. They must resort to accessing government services over the phone instead of online. […] These realities are having a real impact on people in rural Canada and, in some cases, are leaving them behind.\footnote{Hon. Bernadette Jordan, appearance before the House of Commons Standing Committee on Industry, Science and Technology (May 16, 2019) \textless https://www.ourcommons.ca/Content/Committee/421/INDU/Evidence/EV10500782/INDUEV163-E.PDF \rless.}
\end{quote}

92. The Government has therefore made it a priority to expand the availability of broadband internet access in Canada, with a particular focus on connecting Canadians in rural, remote and underserved communities.\footnote{Liberal Party Platform 2019, p. 22 \textless https://2019.liberal.ca/wp-content/uploads/sites/292/2019/09/Forward-A-real-plan-for-the-middle-class.pdf \rless.} While the new Cabinet is expected to be sworn in shortly, the Prime Minister’s most recent Mandate Letter to the Minister of Rural Economic Development states that one of the Minister’s top priorities is to:

\begin{quote}
Lead work to increase high-speed broadband coverage in rural Canada. This includes the rollout of existing investments, programming towards further improvements, and ensuring that investments by the Government of Canada, provincial and
territorial partners, and the private sector are co-ordinated to best prepare rural Canada for success in the digital economy.\[^{68}\]

The Government’s strategy for expanding broadband internet access in rural and remote communities of Canada is multifaceted and predicated on significant participation by the private sector. It includes:

(a) the Connect to Innovate Program, which was created in December 2016 to invest $500 million to help connect hundreds of thousands of households in hundreds of different communities (including Indigenous communities);

(b) $1.7 billion in additional funding for broadband infrastructure, which includes (among other things): (i) a new Universal Broadband Fund to support projects across Canada; and (ii) a top-up for the Connect to Innovate Program;

(c) support for broadband and connectivity projects through other sources of public funding, such as the $2 billion Rural and Northern Stream of the Investing in Canada Infrastructure Program, the CRTC’s $750 million Broadband Fund and $1 billion through the Canada Infrastructure Bank; and

(d) at least $2 billion in additional private sector investment,\[^{69}\] which the CRTC Order has jeopardized.

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94. Several provincial governments have also implemented programs to support expansion of high-speed internet into more remote communities, such as British Columbia’s *Connecting British Columbia* program and Québec’s *haut débit* program.

95. The Cable Carriers welcome these important federal and provincial initiatives. They assist in incentivizing private investment in the infrastructure necessary to expand broadband access to otherwise unprofitable areas.

96. The CRTC also recognizes the importance of widespread access to high-speed broadband internet services. In 2016, the CRTC adopted a “universal service objective” with the goal of ensuring that “Canadians, in urban areas as well as in rural and remote areas, have access to voice services and broadband Internet access services, on both fixed [i.e., wireline] and mobile wireless networks”.

97. In addition, earlier this year the Governor in Council issued an Order directing the CRTC to consider the interests of rural communities in making decisions concerning telecommunications in Canada (the “2019 Policy Direction”). In this regard, the 2019 Policy Direction states that:

1. In exercising its powers and performing its duties under the Telecommunications Act, the Commission must implement the Canadian telecommunications policy objectives set out in section 7 of that Act, in accordance with the following:

   (a) the Commission should consider how its decisions can promote competition, affordability, consumer interests and innovation, in particular the extent to which they

   […]

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(iii) ensure that affordable access to high-quality telecommunications services is available in all regions of Canada, including rural areas … [emphasis added]71

98. This directive echoes Section 7(b) of the Telecommunications Act, which states that one of the objectives of the Canadian telecommunications policy is “to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada”.72

99. The private sector, and facilities-based competitors in particular, have a crucial role to play in narrowing and ultimately closing the digital divide. Despite the significant investments made by the federal and provincial governments in expanding high-speed internet access, those investments represent a fraction of the annual investments made by the Cable Companies and Telephone Companies.

100. As the Government has put it, “it is imperative that all orders of government across Canada, as well as the private sector, Internet service providers and other stakeholders, lend support and resources to closing the broadband gap” (emphasis added).73

101. The critical role played by the Cable Carriers and other facilities-based competitors in expanding broadband services to rural, remote and underserved communities is evident from data concerning their active participation in the Connect to Innovate Program.74

71 Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives to Promote Competition, Affordability, Consumer Interests and Innovation, SOR/2019-227, s. 1(a)(iii) <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11524.html>.


102. As noted above, and as the Governor in Council is well aware, there must be a business case if private sector actors are to make massive investments in their infrastructure. It would be unrealistic and unfair to expect any business to spend large amounts of capital without a reasonable expectation that it will recover that capital and earn a reasonable return that is commensurate with the nature and degree of risk associated with the proposed investment. These propositions are not novel or controversial. It is for precisely this reason that, in deploying public funds to increase and enhance broadband access, the Government intends to “target investments to areas where there is a limited private-sector business case for investment”.75

103. The risks associated with investing in wireline infrastructure expansion are significant, and are particularly acute with respect to investments in expanding access to rural, remote and less densely populated areas. Moreover, the investments do not end when the construction of a facility is complete. As internet traffic increases, facilities-based competitors must make ongoing investments to prepare for increased capacity requirements on these networks – investments that may not be justified where a Cable Carrier’s subscriber base or its return on investment is seriously jeopardized by Resellers. The risks associated with investing in wireline infrastructure needed to serve rural, remote and less densely populated areas of the country are even more acute. Given the increased costs associated with serving such areas, as well as the smaller consumer bases in such areas relative to urban areas, the business case for investing in networks in rural, remote and underserved communities will frequently be significantly less robust.


104. This means that if wholesale rates are so low that investment incentives are undermined, the inevitable result is that the first investments to be cancelled will be those in rural, remote and underserved areas of Canada.

105. The Competition Bureau warned of precisely this risk in its recent Report:

On both a theoretical level, and based on the business records that the Bureau has reviewed, **this negative effect on investment incentives will most likely be felt at the fringes of a network.** Some areas may be so densely populated, strategically important, or otherwise relatively cheap to deploy that investment will occur except under the most onerous conditions. **That means that the strongest reduction in investment is most likely to be felt in areas where population is relatively sparser. This has significant implications for rural and remote customers, who tend to have fewer and less advanced internet access options in Canada.** [emphasis added]

106. The CRTC Order has the very effect that the Competition Bureau warned against. It sets wholesale rates at levels that are below the Cable Carriers’ costs. In doing so, the CRTC Order negates the positive impact of the funding initiatives undertaken by the Government of Canada and provincial governments, and undermines significantly the investment incentives and financial capabilities of the Cable Carriers. The inevitable consequence is to prejudice dramatically Canadians that reside in rural, remote and underserved communities who need and deserve access to high quality broadband internet services.

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107. This is clearly illustrated by Eastlink’s decision to cancel at least $50 million in planned investment projects, and to scale back on planned improvements in rural areas. It is also illustrated by the public statements and investment decisions made by the other Cable Carriers in response to the new wholesale rates established in the CRTC Order.

108. Regrettably, in issuing that Order on August 15, 2019, the CRTC does not appear to have considered or appreciated the highly negative impact that the new wholesale rates will have on households in rural, remote and Indigenous communities in Canada. The words “rural” and “remote” do not appear even once in the CRTC Order.

109. In the result, the CRTC Order jeopardizes the Government’s important objective of closing the digital divide and achieving universal broadband internet access in Canada. If the wholesale high-speed access regulatory framework remains unchanged, and the rates established by the CRTC Order come into force, the Government will be forced to make a difficult choice that it should not have to face. The Government will have to either: (i) abandon its plan to connect all of Canada, including Canadians in rural and remote communities, thereby denying residents of those communities the opportunity to participate fully in the digital economy; or (ii) finance the enormous costs associated with expanding and upgrading wireline networks using taxpayer funds, with little or no participation by the private sector.

110. Resellers certainly cannot be counted on to step into the proverbial breach, including by absorbing or financing those costs. According to the Auditor General of Canada, the estimated total cost of expanding broadband access to all unserved and underserved communities in Canada is at least $6.5 billion, based on download speeds of 50 Mbps and upload speeds of 10

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The cost of achieving universal access at faster speeds is most assuredly exponentially higher. Nothing in the track record of Resellers to date suggests that any of them will be willing to make the sort of meaningful investments that would be required to establish, maintain and upgrade technologically advanced networks in Canada.

(ii) The CRTC Order Will Hamper Innovation and Cause Canada to Fall Behind International Peers in the Global Digital Economy

111. As is clear from the discussion above, it is difficult to overstate the importance of access to high-quality broadband internet services in Canada in the global digital economy. Virtually every sector of the Canadian economy relies on access to reliable, high-speed internet services. That reliance is so heavy that a recent Research Paper from the Calgary School of Public Policy likened telecommunications services to electricity in terms of its ubiquity and importance. Such services are, of course, very different from electricity in that the ongoing investment required to remain at the forefront of emerging telecommunications technologies is much more significant. The CRTC has explained the importance of broadband internet services in the following terms:

Modern telecommunications services are fundamental to Canada’s future economic prosperity, global competitiveness, social development, and democratic discourse. In particular, fixed [i.e., wireline] and mobile wireless broadband Internet access services are catalysts for innovation and underpin a vibrant, creative, interactive world that connects Canadians across vast distances and with the rest of the world.80

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112. It is therefore no surprise that the demands of Canadian consumers for higher internet access speeds and greater capacity that can be used to download and upload data are increasing exponentially. According to the Competition Bureau, the compound annual growth rate associated with internet traffic over wireline networks is approximately 35%. At that growth rate, the average consumer’s internet usage more than doubles every three years.81

113. All of this underscores the fundamental importance of investing in innovation in telecommunications. Absent technological advancements and improvements, Canada’s wireline networks will be unable to keep up with the demand of Canadian consumers for increasing amounts of data transmitted at higher speeds. The quality of broadband internet access services will suffer, and Canada will be the poorer for it. Canadian businesses, entrepreneurs and academics will be at a significant disadvantage if the country’s wireline networks fall behind those used by Canada’s international peers. So too will be ordinary Canadians.

114. As stated above, the Government of Canada has recognized the importance of encouraging innovation in telecommunications. The Prime Minister’s most recent Mandate Letter to the Minister of ISED makes clear that one of the Government’s top priorities is to “[i]ncrease high-speed broadband coverage and work to support competition, choice and

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availability of services, and foster a strong investment environment for telecommunications services to keep Canada at the leading edge of the digital economy” (emphasis added). 82

115. This priority is reflected in the Government’s 2019 Policy Direction, which directs the CRTC to consider the extent to which its decisions “encourage all forms of competition and investment”, “enable innovation in telecommunications services, including new technologies and differentiated service offerings,” and “stimulate investment in research and development and in other intangible assets that support the offer and provision of telecommunications services”. 83 While this Policy Direction was not technically in force at the time of the proceedings that resulted in the CRTC Order, it is an important consideration that should be borne in mind in reviewing this Petition. Similarly, section 7(g) of the Telecommunications Act provides that one of the objectives of the Canadian telecommunications policy is to “stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services”. 84

116. The Cable Carriers have risen to this challenge. The Resellers have not. As set out above, the Cable Carriers have invested billions of dollars in maintaining and upgrading their wireline networks – including through the introduction and refinement of new technologies that have enabled them to increase the amount of data they can deliver to Canadian consumers over their existing cable-based infrastructure while enhancing significantly the speed at which they do so.


83 Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives to Promote Competition, Affordability, Consumer Interests and Innovation, SOR/2019-227, s. 1(a)(i), (vi) and (vii) <https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11524.html>.

117. Shaw, for instance, doubled its speeds twice in 2018 alone. In addition, Rogers now offers its highest speed service throughout its entire service territory. The Cable Carriers are also members of CableLabs, the non-profit organization that has developed new technologies that allow cable-based internet service providers to transmit more data over cable infrastructure.

118. The Cable Carriers hope and intend to continue making the investments necessary to ensure that Canada’s wireline networks remain world-class, provided that there is an appropriate and sensible business case for doing so.

119. Unfortunately, there exists a very real question as to whether the existing wholesale high-speed access regulatory regime can promote investment in the broadband industry in the same manner as a regime focussed on facilities-based competition.

120. As noted above, in its Study completed in July 2015, NERA Economic Consulting concluded that this question must be answered in the negative. Other studies have reached similar conclusions. One comparative analysis of European and U.S. broadband networks found that the U.S. approach, which relies on facilities-based competition and does not include mandated wholesale access, has been more effective at promoting investment and achieving widespread access to next generation networks than the European approach, which relies on mandated wholesale access. In Europe, the average broadband investment per household as of the end of 2012 was US$244, with overall access to next generation networks at 54% and access in rural areas at 12%. In the United States, on the other hand, the average broadband investment
per household as of the end of 2012 was US$562, with overall access to next generation networks at 82% and access in rural areas at 48%. 85

121. A more recent paper, issued by the Information Technology & Innovation Foundation in September 2019, argues that:

(a) “reliance on intermodal, facilities-based competition (largely between cable and telephony broadband providers, but in the future likely to include LEO satellite and 5G providers) that characterizes the U.S. light-touch approach to broadband competition has seen expansion of networks, faster speeds, and considerably greater output at lower costs”;

(b) “as a general matter, facilities-based competition is effective at incenting more investment and supporting a more dynamic and innovative ecosystem – a fact well supported by empirical evidence”;

(c) “increased broadband competition is by no means a panacea for solving perceived or real limitation in a nation’s broadband infrastructure, and in many cases government mandated competition does more harm than good”.86

122. At a minimum, it is essential that Canada’s wholesale high-speed access regulatory framework be balanced, and that it not overlook or ignore the very real need to encourage


investment and innovation by focusing narrowly (or exclusively) on other important objectives such as affordability. The CRTC recognized this in 2013, stating that it “considers that its wholesale service policies should balance incentives for innovation and investment in the construction of telecommunications network facilities with the benefits that greater competition can create for consumers”.87

123. Unfortunately, the CRTC Order of August 15, 2019 loses sight of this need for balance. Indeed, it appears that in establishing the new wholesale rates, the CRTC did not meaningfully consider the need to encourage innovation in telecommunications services. The word “innovation” and its derivatives appear only once in the CRTC Order: namely in the preamble, which states that “[t]he Commission considers that the final rates will facilitate greater competition and promote innovative broadband services and more affordable prices for consumers”.88 That statement is divorced from any supporting information or analysis, and constitutes nothing more than a bald and conclusory assertion. The 2019 Policy Direction instructs the CRTC to “specify how [its] decisions can, as applicable, promote competition, affordability, consumer interests and innovation”.89 The CRTC Order does not do so.

124. The Cable Carriers note that the Policy Direction in force when the CRTC initiated the rate-setting process that led to the issuance of the CRTC was the 2006 Policy Direction.90 That

89  Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives to Promote Competition, Affordability, Consumer Interests and Innovation, SOR/2019-227, s. 2 <https://laws.justice.gc.ca/eng/regulations/SOR-2019-227/>. While this Policy Direction was not in force at the time the rate-setting process that led to the issuance of the CRTC Order was initiated, it came into force on June 17, 2019, almost two months before the CRTC Order was issued.
Policy Direction remains in effect. It provides that, when the CRTC employs a regulatory measure, the CRTC must:

(i) specify the telecommunications policy objective that is advanced by those measures and demonstrate their compliance with this Order;

[…]

(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.91

125. The CRTC Order also fails to comply with the 2006 Policy Direction.

126. By tilting the competitive playing field significantly in favour of Resellers, the CRTC Order fails to promote all forms of competition and certainly does nothing to support innovation. Instead, it will have the opposite effect. It is the Cable Carriers and other facilities-based competitors that invest and innovate in telecommunications in Canada.

127. The reality is that if the new wholesale rates are allowed to come into force, they will undermine and discourage rather than enable and incentivize both investment and innovation. The flat wholesale pricing structure adopted by the CRTC exacerbates the problem. By mandating that the Cable Carriers make speeds of 500 Mbps or faster available at the same wholesale rates as speeds of 10 Mbps, the CRTC unfairly and unwisely gives Resellers the flexibility of pricing without considering speed – a key factor that


It is the Cable Carriers and other facilities-based competitors that invest and innovate in telecommunications in Canada.
the Cable Carriers have to take into account in pricing their offerings to consumers. The retail pricing decisions that Resellers make will affect the ability of Cable Carriers to earn a reasonable return on higher-speed, higher-value services that are significantly more expensive for the Cable Carriers to provide. This will render uneconomic future investments in new technologies that deliver faster speeds and lower latency. As noted above, Videotron has cancelled its highest speed service due to these very considerations and Shaw has altered its plans to launch higher-speed internet tiers. In effect, the wholesale rates established in the CRTC Order will empower Resellers to appropriate existing networks, while impeding network improvement and expansion – to the detriment of Canadians.

128. To reiterate, the Cable Carriers want to continue to invest significantly in Canada’s wireline networks – including in rural, remote and underserved areas. But they cannot do so if there is no business case for making such investments. The CRTC Order undermines that business case, and indeed essentially eliminates it in significant portions of Canada. This is clear from measures that the Cable Carriers have already announced in the wake of the CRTC Order, as well as: (i) The Brattle Group’s analysis concerning likely reductions in investments in the future; and (ii) TD Bank’s analysis.

129. The consequences associated with reduced investment will seriously jeopardize Canada’s place at the leading edge of the digital economy. The Cable Carriers believe that reduced investment in response to the CRTC Order will cause the Cable Carriers to fall years behind in their technology investment cycles. This is a delay that Canadians simply cannot afford, particularly in view of how quickly technologies in telecommunications continue to evolve throughout the world.
130. Reduced investments in Canada’s wireline networks will be particularly damaging to Canada’s place in the global digital economy as the dawn of the 5G era nears. 5G (that is, “5th Generation” wireless networks) will require massive private sector investment in infrastructure, especially if this technology is to be made available across Canada. Based on preliminary estimates, the capital costs associated with building the infrastructure and deploying 5G in Canada will be in the range of $26 billion.\(^{92}\)

131. 5G technologies are key to Canada’s economic future. Analysis by Accenture Consulting suggests that 5G will add approximately 250,000 permanent, high-paying jobs to the Canadian economy by 2026, and that the annual GDP contribution associated with 5G will be approximately $40 billion by that same year.\(^{93}\)

132. The Government’s connectivity strategy recognizes how important it is that Canada be a leader in 5G technologies:

Fifth generation (5G) technologies are expected to revolutionize the world in the coming years. 5G is capable of offering fibre-like speeds over wireless networks, delivering more data to more devices more quickly.

Many major telecommunications providers are making significant investments so that Canadians will be among the first in the world to benefit from 5G technologies. For example, federal and provincial governments, together with private-sector partners, have developed ENCQOR, a $400 million 5G testbed for Canadian innovators.\(^{94}\)

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133. Investment in improving Canada’s wireline networks is a prerequisite to deploying 5G technologies in this country effectively. 5G networks depend on robust and technologically advanced wireline networks. Wireline infrastructure will play a crucial role in managing the massive amounts of internet traffic that 5G will generate. If Canada’s wireline networks do not evolve and expand, they will become the “bottleneck” that blocks 5G from being implemented successfully.95

134. The CRTC Order, if allowed to come into effect, will also create uncertainty concerning the extent to which future regulatory decisions in Canada can be expected to support infrastructure investment. This will increase the risks associated with not just wireline but also wireless network investments, thereby jeopardizing the business case for all such investments.

E. Relief Requested

135. For all of these reasons, the Cable Carriers petition the Governor in Council to assist in restoring much-needed balance to the CRTC’s wholesale high-speed access regulatory framework. The promotion of access to high-speed broadband services by all Canadians, the future of Canada’s wireline network infrastructure, and Canada’s place at the leading edge of the digital economy depend on achieving a more appropriate and effective regulatory regime that

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takes into account the need to foster all forms of competition as well as the importance of incentivizing investment.

136. The Cable Carriers therefore respectfully request that the Governor in Council issue an Order pursuant to Section 12 of the *Telecommunications Act* referring the CRTC Order of August 15, 2019 back to the CRTC for reconsideration, taking the following matters into account:

(a) the final rates for wholesale high-speed access services (aggregated and disaggregated) should be established in conjunction with the CRTC’s pending broader review of the wholesale high-speed access regulatory framework, and not before that review is completed; and

(b) the final rates should take into account the Canadian telecommunications policy objectives set out in section 7 of the *Telecommunications Act*, and particularly paragraphs 7 (a), (b) and (f), and the following matters that are relevant to achieving those objectives:

(i) all Canadians, including those in rural and remote areas, should have access to existing and next generation broadband technologies to enable them to participate fully in the digital economy and society;

(ii) the wholesale high-speed access regulatory regime should encourage innovation and ongoing investment in developing and deploying world-leading broadband technologies that provide the foundation for Canada’s digital development, innovation, economic growth and international competitiveness;

(iii) the regime should promote affordability for consumers in a balanced, symmetrical and sustainable manner that also provides all Canadians with reliable, high quality services and access to continually evolving technology, by allowing facilities-based competitors to:

(A) recover the actual costs associated with their actual wireline networks, rather than hypothetical costs associated with notional networks that would not be capable of providing high-speed access services to the same number of consumers and / or of the same quality; and

(B) realize a reasonable return on their investments;
(iv) Canadian companies should be able to finance and deploy advanced wireline technologies that are fully competitive with the most advanced technologies used in other countries.

137. The Cable Carriers also respectfully request that, to the extent necessary, the Governor in Council issue an Order pursuant to Section 12 of the *Telecommunications Act* varying the CRTC Order to stay or suspend its coming into force until:

(a) the final disposition of this Petition;

(b) completion by the CRTC of the framework review referred to above; and

(c) the issuance by the CRTC of any new or revised final wholesale rates for aggregated high-speed access services.

138. The Cable Carriers also respectfully request that the Governor in Council issue an Order pursuant to Section 12 of the *Telecommunications Act* varying the CRTC Order to state that final wholesale rates established by the CRTC as a result of its reconsideration of the Order shall not apply retroactively, and instead shall only have prospective effect.

139. Finally, the Cable Carriers respectfully request that the Governor in Council issue an Order pursuant to Section 12 of the *Telecommunications Act* varying the CRTC Order such that during the pendency of the stay or suspension referred to in paragraph 137 above, the following wholesale rates for aggregated high-speed access services shall apply:

(a) in the case of Cogeco, Rogers, Shaw and Videotron, the Interim Rates established in Telecom Order CRTC 2016-396; and

(b) in the case of Eastlink, the proposed rates filed by Eastlink with the CRTC in Tariff Notice 37A dated March 6, 2017.
ALL OF WHICH is respectfully submitted this 13th day of November, 2019.

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Natalie MacDonald
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Paul Cowling
Senior Vice President, General Counsel & Regulatory Affairs

Quebecor Media Inc.
(on behalf of its affiliate Videotron Limited)
Dennis Béland
Vice-President, Regulatory Affairs, Telecommunications
APPENDIX A

to the Petition to the Governor in Council
pursuant to Section 12 of the Telecommunications Act
Analysis of CRTC’s Final Rates for Aggregated Wholesale High-Speed Access Services: IMPACT ON BROADBAND NETWORK INVESTMENT AND INNOVATION

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November 13, 2019
Notice

• This Report was prepared for Bragg Communications Inc. (carrying on business as Eastlink), Cogeco Communications Inc., Rogers Communications Canada Inc., Shaw Cablesystems G.P., and Videotron Ltd., in connection with their appeals to Cabinet and the CRTC in relation to the CRTC’s Telecom Order 2019-288.

• We acknowledge the valuable contributions of many individuals to this Report and the underlying analysis, including members of The Brattle Group for peer review.

• The Report reflects the analyses and opinions of the authors. All results and any errors are the responsibility of the authors and do not represent the opinion of The Brattle Group or its clients.

• There are no third-party beneficiaries with respect to this Report, and The Brattle Group does not accept any liability to any third party in respect of the contents of this Report or any actions taken or decisions made as a consequence of the information set forth herein.

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Abstract

We estimate that the final wholesale access rates set out in *Telecom Order CRTC 2019-288* will result in lost operating margins for the Cablecos (relative to the prevailing interim rates), on a net present value basis over the coming five-year period, ranging from $2.6 billion to $3.7 billion. These impacts translate to a range of 38% to 54% of planned broadband capital expenditures over this same five-year time horizon. This strongly suggests that the new rates will significantly diminish the Cablecos’ incentive and ability to invest in broadband networks to the detriment of service, innovation, and facilities-based competition.
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I. Executive Summary

A. Background

1. The Canadian Radio-television and Telecommunications Commission (“CRTC”) regulates wholesale high-speed access services for broadband internet by mandating that the incumbent network (or “facilities-based”) cable or telephone carriers provide network access and services to non-facilities-based internet service providers at regulated rates. This allows non-facilities-based providers (or “resellers”) to sell their own retail internet services to end-users in competition with the network providers in their respective regions with minimal investment in network deployment by these resellers.

2. While the CRTC’s wholesale access regime fosters increased competition in the retail broadband marketplace, it is the investments made by facilities-based competitors in their networks that drive the breadth, robustness, speed, and reliability of Canada’s broadband networks. Through capital spending, facilities-based providers reinvest substantial portions of their profits to extend their networks and to keep up with consumers’ ever-increasing demands for bandwidth and capacity. Such investments are typically required in industries that face rapid technological change, have significant fixed and sunk costs, and face robust facilities-based competition. These investments also give rise to new services, improved quality, and increased innovation. These investments, however, are only undertaken when facilities-based providers can earn a reasonable return on investment that is commensurate with the risk associated with the investments. While wholesale access regulation can foster increased competition in the short run, it can come at a cost in the long run: wholesale regulations mandating access can negatively impact the nature and level of network investment, as facilities-based carriers will not accrue the entirety of the benefit from the stream of profits generated from their investments and, as such, some of those investments will become less likely.¹

¹ Delivering Choice: A Study of Competition in Canada’s Broadband Industry, Competition Bureau, August 7, 2019, pp. 44-47.
3. In attempting to establish “just and reasonable rates” for both network providers and resellers as part of the wholesale access regime, the CRTC faces what the Competition Bureau referred to in its recent broadband industry market study as a Goldilocks problem: “set rates too low, and facilities-based competitors are less likely to invest; set rates too high, and wholesale-based competitors are not able to bring pricing discipline to the marketplace.”

4. The issue, then, is whether the CRTC struck the right balance in setting its final rates. In *Telecom Order CRTC 2019-288* (the “Order”), the CRTC established final rates for aggregated wholesale high-speed access services in Canada (the “Final Wholesale Rates”). The Order followed a more than three-year assessment of multiple sets of cost studies from the network providers, as these costs are a significant factor in considering what are just and reasonable rates. The Final Wholesale Rates established in the Order are uniform across network speeds, significantly lower on average than the prevailing interim rates, and also require the network operators to pay retroactive fees to resellers reflecting those lower rates (for the three year period since the interim rates were established).

**B. Summary of Analysis and Results**

5. Canada’s cable companies (the “Cablecos”) have asked us to assess and quantify the likely impact of the Final Wholesale Rates on their operating cash flows from their consumer broadband businesses and broadband network investment incentives as compared to the same under the interim rates. Our analysis uses the interim rates as a benchmark for comparison because these were the prevailing rates at the time of the Order; we do not

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4 Namely, Bragg Communications Inc. (carrying on business as Eastlink), Cogeco Communications Inc., Rogers Communications Canada Inc., Shaw Cable Systems G.P., and Videotron Ltd.

5 The Cablecos have also collectively sought from the Federal Court of Appeal a stay of the Order (which was granted on an interim basis) and leave to appeal on the basis that the Final Wholesale Rates are not just and reasonable. Federal Court of Appeal, Memorandum of Fact and Law (Motion for Leave to Appeal Pursuant to Section 64(1) of the Telecommunications Act), Bragg Communications Incorporated (c.o.b. Eastlink), Cogeco Communications Inc., Rogers Communications Canada Inc., Shaw Cable Systems G.P. and Videotron Limited v. British Columbia Broadband Association, Canadian Network Operators Consortium Inc., Distributel Communications Limited, Ice Wireless Inc., Public Interest Advocacy Centre and Vaxination Informatique, September 12, 2019.
analyze the reasonableness of the interim rates in this report. Indeed, we understand that some of the Cablecos have filed submissions arguing that even the interim rates are too low to recover their costs. While it is outside the scope of our report to opine on the reasonableness of any rates, to the extent that our analysis were replicated with higher rates as a benchmark in the place of the interim rates, the estimated impacts on investment would be even larger than those we estimate.

6. In this report, we first examine the relationship between historical network investment and network service quality as reflected in changes in speed over time, with speed measured in terms of Megabits per second ("Mbps"). We observe and estimate a strong correlation between the Cablecos’ network investments and network speed. In particular, the strong correlation between download speed and investment over the period 2009 to 2017 implies that a 10% increase in broadband investment is typically associated with a 25% increase in download speed. Based on this relationship, and holding all other factors constant, lower investment by the Cablecos would likely negatively impact increases in broadband speed going forward, resulting in poorer network performance than would otherwise have been the case absent the lower network investment, and making broadband consumers worse-off by delaying higher quality broadband services.

7. We then analyze the impact of the Final Wholesale Rates on Cablecos’ operating cash flows from their consumer internet businesses and investment incentives through a differential cash flow analysis, a standard financial analysis used to compare the relative impact of a policy change. Specifically, our analysis assesses the Cablecos’ incremental operating margins over the coming five-year period (2020 to 2024) under the prevailing interim rates as compared to those following implementation of the Final Wholesale Rates. This analysis

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6 See, e.g., Telecom Decision CRTC 2017-167, Bragg Communications Incorporated, operating as Eastlink, Application to review and vary or stay Telecom Order 2016-448 regarding wholesale high-speed access service interim rates, 25 May 2017.

7 While we use network speed as a measurable benchmark for network performance, it is important to note that investments impact far more than just network speed, including capacity, and quality/breadth of service.

8 Our differential cash flow analysis is based on the Cablecos’ operating cash flows, which is a measure of the cash generated from normal business operations, before costs such as taxes, interest, and long-term capital investment. Unless otherwise noted, all references to margins or cash flows in this report refer to operating margins or operating cash flows, which are calculated on the basis of costs that are incremental to broadband only. “Incremental operating margins” refer to the increased operating cash
allows us to compare the expected decrease in the Cablecos’ operating cash flows from their consumer internet businesses to their projected broadband capital expenditures over the same period in order to assess the relative magnitude of the impacts and potential implications for investment. This analysis is conducted at the level of each individual Cableco, and then aggregated across all Cablecos to obtain the overall industry impact presented in this report.

8. In order to estimate this change in the Cablecos’ incremental operating margins, we are required to make certain assumptions about how the market will evolve under the Final Wholesale Rates as compared to how it would have evolved under the prevailing interim rates (or “status quo”). In particular, we make assumptions regarding two factors: (1) the growth in reseller market share over time (and corresponding adjustments to Cableco market share); and (2) the growth rate in the Cablecos’ average revenue per user (“ARPU”) over time. All else equal, higher (lower) levels of reseller growth in market share and lower (higher) ARPU growth for the Cablecos will increase (decrease) the magnitude of the investment impact from the lower rates.

9. We consider three distinct scenarios for this comparison, with each scenario meant to capture slightly different assumptions regarding the evolution of the market:

- **Scenario A**: we consider a “moderate” reseller growth scenario that is meant to reflect an evolution of competition in the market under which resellers become more aggressive with pricing than under the status quo, resulting from the much lower wholesale input costs and facing a single access rate for all speeds, in order to capture additional market share than they otherwise would have under the interim rates. In response, the Cablecos slightly lower their rate of ARPU growth.

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9  Specifically, we undertake a financial analysis for each Cableco, building from the bottom up (based on actual financial information obtained from each Cableco) its operating cash flows from consumer internet at retail and from wholesale access to resellers at each speed tier, including and accounting for pricing by tier and operating expenses by line of business.

10 For the specific assumptions applied in each of the scenarios outlined below, see section B. The same section also identifies several conservatisms built into our analysis, which means the impacts on investment may be greater than what we estimate in this report.

11 The “status quo” against which we conduct each of the comparisons assumes the market shares and the Cablecos’ prices would continue to evolve according to recent market trends.
• **Scenario B**: we consider a “higher” reseller growth scenario that is meant to reflect a similar evolution of the market as Scenario A, but assuming resellers achieve a greater market share increase due to the modest response from the Cablecos in the form of slightly lower ARPU growth.

• **Scenario C**: we consider an alternative to Scenario B that is meant to reflect an evolution of the market similar to the “higher” reseller growth scenario, but assuming that the greater market share of resellers places additional downward pricing pressure on the Cablecos’ ARPU growth.

10. These three scenarios provide a range of possible impacts of the Final Wholesale Rates on the expected change in the Cablecos’ operating cash flows based upon different high-level assumptions regarding how competition may evolve as a result of the reduction in the wholesale costs that resellers face. Each scenario shows a negative impact of the Final Wholesale Rates on Cablecos’ incremental operating margins and, subsequently, their incentive and ability to invest in their broadband networks—i.e., expected lowering of dynamic efficiencies.

11. Overall, through this differential cash flow analysis, we estimate that the Final Wholesale Rates will result in lost operating margins for the Cablecos (relative to the prevailing interim rates), on a net present value basis over the coming five-year period, ranging from $2.6 billion (in Scenario A) to $3.7 billion (in Scenario C). These impacts translate to a range of 38% to 54% of total planned broadband capital expenditures by the Cablecos over this same five-year time horizon. This strongly suggests that the Order will significantly diminish the Cablecos’ incentive and ability to invest in broadband networks to the detriment of service, innovation, and facilities-based competition.¹²

12. To frame the analyses described above, we also provide a summary of the relevant academic research that studies the impact of wholesale access regulations on investment decisions and innovation of facilities-based suppliers. ¹³ The literature demonstrates that the key consideration in determining optimal resale policies is the trade-off between “static

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¹² The Cablecos have expressed the view that the proportion of capital expenditures likely to suffer the most (or be eliminated entirely) is that relating to network improvement and expansion (e.g., speed increases and network expansion in rural areas), as opposed to capital expenditures relating to the servicing of existing customers (e.g., required maintenance of existing infrastructure).

¹³ The literature is summarized briefly in the body of the report and in more detail in Appendix A – Literature Review.
efficiency” (which primarily considers prices and demand for existing goods and services) and “dynamic efficiency” (which considers innovation and the introduction of new goods and services). If facilities-based providers expect to face pricing that will not allow them to recover their forward-looking sunk costs or earn a sufficient rate of return, they will not have the incentive to make the same level of investments. This leads to suboptimal levels of investment, and thus dynamic inefficiency in the long run. This literature also discusses the effects of regulatory uncertainty on incentives to invest and the lessons learned from recent experiences of mandated wholesale access in Europe. This body of economics literature is consistent with the outcomes of our analyses, as well as our understanding of the positions of the Cablecos in their appeals of the Order.

II. Assignment

13. We have been retained jointly by Bragg Communications Inc. (carrying on business as “Eastlink”), Cogeco Communications Inc. (“Cogeco”), Rogers Communications Canada Inc. (“Rogers”), Shaw Cablesystems G.P. (“Shaw”), and Videotron Ltd. (“Videotron”) (collectively, the “Cablecos”) to prepare this report in connection with their appeals to Cabinet and the Canadian Radio-television and Telecommunications Commission (“CRTC” or “Commission”) in relation to the CRTC’s establishment of final rates for aggregated wholesale high-speed access services (the “Final Wholesale Rates”) in Telecom Order CRTC 2019-288 (the “Order”).

14. The Cablecos have asked us to assess and quantify the impact of the Final Wholesale Rates on their operating cash flows for consumer broadband and network investment incentives as compared to the status quo.

15. This report is structured as follows. In Section III, we provide relevant industry background on the Canadian broadband industry and the wholesale access regime. In Section IV, we summarize relevant academic research that illustrates the impact of wholesale access regulations on investment decisions and innovation of facilities-based suppliers (a topic which is covered in greater detail in Appendix A). In Section V, we empirically estimate the

14 Author biographies are included in Appendix B – Author Biographies.
impact of the Final Wholesale Rates on the Cablecos’ operating cash flows for consumer broadband and their incentive to invest in broadband networks. Section VI concludes.

III. Industry Background

A. Competitive Landscape of the Canadian Broadband Industry

16. The CRTC classifies broadband service providers according to two broad categories: (1) incumbent telecommunications service providers (or “Incumbent TSPs”); and (2) alternative service providers, which include cable-based carriers (or “Cablecos”); other facilities-based service providers, and resellers.

17. The broadband sector accounted for approximately $11 billion in revenues in 2017. Sales to residential customers represented 83% of revenues and sales to business customers represented 17%. $10.3 billion in revenues was related to access, while the remaining $0.7 billion came from applications, equipment, and other internet-related services. According

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15 In other publications, the CRTC also refers to large Incumbent TSPs as Incumbent Local Exchange Carriers (“ILECs”). These are companies “which provided local telecommunications services on a monopoly basis prior to the introduction of competition….” The “Large Incumbent TSPs” are TELUS, SaskTel (owned by the provincial government of Saskatchewan), Bell Canada and Bell’s regional subsidiaries – Bell Aliant, Bell MTS, Northwestel, and Télébec. “Small Incumbent TSPs” serve relatively small geographical areas. [CRTC, Communications Monitoring Report 2018, Table 4.9].

16 Cablecos are former cable monopolies that now also provide telecommunications services. [CRTC, Communications Monitoring Report 2018, Table 4.9].

17 Examples include Zayo and Hydro One Telecom. These include utility providers and carriers that own physical transmission facilities. [CRTC, Communications Monitoring Report 2018, Table 4.9].

18 Examples include Distributel Communications, TekSavvy Solutions, and Verizon Canada. These companies generally provide services by leasing others’ facilities and reselling those services. [CRTC, Communications Monitoring Report 2018, Table 4.9].

19 CRTC, Communications Monitoring Report 2018, Table 4.5.
to the CRTC’s “Service Providers Near Me” online database, there are 281 unique internet service providers across Canada, including facilities-based service providers and resellers.

18. As shown in Figure 1, Incumbent TSPs and cable-based carriers together accounted for approximately $8.8 billion of access-related internet revenues in 2017, and “other service providers” (which include resellers, as well as other facilities-based service providers) accounted for the remaining $1.4 billion. Other service providers experienced the fastest rate of growth in access-related revenues between 2013 and 2017, growing at a compound average rate of 17% per year, followed by Incumbent TSPs at 10% and cable-based carriers at 7%. As a result, the share of access-related revenues captured by other service providers rose from 11% in 2013 to 14% in 2017.

19. As noted in the Competition Bureau market study, “these market share figures may not represent the actual competitive reality in Canada [because] performing a market share analysis at a national level will not always represent the actual competitive reality for Canadian consumers in more local areas.” The Competition Bureau specifically noted that resellers have tended to “focus their marketing efforts on highly populated areas in Southern Ontario and Southern Quebec,” achieving market shares in those regions of 16% to 19.

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21 CRTC, Communications Monitoring Report 2018, 2018 CMR Telecom Overview, Tables 5.4 and 5.5.
B. Trends in Broadband Investment and Performance

20. Facilities-based providers account for a disproportionate share of investment in telecommunications plant and equipment as compared to resellers, as shown in Figure 2.\textsuperscript{24}

\textsuperscript{24} CRTC, Communications Monitoring Report 2018, 2018 CMR Telecom Overview, Table 4.12; CRTC, Communications Monitoring Report 2017: List of Tables and Figures, Table 5.0.5.
Figure 2: Telecommunications Investment in Wireline Plant & Equipment by Provider Type 2013-2017

Facilities-based providers together accounted for 99.6% of telecommunications investments made in wireline plant and equipment during the period 2013 through 2017, while resellers accounted for only 0.4% (see Figure 3). In fact, the compound annual growth rate in telecommunications investment during this period was 4.4% for Incumbent TSPs, 18.9% for cable-based carriers and other facilities-based service providers, and -8.2% for resellers – that is, annual investment by resellers was, on average, declining between 2013 and 2017 (see Figure 4).
Figure 3: Share of Investment in Wireline Plant & Equipment 2013-2017
(100% = $41.25 Billion)

Sources:
CRIC, Communications Monitoring Report 2018, 2018 CMR Telecom Overview, Table 4.12;
CRIC, Communications Monitoring Report 2017-List of Tables and Figures, Table 5.6.5.
From an incentives perspective, as resellers become even more dependent on the networks of traditional telephone service providers and cable providers (given the significant reduction in wholesale rates), they are likely to provide even less technological competition at the margin.

Yet, for the broadband marketplace, innovation remains critical to meeting consumer demand. Data from the CRTC indicates that Canadian residential consumers have increasingly been subscribing to plans that offer not only faster internet services, but also more capacity. As shown in Figure 5, the weighted-average download speed for residential internet service increased more than fourfold from 15.5 Mbps in 2013 to 68.3 Mbps in 2016, while the weighted average upload speed increased from 3.0 Mbps to 15.0 Mbps during this
At the same time, the weighted-average download/upload limit across all tiers of residential internet service plans increased from 99.2 GB per month to 214.1 GB per month.

**Figure 5: Weighted Average Download/Upload Speeds and Limits for Residential Internet 2013 - 2017**

Consumers are also demanding and consuming larger amounts of data and bandwidth over time, as shown in Figure 6. There is also a much larger rate of growth of consumption per user than there is for total subscribers.

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25. CRTC, Communications Monitoring Report 2017: List of Tables and Figures, Table 5.3.9 and 5.3.10; CRTC, Communications Monitoring Report 2018, 2018 CMR Fixed Internet Open Data, Table 5.12 and 5.13.

26. CRTC, Communications Monitoring Report 2017: List of Tables and Figures, Table 5.3.9 and 5.3.10; CRTC, Communications Monitoring Report 2018, 2018 CMR Fixed Internet Open Data, Table 5.12 and 5.13.
In terms of pricing, the CRTC reports that “[w]hile some packages have experienced price declines, these declines have been offset by movement towards larger, faster packages.” For example, the average monthly revenue per subscriber across all residential internet plans increased from $49.64 in 2013 to $65.52 in 2017 (an increase of 32%), with decreases in lower-speed packages and increases in higher-speed packages, while average download speed increased from 15.5 Mbps to 68.3 Mbps over this same period (an increase of over 340%), as noted above. This observation is consistent with the trend towards a dynamically efficient marketplace – while prices have gone down for lower-speed packages, consumers have chosen to pay more for broadband internet by subscribing to newer, higher-speed packages. On a price per megabyte basis, however, prices have been decreasing.

C. Overview of Aggregated Wholesale Access Regime and Rates

26. A policy motivation for mandating wholesale access for resellers is to lower the barriers that they face to entering and expanding in the broadband market and thus fostering greater retail competition with more choice and lower prices for consumers. In theory, this can improve static efficiency if the increase in competition is welfare-enhancing. However, low prices and more choice are not the only policy objectives at play – among other things, regulators also want to foster competition amongst facilities-based providers to encourage investment and innovation that improves the products and services offered to consumers (i.e., dynamic competition). Thus, as the Competition Bureau has stated, there is an important tradeoff when setting mandated wholesale access rates for resellers.  

27. Because the CRTC has decided that a wholesale access regime is, on balance, important and beneficial for Canadian consumers, it faces what the Competition Bureau referred to in its recent Broadband industry market study as a Goldilocks problem: “set rates too low, and facilities-based competitors are less likely to invest; set rates too high, and wholesale-based competitors are not able to bring pricing discipline to the marketplace.” Hence, when establishing rates, the CRTC states that it aims to establish rates that are “just and reasonable,” both with respect to the promotion of innovation by the incumbent network operators and the lowering of prices for consumers.  

28. In 2008, the CRTC reaffirmed the mandated provision of aggregated wholesale high-speed access (“HSA”) service by the traditional telephone service providers and major cable

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29 Delivering Choice: A Study of Competition in Canada’s Broadband Industry, Competition Bureau, August 7, 2019, p. 49.


31 Telecom Order CRTC 2019-288, Follow-up to Telecom Orders 2016-396 and 2016-448 – Final rates for aggregated wholesale high-speed access services, August 15, 2019: “In this order, the Commission sets final rates for the wholesale HSA service providers’ aggregated wholesale HSA services that are just and reasonable. The Commission considers that the final rates will facilitate greater competition and promote innovative broadband services and more affordable prices for consumers.”
providers, including Shaw, Rogers, Cogeco, and Videotron. This aggregated wholesale HSA service included access, usage, and interface components, allowing resellers to provide service with a minimal amount of their own infrastructure.

29. In 2011, the CRTC revised how network providers would bill independent service providers for wholesale HSA services. The rates published in these 2011 regulatory policies replaced previous interim rates and were implemented in February 2012.

30. In March 2016, the CRTC reverted all previously approved wholesale HSA service rates to interim status. These interim rates were revised (generally lowered) in October 2016, and as part of this change, all wholesale HSA providers were required to submit updated “cost studies” in order to set final rates.

31. In August 2019, the CRTC set the Final Wholesale Rates. Figure 7 below summarizes the evolution of the access rates for each of the Cableco’s from 2011 to the prevailing interim rates to the Final Wholesale Rates established in the Order. Figure 8 does the same for the capacity rates.

32 CRTC, Telecom Decision 2008-17, March 3, 2008. Note that Eastlink was not yet included in the regulations at this time. Telecom Decisions CRTC 1998-9 and 1999-8 originally established wholesale HSA requirements for cable carriers.

There was some controversy as to the level of aggregation required of the cable companies; the subsequent 2010 Policy clarified that “cable carriers should modify their TPIA [Third-Party Internet Access] services to provide competitors with access through as few points of interconnection as possible.” [CRTC, Telecom Regulatory Policy 2010-632, August 30 2010, ¶ 88].


In Telecom Regulatory Policy 2010-632, the Commission specified that this mandated aggregate wholesale obligation extended only to existing technologies; any new technologies would be dealt with on a case-by-case basis under the essential services framework. Most importantly, the aggregate wholesale obligation excluded Fibre-to-the-Premises (“FTTP”) services. This policy also confirmed a requirement that traditional telephone service providers and cable-based carriers provide speeds for resale equal to those provided to their own customers with the same technology (i.e., “speed matching”).


Figure 7: Summary of Aggregated Wholesale Access Rates (2011-2019)¹

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Notes:
1. There were other rate changes not reflected here.
2. Eastlink had the following rates established in May 2016, prior to the interim 2016 rates: 20-50 DL / 2-5 UL, $29.83; 100 DL / 10 UL, $54.24; 150-400 DL / 10 UL, $98.55. DL refers to download speed. UL refers to upload speed.

Sources:
[C] CRTC 2011-703; Rogers TN 45A, Table 11; CRTC 2019-288.
IV. Wholesale Access Regulation Diminishes the Investment Incentives of Facilities-based Service Providers

32. The effect of wholesale access regulation on network investment incentives is borne out in a broad and robust economics literature (which we summarize in this section and review in more detail in Appendix A).

33. We identify several important findings from the relevant economics literature that help illustrate the disincentive effect of wholesale access regulation:

- The literature demonstrates that the key consideration in determining optimal resale policies is the trade-off between static and dynamic efficiency. The usual economic argument for mandated access regulation is the “stepping stone” or “ladder theory of investment.” However, contrary to the “ladder theory,”

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37 The “ladder theory of investment” should not be confused with the “ladder of investment,” which refers to the different stages of investment over the life cycle of a firm or an industry, with each additional stage building on top of the progress from the previous stages.
imposing mandated cost-based rates can negatively impact dynamic efficiency. Indeed, some early adopters of the “ladder theory” have since acknowledged the practical limitations of the theory, although there is no consensus view.

- If facilities-based providers expect to face pricing that will not allow them to recover their forward-looking sunk costs or earn a sufficient rate of return, they will not have the incentive to make the same level of investments. This leads to suboptimal levels of investment, and thus dynamic inefficiency in the long run.

- Competition is preferable to regulation in achieving efficient outcomes in the absence of market failures. Consequently, policies that mitigate the market failures tend to be more successful with fewer negative side-effects than policies that accept the market failures and directly regulate market outcomes.

- Over-broad price regulation can diminish incentives for long-term investment in infrastructure. The literature also demonstrates the numerous challenges of regulating prices in a manner that avoids this disincentive effect on investment.

- Empirical studies have found that mandated resale regulation discourages infrastructure investment by traditional facilities-based service providers and has not led entrants to invest in their own facilities. Indeed, an extensive survey of operators in Europe supports that such regulation has a negative impact on the incumbents and new entrants, and negatively affects investment by incumbents and individual entrants. Further, the EU Commission and Parliament recently recognized the deterrent effect of resale regulation on investment in high speed networks.

- Investment in wireline broadband infrastructure has the feature of being both irreversible and made under uncertainty. When a firm decides to make an investment in infrastructure that is irreversible, it effectively exercises a call option by foregoing the opportunity to invest at a later point when it would have more certain information. The literature demonstrates that failing to account for the option value of investments results in resale pricing below the dynamically efficient level.

- When there are different qualities of a single type of service (e.g., different speeds), the regulator has a choice of setting a uniform price or one that differentiates between the quality levels of goods. Economic theory explains that
a differentiated pricing structure will achieve efficiency in this context and maximize the static output, while a uniform pricing leads to deadweight loss and inefficiency.

- If a company perceives that there is a risk that a regulator will opportunistically change its stated pricing policies after the company has commercialized its product, the company may delay or even forgo sinking its capital into the investment supporting this product. Economic theory indicates abrupt deviations from these established guidelines may lead to regulatory uncertainty, the impact of which can be to discourage investment by companies in their networks.

V. Empirical Analysis of the Impact of the CRTC’s Final Wholesale Rates on Cablecos’ Network Investments

A. Relationship Between Cablecos’ Network Investment and Performance

34. We analyze the relationship between historical network investment and performance (specifically, speed) to assess the potential performance impact of any decrease in investment resulting from the Order.

35. As shown in Figure 9 below, we observe and estimate a strong correlation between the Cablecos’ network investments and network speed over time. In particular, the correlation coefficients between download/upload speed and investment over the period 2009 to 2017 is 0.9, and implies that a 10% change in broadband investment is typically associated with an up to 25% change in download speed.  

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38 This estimate of the relationship between investment and speed is derived from a simple statistical model of the elasticity (or responsiveness) of download speed with respect to changes in investment by Cablecos. The 10% change in investment is arbitrarily selected for illustration purposes of the relationship with download speed.
This relationship is illustrative of the proposition that any lower levels of network investment by the Cablecos resulting from the Final Wholesale Rates – which is the subject of our analysis below – will likely negatively impact increases in broadband speed going forward. This, in turn, will result in poorer network performance than would otherwise have been the case, and make broadband consumers worse-off by delaying higher quality broadband services. This is in addition to any decisions the carriers undertake to limit or delay network investment in certain regions, such as rural areas.
B. Impact of Final Wholesale Rates on Cablecos’ Operating Cash Flows for Consumer Broadband and Network Investment Incentives

37. We implement a differential cash flow analysis in order to estimate the Cablecos’ incremental operating margins under the prevailing interim rates as compared to those following implementation of the Final Wholesale Rates.39 We undertake this analysis at the level of each individual Cableco, and then aggregate across all Cablecos to obtain the overall industry impact presented in this report.40

38. Central to assessing the impact of the Final Wholesale Rates on Cablecos’ operating cash flows is forecasting how the marketplace will evolve under these rates.41 We consider three distinct scenarios for this comparison, with each scenario based on slightly different assumptions regarding two key factors relating to the future evolution of the market: (1) the growth in reseller market share over time (and corresponding adjustments to Cableco market share); and (2) the growth rate of the Cablecos’ ARPs over time. The “status quo” against which we conduct each of the comparisons assumes the market shares and the Cablecos’ prices would continue to evolve according to recent market trends.42 Specifically, we consider the following three scenarios:

39. As noted above, we understand that some of the Cablecos have filed submissions that even the interim rates are too low to recover their costs. Our report does not opine on the reasonableness of any rates.

40. If this analysis were to be conducted at different geographic regions within each Cableco (for example, in rural areas), the impact on investment could be larger due to the lower revenue streams and higher per-unit costs.

41. Economic theory predicts that, given lower costs, resellers would likely lower their retail prices in order to gain market share, and in response Cablecos would also lower their own prices. The impact range we present in this report is illustrative of a reasonable range of outcomes, but does not represent absolute lower and upper bounds. Generally, the impact of the Final Wholesale Rates on Cablecos’ operating cash flows will be larger (a) the higher the growth in reseller market share and/or (b) the greater the fall in Cableco ARPU. Conversely, the impact of the Final Wholesale Rates will be smaller (a) the lower the growth in reseller market share and/or (b) the lesser the fall in Cableco ARPU.

42. In particular, we use the average year-over-year changes in market share and ARPU for the prior three year period.
• **Scenario A:** we consider a “moderate” reseller growth scenario whereby: (1) reseller market shares grow over time such that they achieve a market share by 2024 that is 5 percentage points higher than it would have been under the status quo growth scenario; and (2) Cableco ARPUs would grow at a slightly slower rate than recent historical growth – namely, the rate of inflation of 1.9%. This scenario is meant to reflect an evolution of the market under which resellers become more aggressive with pricing than under the status quo in order to capture additional market share than they otherwise would have under the interim rates, and in response the Cablecos slightly lower their rate of ARPU growth.

• **Scenario B:** we consider a “higher” reseller growth scenario whereby: (1) reseller market shares grow over time such that they achieve a market share by 2024 that is 10 percentage points higher than it would have been under the status quo growth scenario; and (2) as in the moderate reseller growth scenario, Cableco ARPUs would grow at a slightly slower rate than recent historical growth – namely, the rate of inflation of 1.9%. This scenario is meant to reflect a similar evolution of the market than Scenario A, but assuming resellers achieve a greater market share increase as compared to the status quo.

• **Scenario C:** we consider an alternative to the “higher” reseller growth scenario where we simply adjust the Cableco ARPU growth rate downwards from the rate of inflation of 1.9% to 0% (i.e., zero growth). This scenario is meant to reflect an evolution of the market similar to Scenario B, but assuming that the greater

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43 In each scenario, any growth in reseller market share comes at the expense of the incumbent Cableco and Incumbent TSP in proportion to their relative market shares.

44 Statistics Canada, Table 18-10-004-13 Consumer Price Index by product group, monthly, percentage change, not seasonally adjusted, Canada, provinces, Whitehorse, Yellowknife and Iqaluit.

We note that any price decreases to consumers could generate benefits to the economy in the form of increased allocative efficiency and consumer welfare, which would need to be viewed in trade-off to the effects on investment that we have been asked to quantify in this report.

45 ARPU can increase even if prices do not change as consumers switch from lower to higher value tiers or packages.
market share of resellers places additional downward pricing pressure on the Cablecos.46

39. Each of the above scenarios is consistent with the Cablecos' belief that resellers may lower (or may have already lowered) their prices in response to the Order (and may change to a “flat” or, at the least, flatter structure across speed tiers given the uniformity of the Final Wholesale Rates), in an attempt to capture additional market share, which may put downward pricing pressure on the Cablecos. These lower prices imply gains to consumers, i.e., increases in allocative efficiencies, at least in the short run. These efficiencies are part of the trade-off regulators face when implementing a policy, i.e., the “Goldilocks problem” noted by the Competition Bureau. Assessing this tradeoff is beyond the scope of our assignment; nevertheless, as noted in the literature, discouraged investment by facilities-based service providers in new technologies can lead to “first-order” social welfare losses that are substantially larger than any static gains from regulation because innovation and new technologies would not be introduced to consumers optimally.47

40. For each of the three scenarios outlined above, we then compare the expected net present value of incremental operating margins to the net present value of projected broadband capital expenditures of the Cablecos to gauge the potential impact of the Final Wholesale Rates on the continued incentive and ability of Cablecos to realize those planned network investments.48

41. Our results are presented in Figure 10 below.

- Overall, through this differential cash flow analysis, we estimate that the Final Wholesale Rates will result in lost operating margins (relative to the prevailing interim rates) for the Cablecos, on a net present value basis over the coming five-

46 To the extent that the Cablecos’ ARPUs were to decrease year over year, which certain Cablecos have expressed is likely to occur, the incremental operating margin impact would be even more negative than what we estimate in this report.


48 As our analysis focuses on broadband capital expenditures, because the Cablecos operate shared coaxial networks across video, broadband and telephony we rely on some carrier allocations from ordinary course of business management accounting statements.
year period, in the range of $2.6 billion (in Scenario A) to $3.7 billion (in Scenario C).

- These impacts translate to a range of 38% to 54% of planned broadband capital expenditures over this same five-year time horizon.

**Figure 10: Lost Net Present Value of Incremental Operating Margins, 2020 to 2024 ($ Millions)**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>-$211</td>
<td>-$375</td>
<td>-$525</td>
<td>-$663</td>
<td>-$792</td>
<td>-$2,566</td>
</tr>
<tr>
<td>% of Planned 2020 to 2024 Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-38%</td>
</tr>
<tr>
<td>Scenario B</td>
<td>-$222</td>
<td>-$403</td>
<td>-$576</td>
<td>-$743</td>
<td>-$909</td>
<td>-$2,853</td>
</tr>
<tr>
<td>% of Planned 2020 to 2024 Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-42%</td>
</tr>
<tr>
<td>Scenario C</td>
<td>-$288</td>
<td>-$527</td>
<td>-$750</td>
<td>-$955</td>
<td>-$1,149</td>
<td>-$3,669</td>
</tr>
<tr>
<td>% of Planned 2020 to 2024 Capital Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-54%</td>
</tr>
</tbody>
</table>

42. The above analysis is conservative (i.e., understates the potential impact on Cableco operating cash flows from consumer broadband and network investment) for several reasons:

- All estimates are calculated on a five-year discounted net present value basis. Any ongoing impacts beyond a five-year horizon are not estimated here.

- The analysis does not include the effect of the retroactive payments that Cablecos are required to make to resellers under the Order. Because past Cableco network investment decisions that relied on those wholesale access revenues are now sunk, these retroactive payments further reduce Cablecos’ funds for current and future network investment.

- The analysis does not account for the reduction in monthly capacity rates (see Figure 8 above), only the new access rates. The Cablecos have expressed that these lower capacity rates will have an additional negative revenue impact because the decrease in revenue from lower rates will not be offset by added revenue from increased usage (e.g., customers switching to “faster” speeds will not substantially
increase data/bandwidth as compared to what they would have consumed with a “slower” speed). 49

- The analysis considers only the Cablecos’ future broadband revenues, and does not account for the fact that when a customer switches from a Cableco to a reseller on that Cableco’s network, to the extent such a customer also switches additional services outside of broadband (e.g., video or telephony services), this would have a further negative impact on revenues and margins across the broader company.

- The lost operating cash flows from our analysis are represented as a percentage of total broadband capital expenditures, but the Cablecos have expressed the view that the proportion of the capital expenditures likely to suffer the most (or be eliminated entirely) is that relating to network improvement and expansion (e.g., speed increases and network expansion in rural areas), as opposed to capital expenditures relating to the servicing of existing customers (e.g., required maintenance of existing infrastructure).

**VI. Conclusion**

43. This report quantifies the lost operating margins the Cablecos face as a result of the Final Wholesale Rates, relative to the prevailing interim rates. Using a range of reasonable assumptions, we find that, on an industry-wide basis, the loss in Cableco operating margins could be upwards of $3.7 billion over the coming five-year period, which represents 54% of planned broadband capital expenditures over the same time horizon.

44. This will decrease the incentive and ability for Cablecos to invest in their Canadian broadband networks and make other non-broadband investments more attractive in comparison. This impact is likely to manifest itself in various ways, including through lower

49 Precisely quantifying the impact from the reduced monthly capacity rates would require an assessment of resellers’ future capacity demand, and is beyond the scope of our current analysis. Nevertheless, assuming that resellers maintain average capacity per subscriber at historical levels, our analysis indicates that Cablecos would face additional losses on a net present value basis of up to $30 million over the five-year period ending 2024 under Scenario A, and up to $45 million under Scenario C.
innovation, slower growth in expected performance and less investment in geographic expansion. As the Competition Bureau noted in its Broadband market study, “the strongest reduction in investment is most likely to be felt in areas where population is relatively sparser. This has significant implications for rural and remote customers, who tend to have fewer and less advanced internet access options in Canada.”

50 Delivering Choice: A Study of Competition in Canada’s Broadband Industry, Competition Bureau, August 7, 2019, p. 49.
Appendix A – Literature Review

45. An efficient telecommunications market requires mitigating any market imperfections so that market forces can efficiently allocate resources. A long-standing concern in telecommunications markets is that any measures put in place to limit perceived market power or foster competition in the near-term should also consider the potential long-term efficiency losses resulting from reduced investment incentives. In the broadband internet sector, this applies particularly to the incentives of facilities-based providers to invest in expanding, maintaining, and improving their network infrastructure. There is a broad consensus in the economics literature that over-broad price regulation can diminish incentives for long-term investment.

46. In this appendix, we review the economics literature on the impact of resale regulation on the wireline broadband industry to highlight the effect of regulatory resale obligations on competition, investment and market efficiency in the telecommunication sector. We begin with a brief overview of the economics of networks, and the consumer welfare considerations of a mandatory resale regime, in terms of dynamic efficiency. We then focus on the economic theory underpinning the decision to invest in network infrastructure and the conditions under which resale obligations disincentivize investment. We also consider the empirical literature where several studies have found support of the hypothesis that mandatory resale policies create disincentives for facilities-based providers to investment in their infrastructure. We then discuss the literature on a uniform rate structure across speeds to assess the implication of that structure in the Final Wholesale Rates. Finally, we discuss the effects of regulatory uncertainty on incentives to invest and the lessons learned from recent experiences of mandated wholesale access in Europe.
A. Dynamic Efficiency: Competition and Investment

47. The literature demonstrates that the key consideration in determining optimal resale policies is the trade-off between static and dynamic efficiency. Static efficiency refers to efficiency in terms of existing products, capital stock and allocation, whereas dynamic efficiency accounts for future investment, research and development, and incentives for new product development, in addition to maximizing the existing productive and allocative efficiency. For instance, perfect competition, where price is equal to the marginal cost of production, maximizes static efficiency. However, perfectly competitive prices yield zero economic profits, and do not allow firms to recover the fixed costs of investing in infrastructure, and affords limited scope for innovation. Differentiated goods markets, on the other hand, may not have static efficiency due to the existence of market power, but may still be dynamically efficient in certain circumstances.

48. Theoretical and empirical evidence in the current telecommunications/broadband markets suggest that dynamic efficiency may be best served by facilities-based service providers expanding and upgrading their networks. It is also benefitted by facilities-based competition, as competitive pressure encourages participants to engage in those activities. Thus, dynamic efficiency is inextricably tied to the investment incentives faced by firms. Telecommunications infrastructure, as one author puts it, “is most economically provided in large, lumpy increments.” Traditional telephone and cable providers must expend significant resources to adopt new technology or expand their network, and facilities-based

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52 Economic policy must often balance these objectives. For example, the patent system trades off the short-run inefficiency of granting monopoly rights to patent holders for the long-run welfare-increasing effects of incentivizing research and development by entrepreneurs.

entrants must incur large costs before they can sell any services.\footnote{In the discussion that follows, much of the literature focuses on the incentives to invest in telecommunications networks, as opposed to cable or broadband networks. We recognize there are significant differences in how those two business models are built out and maintained; however, the literature in the telecommunications industry is extensive and provides a useful comparison.} Therefore, long-run efficiency is heavily dependent on the incentives faced when making those investment decisions.\footnote{See, \textit{e.g.}, Hausman, J.A. (1999). The effect of sunk costs in telecommunications regulation. In J.J. Alleman and EM. Noam (eds.) \textit{The New Investment Theory of Real Options and its Implication for Telecommunications Economics}, Springer, 191-204.}

49. Regulators face a trade-off between static efficiency and dynamic efficiency. This trade-off was highlighted by the Competition Bureau in its recent Broadband industry study: if the regulator sets rates too low, then facilities-based competitors are less likely to invest, whereas if the rates are set too high, then competitors (resellers) will not be able to discipline pricing in the market.\footnote{Delivering Choice: A Study of Competition in Canada’s Broadband Industry, Competition Bureau, August 7, 2019, p. 48.}

50. The usual economic argument for mandated access regulation is the “stepping stone” or “ladder theory of investment.”\footnote{The “ladder theory of investment” should not be confused with the “ladder of investment”, which refers to the different stages of investment over the life cycle of a firm or an industry, with each additional stage building on top of the progress from the previous stages.} The hypothesis is that as entrants gained market share they would naturally migrate toward facilities-based entry.\footnote{Cave, V. and Vogelsang, I. (2003). How access pricing and entry interact. \textit{Telecommunications Policy}, 27(10-11), 717-728; Cave. M. (2006). Encouraging infrastructure competition via the ladder of investment. \textit{Telecommunications Policy}, 30(3-4), 223-237.}

cheaper to continue leasing infrastructure instead of building new infrastructure.\textsuperscript{60} Again, this creates a tendency towards suboptimal levels of investment and thus dynamic inefficiency.

Consequently, when considering investing to upgrade their infrastructure, if market participants expect to face regulated pricing based on their long-run incremental cost that will not allow them to recover their forward-looking sunk costs, they will not have the incentive to make the investments. This leads to suboptimal levels of investment, and thus dynamic inefficiency in the long run.\textsuperscript{61} The same can be true for regulated incremental-cost based pricing because such pricing rules are based on current costs that are incurred with respect to that element of infrastructure or service, rather than the cost that was actually incurred by the providing carrier,\textsuperscript{62} and when the regulated price does not account for the risks inherent in the sunk investments.\textsuperscript{63}

B. Competition Versus Regulation in Achieving Market Efficiency

The economics literature has generally shown that when there are market failures competition is preferable to regulation in achieving efficient outcomes.\textsuperscript{64} Studies demonstrate that regulation (a) increases costs by reducing firms’ incentives to pursue more


efficient operations, (b) impedes the efficient allocation of goods and services, and (c) often slows innovation.65 Consequently, policies that mitigate market failures tend to be more successful with fewer negative side-effects than policies that accept the market failures and directly regulate market outcomes.

54. The modern regulatory approach to telecommunications in Canada and the U.S. has grown with the understanding that large, traditional wireline providers might, at times, possess market power. However, economic theory suggests that, ideally, as new facilities-based competitors enter the market and substitutable technologies develop, regulation would be supplanted by competition.66 Likewise, experience suggests that regulation can have a significant impact on the investment behavior of regulated firms.67

55. The CRTC, as well, has acknowledged that the promotion of such facilities-based competition remains a central goal of access regulation.68 Mandated access price regulation is one way to introduce competition by forcing traditional wireline service providers to share their infrastructure with resellers, but there is a significant risk that such regulation undermines the dynamics of new entry in these growing markets.

56. There is an extensive literature analyzing the 1996 US Telecommunications Act that discusses the interplay of unbundling, mandated access, and wholesale pricing in promoting

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or hindering competition in the telecommunications market.\textsuperscript{69} One important conclusion from this literature is the importance of wholesale prices and the disincentive that lower prices create for investment.\textsuperscript{70}

**C. Investment Incentives and the Economics of Regulation**

57. In order to obtain the efficient outcomes ultimately provided by facilities-based competition and the adoption of new technologies, a regulatory regime must carefully consider the incentives for investment faced by participants.

58. Traditional facilities-based providers often make large, irreversible investments in infrastructure. The complexity of the investment decision gives rise to a considerable diversity of approaches in modeling this behavior.\textsuperscript{71} For example, some economists have found that by increasing demand, some degree of access-based pricing may encourage investment, but such results require that the access rates be high enough (perhaps unregulated) to allow the facilities-based competitors to capture a sufficient portion of the ensuing profits to compensate them for their investment.\textsuperscript{72}


There is broad consensus that over-broad price regulation can diminish incentives for long-term investment in infrastructure. Additionally, regulation can also be detrimental to innovation, especially in a dynamic digital industry. The literature also demonstrates the numerous challenges of regulating prices in a manner that avoids this disincentive effect on investment.

1. Diminished Incentives for Both Incumbents and Entrants

Modelling by Pindyck (2007) has shown that, by making the network investments of traditional telephone and cable providers available to competitors at rates that did not fully compensate for the opportunity cost of investment, further investment by telephone and cable providers in those networks is deterred. Conversely, in addition to covering current operating costs, “an efficient level of investment requires that the returns to that investment are anticipated to include a payback of sunk costs.”

The literature has also emphasized the critical role of the allocation of risk between facilities-based providers and resellers. An asymmetric allocation of risks discourages traditional telephone and cable providers from sunk investment in infrastructure, tilting the balance in favour of resellers. A broad expansion of resale regulation risks discouraging investment by traditional telephone and cable providers if, for example, it places resellers in a comparable...

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75 Pindyck (2007) concludes that “[i]f a policy deprives owners of returns from capital already sunk, this alters the perspective of forward-looking investors, who observe a policy change that influences the levels of risk and reward they anticipate in future periods. Investors’ estimates of both profits and risk shift in response. In short, a rule depriving investors of the ability to recoup sunk costs becomes part of the forward-looking analysis for capital not yet sunk.” [Pindyck, R.S. (2007). Mandatory unbundling and irreversible investment in telecoms networks. Review of Network Economics, 6(3), 274-298 at 282.]


position to traditional facilities-based service providers but provides no mechanism for redistributing risk from the incumbent to the reseller. Such regulation encourages free-riding, and ultimately leads to less competition and lower economic efficiency.

2. Empirical Evidence of Diminished Investment Incentives

Numerous empirical studies have assessed the effects of mandated resale regulation on investment incentives. Generally, these studies find that mandated resale regulation discourages infrastructure investment by traditional facilities-based service providers and has not led entrants to invest in their own facilities. For example, a 2012 empirical study by Grajek and Röller finds that resale regulation has had a negative effect on “both total industry and individual carrier investment. Thus, promoting market entry by means of regulated access undermines incentives to invest in facilities-based competition.”

Further, both professors Cave and Vogelsang, initial proponents of the ladder theory of investment, have since acknowledged the practical limitations of theory. In a survey of the performance of mandated access policy in Europe, Cave (2014) stated “[i]t is clear that entrants faced with an alternative to investing in access infrastructures will normally adopt it.” And, in a survey of telecommunication policy, Vogelsang (2012) concluded that “[b]oth the more theoretical and the empirical literature suggest that the ladder-of-investment hypothesis has only limited applicability. […] [T]he approach shows little suitability for

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Cave (2014) continues: “Where the alternative bitstream or virtual access product is denied or restricted, the evidence suggests that competitors will invest. […] There is good evidence that benefits accrue to broadband customers from full end-to-end competition between a telecommunications operator and a cable company. Access-based competition seems to confer fewer benefits.”
achieving full infrastructure competition in classical essential facilities settings and in cases where infrastructure competition is intermodal.”

There are several empirical studies that examine the relationship between mandated resale regulation and investment incentives. Grajek and Röller (2009) constructs an empirical model to investigate this relationship. They base their econometric model on a panel of over 70 operators in 20 European countries over 10 years. They find that such regulation has a negative impact on the incumbents and new entrants, and negatively affects investment by incumbents and individual entrants. They find that their model predicts that the average change in the regulatory regime in 15 EU countries between 1997 and 2002 reduced the incumbents’ current infrastructure stock by approximately 49 percent and long-term investment by as much as 72 percent.

A similar result is found by Christopher Yoo (2014) in his comparative study of the US and European regulatory model. He finds that the European model, where it is cheaper to buy services from an incumbent provider, discourages investment. He finds that the effect of the European-style mandated access implied that the per-household investment was less than half of that in the US. Wallsten and Hausladen (2009) also find a significant negative correlation between unbundling and investment in Europe. They find that greater unbundling leads to fewer fiber broadband connections. Findings by Thelle and Basalisco (2013) support the above results. They find that the European style service-based competition with mandated access for new entrants to unbundled local access loops deterred

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fixed telecom incumbents from investing heavily in next generation technology.\textsuperscript{88} They also point to the fact that 2011 OECD estimates show that the US per capita investment in telecommunications is 50\% higher than in Europe.\textsuperscript{89} A recent study by Cave, Genakos and Valletti (2019) points to the econometric estimation of the impact of different access regulations across Europe and highlights that a “number of studies show that more intrusive regulation of fiber assets deters fib[re] investment.”\textsuperscript{90} Further, the EU Commission and Parliament recently recognized the deterrent effect of resale regulation on investment in high speed networks, and suggested “diminishing the intensity of regulation on dominant operators.”\textsuperscript{91}

Mandated unbundling resale regulations are often seen as a tool to promote entry and competition into telecom markets.\textsuperscript{92} Facilities-based entry in the telecommunications market is subject to significant network economies, high sunk costs, and first-mover

\begin{footnotesize}
\begin{enumerate}
\item See, for example, the European Parliament’s briefing note on the European Electronic Communications Code, which states that “[t]he EU regulatory framework has traditionally favoured an access-based competition model in line with the ladder of investments theory that assumes that new operators need access to the dominant operator’s networks before they can incrementally invest in rolling out their own network infrastructure. Following this approach, the framework obliges operators with significant market power (i.e. the dominant operators) to meet stringent access obligations under the control of national regulatory authorities (NRAs). However, in the current review of the EU telecoms rules, the Commission’s assumption is that while the key principles of EU regulation remain valid, significant adjustments are necessary to provide incentives for operators to make economically viable investments in high-capacity networks. In its impact assessment, the Commission stresses that access regulation can have a deterrent effect on investment, and proposes a set of measures aiming at fostering infrastructure competition and diminishing the intensity of regulation on dominant operators when they participate into a co-investment to deploy very high capacity networks.” This briefing note also recognized the diverging views “as to what extent infrastructure-based competition and co-investment agreements can actually foster investment and deployment of new networks.” [European Parliamentary Research Service, “EU electronic communications code and co-investment Taking stock of the policy discussion”, February 2018, available at http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614693/ EPRS_BRI(2018)614693_EN.pdf.]
\end{enumerate}
\end{footnotesize}
advantages. Unbundling and mandatory resale can lower these entry barriers and foster competition and new investment. However, as Bourreau and Doğan (2004) find, the effects of unbundling on investment is more complex. If the incumbent sets too low a price, it can delay the entrant’s investment and technology adoption. In the current context, if the price of the mandated access is set to low, then it could potentially have a detrimental impact, not just on the incumbent investment, but also on the entrant’s investment.

D. Understanding the Disincentive Effect: The Option Value of Investments in Infrastructure

The “real option” framework concisely articulates the investment decision of a facilities-based provider and provides a mechanism for understanding why cost-based access pricing is actually more likely to lead to underinvestment. When a firm decides to make an investment in infrastructure that largely is sunk (meaning that it cannot be easily recovered), it foregoes the opportunity to invest at a later point when it would have more information – in effect, it is exercising an option akin to a call option in finance. This lost option value is important in assessing the investment decision of facilities-based broadband providers and to understanding the impact of mandatory resale regulations.

The literature demonstrates that failing to account for the option value of investments results in resale pricing below the dynamically efficient level. While the facilities-based provider

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“pays” the opportunity cost, the reseller gains the ability to access the market and pays no premium for retaining its option to invest (or disinvest by ceasing to rent the infrastructure) at a later date. Put differently, the network provider is undercompensated for its investment, while the reseller is given additional incentive to lease infrastructure rather than pursue facilities-based entry. The end result is decreased investment in infrastructure by all participants.

69. The large, upfront expenditure that telecommunications infrastructure requires is not, by itself, sufficient to justify attributing an option value to such investment. The investment must also be (a) largely irreversible, and (b) made under significant uncertainty. Obviously, if the investment were easily reversible (or has a large scrap value), a firm could simply recover its investment and change course whenever it sees fit. Likewise, if there were no uncertainty, the option would be worthless, since a firm would not gain any value by waiting to invest later with more information.

70. Investment in wireline broadband infrastructure has the feature of being both irreversible and made under uncertainty. For certain types of infrastructure, the equipment is so specialized as to render it effectively irreversible. If the equipment can only be sold to other operators in the same industry, then the price will co-move with the state of the industry, such that price will be depressed when a firm would be most likely to want to sell its equipment.

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97 Pindyck (2007) provides compelling arguments for why this is the case. While he was writing about the wireline telephone industry at the time, his arguments apply equally, and, as we discuss below, likely even more effectively to wireline broadband in Canada today. [Pindyck, R.S. (2007). Mandatory unbundling and irreversible investment in telecoms networks. Review of Network Economics, 6(3), 274-298.]

E. Impact of Uniform Pricing for Wholesale Access Across Speeds

71. Regulating the wholesale prices of access to network infrastructure can distort both static and dynamic efficiency. Prices should be such that they do not distort investments in infrastructure and also provide incentives for quality enhancement. If the regulated price is above the build cost, then it encourages uneconomic overinvestment by the incumbent and under-entry by resellers, and the opposite is true if the prices are below the build cost. If the regulated price is below the build cost, then this may lead to greater than efficient entry and underinvestment.\(^9\) However, it is not just the overall price that is at issue here. Considerations about the type regulated prices, uniform versus differentiated, long-run incremental cost-based pricing, and efficiency distortions that may come with it need to be explored.

72. When there are different qualities of a single type of service, for example, different speeds, the regulator has a choice of setting a uniform price or one that differentiates between the quality of goods. Classic economic theory explains that a differentiated pricing structure will achieve efficiency in this context and maximize the static output, while a uniform pricing leads to deadweight loss and inefficiency.\(^{10}\) Several seminal papers by Willig (1979), Baumol and Sidak (1995) and Ordover and Willig (1999) conclude that an efficient pricing rule should be cost-based and depend on both the direct cost of providing access plus the opportunity cost to the supplier of doing so.\(^{11}\) Applied to the current context, this argues against the implementation of uniform pricing across speed tiers, as both the direct cost and opportunity cost of providing broadband service at different speed tiers are non-uniform.

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The experience of various countries that have implemented uniform pricing for mandatory access has supported this theoretical finding.

73. In 2019, Australia implemented uniform broadband access pricing with mandatory access. Sorenson and Medina (2016) investigate the impact of this regulatory policy on retail competition, product quality and consumer prices of broadband services. They find that these policies have not only failed to encourage competition and provide better quality service at lower prices, but that they have also “stagnated fixed broadband adoption”.

F. Impact of Regulatory Risk on Investment

74. The economics literature has highlighted the investment disincentives that can be created by the possibility that regulators will deviate ex post from policies they committed to ex ante. If a company perceives that there is a risk that a regulator will opportunistically change its stated pricing policies after the company has commercialized its product, the company may delay or even forgo sinking its capital into the investment supporting this product. In sum, economic logic indicates abrupt deviations from these established guidelines may lead to regulatory uncertainty, the impact of which can be to discourage investment by companies in their networks.

75. For example, in the most extreme case where a regulator is unable to commit to any policy, Blackmon and Zeckhauser (1992) show that the regulator will find it optimal to change its policy (regardless of whatever promises it made in the past) to fund only those inputs which

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have not yet been sunk, but it will not pay for sunk inputs such as existing physical capital.106 Anticipating this behavior from the regulator, firms will not undertake any investment in the first place, as they will (rationally) expect to not be able to recover any sunk costs in the event they invested in their networks. To the extent that the regulator can (imperfectly) commit to keep prices steady for some period of time, firms will undertake investments, but they will favour reversible investment over irreversible investment (since capital will have a salvage value), and will favour a series of sequential investments over a single, larger investment if doing so allows them to delay some investment until after the next policy hearing. Even in this latter case, the resulting distortions of regulatory opportunism can be severe, since firms will not fully exploit economies of scale in investment.

76. By contrast, efficient investment outcomes result if the regulator can commit to expected cost recovery.107 Such commitment can also be imposed by the government imposing restrictions on the regulator from changing its regulatory framework. These can take the form of, for example, a requirement that all assets that are used-and-useful be included in the rate base and enable equilibria that exclude opportunistic behavior to exist in a wider range of economic environments.


Appendix B – Author Biographies

Agustin J. Ros

Dr. Agustin J. Ros is a Principal of The Brattle Group with expertise in regulation and competition issues in telecommunications and energy. In telecommunications he has more than 25 year of experience working on fixed and mobile regulatory, competition and policy issues in the U.S., Canada and Latin America. His telecommunications consulting experience involves fixed and mobile cost of service ratemaking including fixed and mobile termination rates, cost of capital estimation, damages, performance-based regulation, spectrum allocation and valuation, and econometric modelling. He has provided expert testimony, reports and affidavits before regulatory and competition agencies throughout the world including the Federal Communications Commission, the Canadian Radio-television and Telecommunications Commission, the Federal Energy Regulatory Commission, the Mexican Institute of Telecommunications, the Mexican Competition Commission and the Colombian Communications Regulatory Commission.

Dr. Ros has worked as an economist at the Illinois Commerce Commission, the Federal Communications Commission and the Mexican Competition Commission. At the Illinois Commerce Commission he was Executive Assistant to the Chairman advising the Chairman on all economic matters before the Commission and was selected to participate in the Federal-State partnership in Telecommunications at the Federal Communications Commission in 1996 where he worked in the Common Carrier Bureau advising the Bureau and worked on the economic rules implementing the local competition provisions of the Telecommunications Act of 1996 including the economic and policy rules on interconnection, resale and unbundling network elements. In 2008-2010 he worked for the OECD and the Mexican Competition Commission co-leading a team of competition experts assessing competition in a number of key sectors of the Mexican economy including, aviation, banking, inter-city bus transport, energy, pharmaceutical, supermarkets, and telecommunications. The team made a series of policy recommendations to increase competition some of which were enacted into law.

Dr. Ros is an Adjunct Professor at the International Business School at Brandeis University where he teaches a course on global antitrust and economic regulation. His research includes examining competition issues in fixed and mobile telecommunications and retail electricity using econometric analysis and has published in academic, peer-reviewed journals such as The Energy Journal,
Renée M. Duplantis

Dr. Renée Duplantis is a Principal of The Brattle Group with more than 15 years of experience involving complex competition matters in Canada, the United States and Europe. She specializes in the empirical analysis of antitrust issues with a primary focus on quantifying the competitive effects of mergers. She has also been involved in several competition matters involving allegations of abuse of dominance, exclusionary conduct, monopolization, collusion and price-fixing. She has participated in several telecommunications regulatory proceedings in Canada, including co-authoring the report An Analysis of Broadband Services in Canada; Competition, Regulation, and Investment, prepared for Shaw Communications Inc. in the Competition Bureau’s Market Study: Competition in Broadband Services, and testifying on behalf of the Competition Bureau in the Let’s Talk TV Hearing in front of the Canadian Radio-television and Telecommunications Commission.

Prior to joining Brattle, Dr. Duplantis spent almost 5 years at the Canadian Competition Bureau in various positions, including as the T.D. MacDonald Chair in Industrial Economics (Chief Economist). During this time, she provided the Commissioner of Competition with advice on economic matters related to competition policy and participated in the economic analysis of numerous high-profile investigations under the Competition Act.

Dr. Duplantis is recognized as a leading competition economist by Who’s Who Legal, serves as an active NGA for the Competition Bureau in the International Competition Network, is a member of the CD Howe Competition Policy Council, is on the editorial board of the Canadian Competition Law Review, and is a frequent speaker at competition conferences globally.

Dimitri Dimitropoulos

Dr. Dimitropoulos is an Associate in the Brattle Group’s Litigation and Finance practice group. He conducts research and analysis in the economics of anticompetitive practices, intellectual property, and commercial damages.

In the area of antitrust, Dr. Dimitropoulos has analyzed theories of harm and competitive effects in cases involving mergers in concentrated industries, and has evaluated theories of harm and
calculated damages in cases involving alleged monopolization and exclusionary conduct. In the area of intellectual property, he has analyzed the value of several patents, evaluated the harms and assessed damages arising from patent infringement, assessed the commercial success of patented products as a consideration for determining the obviousness of a patent, and analyzed reasonable royalties in patent licensing and patent infringement cases.

Dr. Dimitropoulos has contributed to various regulatory reports in the area of telecommunications, including before the CRTC and the Competition Bureau.

Dr. Dimitropoulos received his Ph.D. in economics from the University of Toronto with a concentration in Industrial Organization, and his Specialized Honours Bachelor of Arts in economics from York University in Toronto, Canada.

**Ian Cass**

Mr. Ian Cass is an Associate in The Brattle Group’s Litigation and Finance practice group. He specializes in antitrust and competition, particularly supporting clients and experts in the analysis of mergers and acquisitions and other reviewable practices.

Prior to joining The Brattle Group in 2016, Mr. Cass worked in merger enforcement at the Canadian Competition Bureau for five years, where he led teams conducting complex merger reviews under the Competition Act in various industries, including pharmaceuticals, retail and telecommunications. He was also involved in the Bureau’s policy work with the OECD and the International Competition Network.

At Brattle, Mr. Cass has contributed to various regulatory reports in the area of telecommunications, including before the CRTC and the Competition Bureau.

He received an M.A. in economics from Queen’s University.
APPENDIX B

to the Petition to the Governor in Council
pursuant to Section 12 of the *Telecommunications Act*
Impact Statement

Introductory comments

1. Eastlink provides the information below to explain the significant impact to Eastlink of both the interim TPIA rates that have been imposed on our company since 2016, and the final TPIA rates that the CRTC ordered us to charge Resellers on August 15, 2019. Indeed, the final rates represent such a shocking and significant reduction to the cost studies we filed, that if implemented they will most certainly have a serious impact on Eastlink’s decisions regarding the operation of and investment into our business going forward.

2. The rates will not only impede our broadband investments and operations, but they will also impact our investment decisions to take on similar risks to continue our efforts in extending our wireless networks to more of our serving areas in Canada, all of which are smaller communities, towns and cities outside of Canada’s largest urban centers, where Eastlink is a fourth regional competitor to the three national incumbent wireless operators in our regions.

3. As a result of the CRTC’s decision, Eastlink has already announced reductions to our network investment plans for the fiscal year by over $50 Million, and since that announcement, we have had to make further reductions. This is a significant impact when one considers Eastlink’s size. These reductions directly impact our plans to increase internet capacity, update internet transport networks and continue our efforts of enhancing our internet redundancy. In addition, we have had to make the difficult decision to withdraw from specific government funding initiatives we were awarded that would have resulted in millions of additional investments into small communities this year.
4. Eastlink is only a fraction of the size of the other companies who are also required to provide wholesale internet access. To provide context for how harmful the CRTC’s interim rates have been, and the impact that the final rates will have on our business, it is important to first provide some background about our company. Below is the story of how we have connected rural and small-town Canada in seven provinces, building some of the best networks in the country. We describe how our decisions are made and the impacts that the below cost interim rates are having as well as the damage to our company, and small communities across the country who rely on our services, that the final rates will have.

**About Eastlink**

5. Eastlink got our start as a very small cable operator in rural Nova Scotia in the 1970s. Our expansion to provide services beyond the basic cable services to provide internet and local telephone over our network was the result of major investments and risk-taking that many others were unwilling to take at the time. Our story is not one of incumbency, but rather, one of a small, rural provider who took on the risks and challenges of bringing facilities-based competition to Canadians in telecommunications markets. In our view, Eastlink is the success story of what true competition means.

6. Eastlink is a small privately held, family owned company who acquired our first cable system in 1970, in Amherst, NS. Through a series of unrelated acquisitions over 3 decades we purchased hundreds of non-connected smaller systems throughout Prince Edward Island and Nova Scotia (with later acquisitions to expand to other provinces so that we now also provide our services in 7 provinces). Over the years we invested significantly to interconnect systems and to upgrade the facilities with fibre and hybrid fibre/coaxial cable. In fact, when we decided to offer internet and telephone service, the investments needed to build the infrastructure did not simply require incremental investment to improve our cable plant – instead, the upgrades required rebuilding most of our network as well as interconnecting many of our systems with fibre
to improve quality and service so we could interconnect and serve rural communities as efficiently as possible.

7. Eastlink continued to take on the risk of building our network and we did so at a time when the regulatory environment recognized the importance of supporting and encouraging facilities-based investment. As a privately held, family-owned business, Eastlink invested 100% of its profits back into the business, a practice we still follow today. As a result, across many parts of the country including in small, rural communities, like Kapuskasing, Kirkland Lake, Cochrane and Opasatika, Ontario and Deep Bight, Newfoundland, residents have access to some of the highest internet speeds available at or above those available to residents living in some of the larger urban centers in Canada. Eastlink offers TV service (100s of HD channels, with VOD and streaming), high speed internet (at speeds of up to 1Gig), local wireline telephone and we have been investing heavily into building and expanding our 100% LTE wireless network, with recent launches in Sudbury and Timmins, Ontario; Grand Prairie, Alberta; and Fredericton and St. John, New Brunswick. Eastlink’s wireless service already covers all of Nova Scotia and Prince Edward Island. Investments into our wireless network are extensive and also require a disciplined approach to business planning.

8. As a result of Eastlink’s pro-competition and risk-taking business philosophy we have made an important and positive contribution in building our state-of-the-art broadband networks into the smaller regions in Canada where consumers had previously only had low-speed DSL internet services, or the option of one service provider.

9. The largest urban centers Eastlink serves are Halifax, Nova Scotia and Sudbury, Ontario - areas with significantly smaller populations than the major urban centers served by our larger competitors¹. Otherwise, we generally serve very small, rural

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¹ For instance, an article in the October 2016 issue of Canadian Geographic noted that Halifax has a population density of 71 people/km², while Toronto and Vancouver have population densities of 4,149 people/km² and 5,249 people/km², respectively. (Kylie, Aaron, “City Views, Charting the municipal boundaries of Canada’s major cities”, Canadian Geographic, October 2016, Pages 57-64. Print.)
communities. Eastlink has been included in the category of Canada’s large internet providers by our regulator, but in reality, we have only about 335,000 residential internet subscribers across over 21,000 kilometers of fibre network we built across 7 provinces. The extent of our network and geography for such few subscribers illustrates how different Eastlink is compared to the larger broadband providers.

10. Eastlink’s focus has been to invest in broadband networks across more rural and remote areas. For instance:

- In Newfoundland and Labrador we do not provide residential internet service in St. Johns. We serve the smaller communities throughout rural Newfoundland - including from Bay Roberts to Marystown, Clarenville, Burgeo, Cow Head, Port aux Chois, Baie Vert, Joe Batt’s arm, and to the more remote areas such as Happy Valley Goose Bay and Fogo Island (a community so remote that we must fly into the area in order to maintain our facilities there);

- Throughout all of Nova Scotia and Prince Edward Island.

- In New Brunswick, we offer services in Sackville and Port Elgin (although we built our wireless network throughout additional areas).

- In Ontario our focus is on smaller communities in the Southwestern region, such as Bluewater, Clinton, Goderich, Kincardine to Southeastern areas of Aylmer, Simcoe county and towns such as Bourget, Morrisburg, Alexandria and into the Northern communities of Sudbury, Timmins, Cochrane, Kapuskasing and Moonbeam. Our largest area in the province is Sudbury which (together with Halifax in NS) represent the largest serving areas throughout all of our network.

- In Alberta we provide services to serving areas such as Whitecourt, Slave Lake, Cold Lake, Grand Prairie, Peace River.

- In British Columbia we serve numerous areas including Oliver, Osoyoos, Pender Harbour, and Sechelt and Gibsons.

11. We pride ourselves on being one of the few smaller communications companies whose focus is on small-town Canada. Other communication companies in Canada are either focused on more limited geographic boundaries, or they have the advantage of serving densely populated urban centers, which helps them defray the costs and risks of expansion into rural areas. However, despite our small size and geographic disparity,
Eastlink has been able to expand the provision of our exceptional services to hundreds of smaller communities.

12. Eastlink’s investments have not been without risk. The distance to reach rural communities with fibre transport builds, and hybrid fiber coaxial technology to the home, combined with very small population density, and increasing support structures access costs, means that a decision to build into these areas must be carefully considered. It requires an assessment of the costs to build, the ability to sell services to a meaningful penetration of households, the ability to sell more than one service (TV, phone and internet) and the ability to do so at a rate that will provide a reasonable return on investment. Building fibre to these communities to provide service, for example, to a few homes per 5km stretch means that the payback on investment requires a different business case than those providers who can sell services to hundreds of thousands of customers within a relatively small boundary.

13. Given the significant and ongoing costs of maintaining our networks, and the low population density, increases to our costs via new regulatory requirements, operational cost increases such as extreme and unsubstantiated pole rate increases, or losses of retail revenue through the mandated wholesale internet access regime (which results in recovering wholesale rates from Resellers at currently below cost rates) can seriously impact operations, to the tune of many millions of dollars per year.

14. Investments don’t stop once the facility is built. Unlike the traditional phone networks, for which a one-time build could sustain all telephone usage indefinitely (a call is a call, and usage does not put a strain on the network), internet networks are characterized by substantial and ongoing investment requirements. Internet usage by Canadians is growing exponentially (upwards of 50%) year over year, so that we must continue investing in our networks to ensure that we provide sufficient capacity to meet this demand.
15. It is erroneous to assume that once a facility is built, a service provider is not likely to abandon it or stop offering service. While Eastlink prides ourselves in our willingness to assume risk and invest in our business, we still need to recover our investments within a reasonable period of time. The inability to operate our business based on sound economic decisions will not only impede our ability to improve services, sustain them and expand them, but it will also impact future costs of service – none of which is good for consumers.

16. Eastlink will do everything we can reasonably do to improve our services in an economic way. Yet, we have also experienced situations where the cost to provide our service on an ongoing basis, even in cases where the facility is in place, becomes unjustifiable. In light of the below-cost wholesale rates, Eastlink has had to make significant changes to investment plans that have unfortunately denied consumers in some smaller communities access to even basic high speed internet service, as described below.

**Importance of facilities-based investment**

17. Facilities-based investment is critical to a sustainable Canadian broadband system. Notwithstanding Canada’s expansive geography, our Canadian telecommunication industry has successfully invested to connect over 99% of Canadians with access to internet service, and the Federal Government is seeking to increase the penetration of the number of Canadians who have access to basic internet service, now defined by the CRTC as 50 Mbps.

18. Indeed, facilities-based investment has been one of the cornerstones of telecommunications policy objectives as enunciated in numerous Commission proceedings for years. Eastlink was able to take on the significant risks of being the first cable company in Canada to upgrade our facilities to provide local telephone service over our cable network in competition with the well-entrenched incumbent telephone companies, with support of the government policies supporting facilities-
based investment. Similar pro-investment government policies have enabled Eastlink to successfully acquire the costly spectrum required to build our advanced LTE wireless networks and VoLTE wireless technology into rural areas. It is critical that we be able to rely on those pro-competition policies aimed at facilities-based development in order to expand and improve our networks.

The impact of unreasonably low TPIA rates

19. As noted above, every factor must be considered when assessing whether to invest. Eastlink provides services to thousands of communities across Canada, and we offer four telecom services today (noting that for our fourth service, mobile phone, we continue to expand our network into more regions in Canada where we have spectrum). If the costs to provide certain services are prohibitive we will reallocate the investment monies into areas that allow us to receive a reasonable return.

20. With the interim wholesale rates imposed on Eastlink, we had to make decisions to reallocate our investment such that smaller communities did not receive the benefit of internet upgrades that we would have previously planned. The interim rates were already beginning to have an impact on the networks available to rural Canadians by the time the final rate decision was issued.

21. The impact of the CRTC’s final wholesale rates means the issue is no longer about reallocation of investment to more profitable areas of the business; rather, the effect is a material reduction to the available capital to invest. The reductions we have had to make in Eastlink’s fiscal year 2020 capital budget as a result of the decision is significant as it means that over $50 Million will not be available for any type of investment, let alone reallocation to other areas. Eastlink is able to upgrade certain very small communities with as little as a few hundred thousand dollars in some cases (noting that in other cases it could be in the millions), so the impact of our reduced capital investments will be substantial to our communities.
22. Unlike the public companies who must answer to their shareholders, Eastlink is a privately held business and our owner has chosen to invest 100% of profits back into the business. Every dollar we make has an impact on what we can do to expand and sustain our business. Yet, for every dollar we spend, it is our owner who takes on that risk, which is why the regulatory environment and policies that show support for the risks of taking on such investments are so important.

23. Eastlink filed our proposed rates for wholesale access in September 2016 based on the CRTC-established costing model. We included cost inputs that were applicable to our business based on our specific experience building broadband networks in more rural, geographically dispersed areas. The table below shows the cost-based rates Eastlink proposed to the Commission in our Tariff Notice\(^2\), the interim rates established by the Commission in November 2016 and the final rates established by the Commission in August 2019. While our cost studies also included lower speeds than those listed, the table below begins with the applicable speeds Eastlink provides in the market and which we provide to Resellers:

<table>
<thead>
<tr>
<th>Speed Band</th>
<th>Cost Study Rates (TN37A)</th>
<th>Interim Rates</th>
<th>Change (TN37A)</th>
<th>Final Rates</th>
<th>Change from Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 to 100 Mbps</td>
<td>$44.24</td>
<td>$25.47</td>
<td>-42%</td>
<td>$16.72</td>
<td>-62%</td>
</tr>
<tr>
<td>101 to 500 Mbps</td>
<td>$45.94</td>
<td>$31.32</td>
<td>-32%</td>
<td>$16.72</td>
<td>-64%</td>
</tr>
<tr>
<td>151 to 300 Mbps</td>
<td>$49.91</td>
<td>$34.14</td>
<td>-32%</td>
<td>$16.72</td>
<td>-66%</td>
</tr>
<tr>
<td>301 to 400 Mbps</td>
<td>$62.68</td>
<td>$44.09</td>
<td>-30%</td>
<td>$16.72</td>
<td>-73%</td>
</tr>
<tr>
<td>401 to 940 Mbps</td>
<td>$78.71</td>
<td>$55.51</td>
<td>-29%</td>
<td>$16.72</td>
<td>-79%</td>
</tr>
<tr>
<td>Capacity</td>
<td>$661.61</td>
<td>$353.35</td>
<td>-47%</td>
<td>$212.10</td>
<td>-68%</td>
</tr>
</tbody>
</table>

The interim rates are already impacting service quality

24. When the CRTC issued the decision setting Eastlink’s interim rates on November 10, 2019, Eastlink filed an application to Review and Vary that Decision in January

\(^2\) Please note, Eastlink filed our initial proposed rates in September 2016 under TN 37; we updated the proposed rates in a subsequent updated in TN37A (which was filed in March 2017). For the purpose of accurately showing the difference between our proposed rates and the Interim Rates, this table compares the TN37A rates with the Interim Rates.
2017, citing our significant concerns regarding the impact those rates would have on our business and investments. Those concerns have proven to have already had negative impacts, evident in terms of suspending certain previously announced investment plans to upgrade internet service to some communities, and also in terms of the increase in the number Resellers who began to seek services from Eastlink at wholesale rates that were upwards of 42% below our costs for access and almost 50% below our capacity costs.

25. In some small markets where we had upgraded communities to provide some of our fastest internet speeds, we experienced losses of customers to Resellers that are having a significant impact. In some communities our return on investments, even at the interim rates, was becoming impaired to the point where we may have to consider whether we can continue offering service. For instance,

- In 2016 we suspended investment plans to upgrade approximately 5 communities and surrounding areas in one of our serving provinces, which would have provided millions of dollars in capital upgrades. It was with great regret we had to do this, as it would have provided at least 1,400 residents in a number of these communities could have had access to at least 400 Mbps internet speeds where today they have speeds up to 5 Mbps. The investment costs would have been significant, noting the communities were at least 85 km from our nearest point of presence, but we were willing to make these investments (without any subsidies), prior to the interim wholesale rate decision. The impact of having to make our newly upgraded network available to Resellers at below cost rates as soon as the upgrades were complete meant the business case to invest could no longer be justified. Eastlink had been anxiously awaiting the final rates decision with the hope that with rates that more accurately reflect our costs we could put these communities back on our list for upgrades.

- The case to upgrade a community is shaken when one considers the impact of a mandated wholesale regime at the rates provided in the interim decision. Even
with the interim rates, a Reseller would be entitled to start selling the TPIA service to residents in these communities using Eastlink’s newly upgraded network, at a much lower retail price than the revenue we would require to recover a reasonable return on our investment. Simply put, the economics begin to look less attractive for any upgrade.

- Under the CRTC imposed interim rates we have been losing substantial customers to Resellers. For instance as at end of August 2019 we provides service to one community where Eastlink has 51 customers and the Reseller has over 101 customers; in another we have 59 customers and the Reseller has 49; in another we have 1,439 customers and the Reseller has 1,204. These are tiny communities where Eastlink had made investments to upgrade our internet service. They illustrate the small populations available for us to sell service to and how justifying investments can be a challenge. There are other communities that are starting to show similar impacts from the interim rates. In these cases, as a result of Reseller growth, we have not yet achieved a return on the investments we have made. Eastlink does not charge our customers in these smaller communities’ rates above what we charge in our larger serving areas. We provide our customers with the same service at the same rates we charge in larger areas like Sudbury. As a company who comes from small town roots, our philosophy has been to take a longer return on investment to serve smaller towns. The wholesale regime and below cost rates have destroyed that model.

**The final rates will severely impair our business, network and services**

26. The interim rates have already had a significant impact on our business. The impact of the substantial growth of Reseller customers under the interim rates has been significant, noting that the Reseller end users we forecasted in our cost study as of March 2021 has already more than doubled by September 2019. Such explosive growth of Reseller end users is indicative of wholesale rates that are unreasonably low. If this pattern continues, Eastlink will need to take definitive steps to minimize the impact
on our revenue and return on investments through cost reductions. Innovation to bring interesting new service features or enhancements also becomes challenging in an environment where costs need to be reduced.

27. As we were only just beginning to see the serious impact of the interim rates on our business, the final rates came as a significant blow to Eastlink as we felt the interim rates were already erroneous and we had expected the final rates would result in a correction to the rates.

28. As noted in the table above, Eastlink’s proposed cost studies included rate increases at various service speed increases - from 100Mbps up to 1 Gig services our proposed monthly access costs were from $44 to $79. Yet, in its final decision the CRTC flattened out the access rate so that for all speeds – from 5Mbps service speed up to 1 Gigabit speeds, Eastlink is only permitted to charge our wholesale competitors a monthly access rate of $16.72. Eastlink cannot fathom how such a rate could be considered justifiable by any means. This, together with the significant reductions to the capacity rates will destroy our business. While this claim sounds extreme, it is important to consider what this means in practice.

29. Under the final rates, the Reseller will be able to purchase wholesale internet service from Eastlink and pay us $16.72 per month for each end customer to whom they sell service. To illustrate the absurdity of this rate, consider just one of the costs we must incur to provide our service. Eastlink pays telephone and hydro pole owners a monthly fee to attach our fibre to the pole. This results in millions of dollars every year in pole attachment fees alone. Recently, the pole attachment rates for access to certain hydro poles in Ontario increased to $43.63 per pole per year, which represents an almost double increase in payments to that company. Currently, the price to attach to a pole in Ontario is almost $4 per pole per month. In rural areas it is not uncommon to have to attach our fibre to multiple poles to serve one home. This would mean that to serve one customer, our pole attachment rates could be more than $8 per month.
30. Eastlink must keep our fibre attached to the poles and pay those fees every year. If a Reseller using our network sells service to the customer in this scenario, Eastlink is paying at least $8 per month just for the pole attachment fees and receiving $16.72 per month in access fees from the Reseller. Once you consider the increased penetration of Resellers’ subscribers on our network in various communities, it is very easy to see how flawed the wholesale rates are. Pole costs are just one of the many significant costs we incur to operate our network. Deducting the $8 of pole attachment fees (as per this example) from the $16.72 in access fees received from a Reseller leaves less than $9 for Eastlink to be compensated for the rest of our network costs such as fibre, installation, core network and operation costs. The business case becomes non-existent.

31. With a $16.72 monthly access rate for all speeds, any of our Reseller customers, none of whom make investment in their own facilities, are simply taking our service and marketing it as theirs and billing their customers. The primary business responsibilities, or costs outside the wholesale rate, for which the Resellers are responsible is marketing and billing their customers. As such, with absurdly low wholesale rates they will have a multitude of options to either simply benefit from higher profits on services that they are already selling in the market or to make other changes to how they offer and price their services. For example, the final rates mean they now have any number of options:

- They can choose to not change their retail rates in the market, or the speeds they offer and simply take the significantly higher profits on the retail rates they already provide in the market. The increase in profits to them decreases our cost recovery on our networks, and causes us to stop making a significant number of those planned investments.

- They could offer a higher speed service at extremely low retail rates. In Eastlink’s case, many of our Resellers are selling the 100 Mbps service to their customers. They could choose to keep offering that service at the current retail price but instead of paying our access costs of $44.24 for providing the service, they would
only have to pay $16.72, more than double the profit at that speed. Or, alternatively they could offer our 1 Gig service at retail rates only slightly above the 100 Mbps retail price and gain significant market share for that service. As they have no material increase to their costs to provide the higher speeds\(^3\), they will win more customers in the market and further increase their profits.

- **They could choose to sell the highest speed services to all customers at one flat low rate.** While the Resellers may claim this is not likely, there is no material impediment to them doing so. Selling the highest speeds (in our case the 1 Gig speed) to all customers at one rate that still gives them serious profits from the $16.72 access cost, would simplify their marketing efforts to one offer (one of the few costs they incur on their own), sell the more attractive flat-rate 1 Gig service and experience no material increase to their costs on the wholesale side in order to do so. While they may incur additional capacity costs, overall they would not be expected to increase in proportion to the higher speeds, or massive revenues they would make, and moreover they could choose to offer with some limitations on data if they wanted to. The impact of this would likely cause a significant exodus of our customers to the Resellers and the concomitant loss of return on our network investments. Indeed, selling these services at a loss means we will not have the funds to upgrade capacity and over time services will degrade. In a very short time, Eastlink could be faced with decisions to close some systems (we have closed systems in cases already where the business case simply could no longer justify the cost).

32. The scenarios above highlight that with the final rates, there is no doubt that facilities-based companies like Eastlink, who invest in networks will lose a significant number of subscribers to Resellers who do not build, and who will make immense and unjustifiable profits from their low-risk entry into the market. Any view that Resellers’ low pricing will bring competition is very short-sighted given the undoubted negative

\(^3\) While the Resellers do pay a capacity rate, generally the cost of capacity will not increase in proportion to the speed, given that many end customers will continue to use the services in the same way as they always had. For instance, a customer who generally uses internet today for social media, email, some video usage is not likely to change their consumption in any significant manner.
impact it will have in the near-term and long term on networks in Canada. Moreover, Eastlink is not able to react with comparable reduced retail pricing, since we will have already lost a significant portion of our customer base to Resellers. In a case where a large portion of our (Resellers) customers are paying us only $16.72 monthly access fees, it becomes impossible to justify competing with them by further reducing our own retail rates. Such a model would surely put a capital intensive company out of business is short order.

33. The retroactive aspect of the order cannot stand. The imposition by the CRTC of a retroactive payment to the Resellers for the 3-year interim period between 2016 and 2019 is also a serious concern to Eastlink. In the final rate determination, the CRTC ordered that we must pay Resellers for the retroactive rate difference for the period from the interim rate decision in 2016 to the August 15, 2019 decision. Given the significant reduction in the rates even from the interim rates, the retroactive impact of the decision to Eastlink is in the millions. In its 3-year plan, the CRTC announced its intention to review the wholesale wireline costing methodology. It is our understanding that this notice of consultation will be issued in the coming months. This plan, to our knowledge, was established well before the final rates were issued. The recognition that the wholesale costing regime needed review before the final rates were even established, further illustrates that the issuance of an extreme final rate decision should not also include a requirement for retroactive payment over the 3-year interim period. Aside from the debate about how any order impacting businesses in retail markets can appropriately be called “interim” when it runs for 3 years, the very fact that an entire costing review is already planned illustrates that there may be valid concerns with the existing regime. As such, if that alone does not raise doubt as to the existing methodology and final rates, at minimum the Commission should have reconsidered any decision that would impose retroactive payment over a 3-year period, noting the massive impact this would have on the carriers.
Asymmetrical application of the rules are completely unfair and inappropriate

34. If the final $16.72 access rate and the significantly reduced capacity rate imposed on Eastlink is not outrageous enough, we must also address the unjustifiable competitive inequity and blatant unfairness to the requirement that Eastlink provide wholesale access to Resellers at the $16.72 access rate, for up to our 1 Gigabit internet speed, when our largest competitor, indeed the largest communications company in Canada, has no current requirement to provide any access to its higher speed internet services in Atlantic Canada.

35. Eastlink has approximately 335,000 residential internet customers while Bell had 3.9 Million internet subscribers at the end of 2018. Below we address the serious competitive inequity of this situation to Eastlink who must provide below-cost wholesale access to our network to Resellers, thereby cannibalizing our customer base and limiting our returns on our fibre and hybrid fibre coaxial investments in our network, while Bell has no such requirement.

36. Currently Bell is benefitting from a regulatory holiday that will be years in duration by only having to offer its DSL based internet services at speeds of up to 7Mbps, since Bell’s higher speed services are offered on their fibre to the home (FTTH) network and the CRTC decisions do not mandate the provision of FTTH wholesale access until a process is initiated after the implementation of disaggregated wholesale access rates in Ontario and Quebec are complete (to which final rate decisions have not yet issued).

37. Eastlink is a significantly smaller competitor, and in terms of internet subscribers is comparable in size to that of TekSavvy, a Reseller who has publicly stated it has over 300,000 internet customers. It is simply illogical to us that we must provide our network access at these rates to a Reseller who has comparable subscriber numbers to us, while Bell is not currently required to do so in the Atlantic Provinces.

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4 BCE 2018 Annual Report
Pursuant to Telecom Regulatory Policy CRTC 2015-326.
38. Eastlink has been an A+ student in terms of fulfilling the government’s objectives of facilities based investment and competition across rural Canada – areas of the country where the cost to invest requires a completely different business case and risk. Yet, it is only Eastlink who must provide wholesale access to our higher speed networks in Nova Scotia, Prince Edward Island, as well as in all smaller communities in Newfoundland outside St. John’s where only Bell and Eastlink offer facilities-based service. The regulatory holiday afforded to Bell for over the last 3 years provides them undeniable competitive advantages when one considers that in our region Bell will be able to continue investing and recovering full returns on its FTTH investments, while Eastlink has been making ongoing and significant investments into our broadband network throughout rural Canada for years, while receiving below-cost wholesale rates for access to our network.

Final comments

41. Eastlink and other facilities-based providers are for-profit businesses. As a result, imposing regulatory obligations that do not recognize the need for cost recovery and a reasonable profit will significantly impair our ability to continue investing. Eastlink has always supported measures aimed at improving competition within the Canadian communications industry. Indeed, the Commission’s pro-facilities-based competition policies allowed Eastlink to assume the risks of upgrading our facilities to launch local telephone and internet services and to successfully acquire spectrum and build out our advanced LTE wireless networks. We continue to rely on those pro-competition policies aimed at facilities-based development in order to expand our networks and improve upon them.

However, a regulatory framework that continues to support the entry by non-facilities-based competitors, particularly in smaller communities like those served by Eastlink, and worse – at below cost, unjustifiably low wholesale rates, is flawed and will only continue to undermine the Federal Government’s objectives of improving Canada’s
telecommunications facilities and networks, and ensuring that Canada remains competitive in the future. Indeed, as noted above, the current framework has already impeded Eastlink’s ability to continue investing in its rural networks.

***End of Document***
APPENDIX C.1
(English)

to the Petition to the Governor in Council
pursuant to Section 12 of the *Telecommunications Act*
Cogeco's perspective on the impact of Telecom Order CRTC 2019-288

Cogeco: Devoted to regional communities, and the second-largest cable operator in Ontario and Québec

Introduction

Cogeco was founded in Trois-Rivières by the Audet family more than 60 years ago and is the second-largest cable operator in Ontario and Québec. The company, headquartered in Montréal, operates in the communications and media sectors. It provides a wide range of Internet, video and telephone services to its residential and business customers in Canada and the United States. Cogeco Connexion, the Canadian subsidiary of Cogeco, has a network that reaches from Windsor, Ontario, to Gaspé, Québec, while Atlantic Broadband, Cogeco’s US subsidiary, has a network extending from Maine to Florida.

Cogeco is the 9th largest cable operator in North America in terms of high-speed Internet customers. Cogeco is also a leader in the Québec radio industry, with 22 stations in 14 regions in Québec, and one in Ontario. Its news agency, Cogeco Nouvelles, is Québec’s largest private radio news agency.

The CRTC's decision on wholesale market rates for high-speed Internet will have significant negative effects on Cogeco, the industry and consumers. The wholesale rates set by the CRTC, both in 2016 and recently, are below the actual costs incurred by Cogeco. As a result, these decisions will adversely affect Cogeco's operations, customer services, and the investments already made in communities as well as any future investments. The government cannot impose rates that are not profitable nor create unfair competition and market dynamics that go against its own policies and objectives.

1. Overview of Cogeco

In the Canadian cable industry, Cogeco is a major regional partner that covers an extensive territory in Ontario and Québec but that nevertheless remains a small player among the big facilities-based players.

Second-largest cable operator in Ontario and Québec

Cogeco is the second-largest cable operator in Ontario and Québec (based on the number of basic cable service subscribers). The company provides service to more than 800,000 customers in the two provinces through its extensive network covering a territory with 1.8 million homes.
In Canada, the company makes more than $240 million in capital investments each year in the operation and expansion of its hybrid fibre and coaxial cable network. It provides more than 3,150 stable, well-paid jobs and maintains solid relationships with the communities it serves.

**An extensive regional network serving 427 communities**

Cogeco’s powerful network covers a wide regional territory in Canada, extending from western Ontario to eastern Québec. It serves more than 427 communities in various regions. These communities are all located outside the major urban centres. The areas served have a low population density and in some cases include rural sectors.

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**Leading-edge technology and continuous innovation**

Cogeco uses leading-edge technology and provides high-quality connectivity services with Internet speeds of 120 Mbps in nearly all of its coverage area. It offers speeds of 1 Gbps in about 60% of its coverage area. Cogeco intends, over the next few years to continue deploying 1 Gbps service by means of DOCSIS 3.1 technology.

Cogeco uses optical fibre technology together with coaxial cable. This boosts network capacity and improves performance. Optical fibre provides unmatched capacity in carrying signals, while cable has properties that allow for the gradual evolution of distribution networks to give users speeds of up to 10 Gbps.

With its commitment to innovation, Cogeco was the first company in Canada to offer cable-based Internet service. The company was also the first to launch the advanced TiVo television platform in Canada and the first to bring the French language onto this platform. It was also the
first to provide full Netflix integration on its platform. The company is also in the process of moving to an Android-compliant IP video platform.

In addition, Cogeco is a proud partner and board member of CableLabs, the innovation and R&D branch of the North American cable industry. Cogeco has been involved with CableLabs for more than 25 years. CableLabs is the incubator and developer of advanced technologies used in the industry to meet consumers’ expectations and connectivity needs ever more effectively.

**Investments directed to outlying areas and a player in regional economic development**

Over the years, Cogeco has maintained its entrepreneurial spirit, has had the audacity to take risks and has made significant ongoing investments to carve out a place in the market and to better serve its customers. Today, Cogeco contributes substantially to the economic growth of rural and underserved areas and ensures its residential and commercial customers of access to a range of services at the leading edge of technology. Since the start of its cable operations in 1972, Cogeco has invested more than $2.3 billion in infrastructure to develop and update its powerful hybrid network in Ontario and Québec. Cogeco’s network and operations serve 427 communities in 87 municipalities in Ontario and more than 41 regional county municipalities in Québec.

Cogeco’s head office is located in Montréal, and its regional operating centres are in Trois-Rivières for Québec customers and in Burlington for Ontario customers. Unlike some other companies, it maintains its call centres in the regions where it operates.

Cogeco favours buying local and works with more than 3,800 Canadian suppliers.

Cogeco is very involved in the cultural, social and economic life of the communities where it operates. In 2018, Cogeco supported more than 300 local organizations. Over the years, Cogeco has also developed major partnerships with institutions including the Amphithéâtre Cogeco in Trois-Rivières and Centrexpo Cogeco in Drummondville.

Cogeco also plays a leading role in regional news coverage through its radio stations, its Cogeco Nouvelles news agency and its 37 community television stations in Ontario and Québec.

**2. Unique market position**

- Cogeco’s situation is different from other major facilities-based Internet service providers, such as Rogers, Videotron or Shaw, as it operates a network of facilities that is located solely outside major urban centres, with a regional focus. Cogeco’s network infrastructure reaches across a wide territory, from Windsor, Ontario, to Gaspé, Québec. If placed end to end, Cogeco’s fibre and coaxial cable network would stretch over a distance of 58,900 kilometres, equal to five cross-Canada round trips, from coast to coast. **Accordingly, Cogeco’s cost structure is different from that of major facilities-based players due to the much lower population density in non-metropolitan areas and the wider span of the network and the territory to be served.** Generally speaking, the density of dwellings per square kilometre in
Cogeco’s footprint is half to a third that of the provinces’ two major metropolitan areas, Montréal and Toronto. The cost of serving an individual home is therefore higher for Cogeco than for its larger peers, which have activities mostly in urban centres. The span of Cogeco’s footprint also has an impact on the cost of operating and maintaining its network infrastructure. The costs of servicing are also higher, because the distances travelled by trucks for technical and installation services are longer, with fewer customers served. The network’s broad expanse also requires a number of decentralized regional offices.

- Cogeco operates in Ontario and Québec, where the presence of independent Internet service providers (resellers) that benefit from the wholesale access regulation is the largest, as documented by the Competition Bureau. In its report, the Competition Bureau shows that independent Internet service providers benefiting from mandatory access to the networks of facilities-based suppliers at regulated wholesale rates have become established players, with a market share of up to 20% in the regions where they focus their marketing campaigns. Based on the Competition Bureau’s report, we can see that their marketing efforts are concentrated in Ontario and Québec.

- Cogeco provides three wireline services: telephone, high-speed Internet and video. It does not currently offer mobile telephone services, given the high barriers to entry in this market for a player of Cogeco’s size. In the wireline market, demand for telephone services is in decline and demand for video is falling moderately, while demand for high-speed Internet is growing. The only growth product in Cogeco’s offering is the flagship product of the resellers that have access to our networks under current regulations and that therefore compete against Cogeco at greatly discounted wholesale prices while enjoying no limit to the network capacity being used, and with no obligation to invest. The impact of this competition is therefore significant.

- Cogeco’s regional nature results from its history, its organic growth outside major centres and acquisitions made over the years. With the acquisition of several small regional players that wanted to sell their networks, Cogeco ended up with a distribution infrastructure with only small amounts of fibre, since these companies lacked the financial capacity to invest. Following these purchases, Cogeco had to invest heavily to upgrade this infrastructure.

- Cogeco is the smallest of the big facilities-based players. Cogeco invests heavily in developing, upgrading and maintaining a very extensive regional network. However, the company doesn’t have the same financial, technical, and sales and marketing capabilities as the industry’s major players. These players also benefit from additional revenues from mobile services, for which demand is growing, and that are not subject to wholesale regulations.

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In order to provide quality service and to meet the growing needs of its customers, Cogeco has made large investments in deploying its infrastructure to offer speeds of 1 Gbps, now available in approximately 60% of its coverage area. This recent investment in 1 Gbps, along with any potential future investment in service improvement, is now at risk due to a recent CRTC ruling\(^3\) that eliminates an approach based on speed bands.\(^4\) The elimination of distinct prices per speed band is an untenable situation for Cogeco as resellers using the Cogeco network will be able to benefit from 1 Gbps access the same price as for the lowest speed and will be able to offer this service to their customers at a low price, without any variation in their own costs.

In addition, Cogeco offers cable services in the United States under the Atlantic Broadband brand. The company has undertaken four acquisitions in the United States. Cogeco is a Canadian company that wants to continue investing in serving Canadian communities. However, the CRTC’s regulations on the wholesale market and the recent decision on rates may therefore have the effect of growing the portion of future investments to be made in the United States compared to those made in Canada.

### 3. Impact of the CRTC ruling

The wholesale rates established by the CRTC, both in 2016 and in August 2019, are below the actual costs incurred by the company

Cogeco supports healthy competition in the Canadian telecommunications market, in both the wireline and wireless sectors. To this end, fair and reasonable wholesale rates must prevail to guarantee ongoing and sustainable investments in networks and to enable Internet deployment in regions with little or no service.

The table below shows the magnitude for Cogeco of the rate reduction set out in CRTC Order 2019-288 dated August 15, 2019. This decrease in rates varies between 6% and 76% when compared to the rates proposed by Cogeco in 2016 for each speed. The decrease is 67% for capacity per 100-Mbps bandwidth segment. The magnitude of these decreases is unprecedented and puts Cogeco in a situation where each customer that is a reseller using Cogeco’s network represents a loss for the company, given that the wholesale rate set by the CRTC, both in 2016 and recently, is below the actual costs incurred by Cogeco in serving this customer.

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\(^3\) Telecom Order CRTC 2019-288.
Rate by speed band

<table>
<thead>
<tr>
<th>Speed band</th>
<th>Rates proposed by Cogeco 2016-06-30</th>
<th>Interim rates CRTC 2016-396 2016-10-06</th>
<th>Final rate CRTC 2019-288 2019-08-15</th>
<th>Difference between proposed rates and final rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>$14.21</td>
<td>$12.73</td>
<td>$13.37</td>
<td>-6%</td>
</tr>
<tr>
<td>7-15</td>
<td>$19.57</td>
<td>$14.78</td>
<td>$13.37</td>
<td>-32%</td>
</tr>
<tr>
<td>16-40</td>
<td>$23.78</td>
<td>$15.06</td>
<td>$13.37</td>
<td>-44%</td>
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<td>41-60</td>
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<td>$50.36</td>
<td>$42.05</td>
<td>$13.37</td>
<td>-73%</td>
</tr>
<tr>
<td>121-250</td>
<td>$55.81</td>
<td>$51.25</td>
<td>$13.37</td>
<td>-76%</td>
</tr>
</tbody>
</table>

Rate based on the capacity for a 100-Mbps service

<table>
<thead>
<tr>
<th>Final capacity-related monthly rate for a 100-Mbps service</th>
<th>Rate proposed by Cogeco 2016-06-30</th>
<th>Interim rate CRTC 2016-396 2016-10-06</th>
<th>Final rate CRTC 2019-288 2019-08-15</th>
<th>Difference between proposed rate and final rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$716.45</td>
<td>$323.73</td>
<td>$233.49</td>
<td>-67%</td>
</tr>
</tbody>
</table>

The situation is all the more serious as Cogeco finds that customers of Internet resellers consume on average more data than a typical residential customer, thus requiring Cogeco to invest steadily in order to maintain its transportation and distribution infrastructure and to avoid network congestion in order to provide quality service to both the reseller customers who use the Cogeco network, and for Cogeco’s own residential and business customers.

In addition, as explained above, the resellers’ Internet offering is mainly concentrated in Ontario and Québec, the only two provinces where Cogeco operates. As indicated by the Competition Bureau in its recent study entitled Giving Choice: A Study of Competition in the Canadian Broadband Industry, the market share of wholesale competitors increased during the last ten years. In Canadian regions where they have concentrated their marketing efforts, wholesale competitors hold 15% to 20% of the market. The impact of the CRTC's decision is therefore greatly increased for facility-based suppliers, such as Cogeco, which operate exclusively in these two markets.

Cogeco emphasizes that eliminating speed-band pricing characterized by separate rates will almost certainly lead to a shift in market dynamics, with resellers able to offer high speeds to consumers at low prices with no variation in their own costs seeing that, based on the rates established by the CRTC, resellers using Cogeco’s network will pay $13.37 regardless of the speed used. This situation is untenable, since Cogeco incurs additional speed-specific costs to ensure that its network can support increased demand from customers using high speeds.

Moreover, it is misleading to claim that these same consumers, who will have access to higher speeds, will change their consumption habits and increase the capacity consumed each month. The idea that higher consumption will offset the shortfall caused by newly uniform speed rates is fiction. Consumers who use the most bandwidth are those who download the largest amount of data, particularly video and online gaming. However, it is not because of increased speeds that resellers’ customers will suddenly change their consumption habits to download more frequently or all become gamers!

The wholesale bandwidth purchase by a reseller is dependent on the use of the reseller’s customers at peak periods. Even if some customers changed their habits and drastically increased their download activities, they would not all do so at the same time at peak periods, which means that a reseller will generally not have to buy more wholesale bandwidth when they will offer higher speeds.

Resellers may also choose to maintain separate prices by speed band for their customers thus increasing their profit margins since they would henceforth benefit from discounted and flat wholesale rates, regardless of speed band, again with no obligation to invest in building, operating and maintaining their own network.

While the expansion of the Internet in the regions and in rural areas is a government priority, the final rates adopted by the CRTC will have a devastating effect on Cogeco’s ability to conduct expansion projects in various towns and adjacent rural areas in the territories it serves.

Indeed, government programs aimed at stimulating Internet rollout beyond major urban centres require substantial private investment. Since the rates set out in the CRTC order are below the actual costs incurred by the company, it will be difficult to generate the cash flow that would enable investment in new projects and provide for profitability within a realistic timeframe. It also becomes unthinkable to hope for any return on investment, something vital for a publicly traded company. Expansion projects that will materialize will be fewer in number and will likely require more and more public money.

**Conclusion**

Cogeco is a dynamic company which has been contributing, since its founding, to the economic well-being of the regional communities it serves. The company invests heavily in infrastructure to provide Internet services that meet the growing needs of consumers in terms of speed, data volumes and access in underserved areas.
Cogeco favours healthy competition in the Canadian telecommunications market. However, current regulations that allow resellers to compete with Cogeco at heavily discounted wholesale prices below Cogeco’s own costs, with no limits on the network capacity used by resellers and no obligation for them to invest in capacity, will not ensure ongoing and sustainable investment by Cogeco in its network, whether for maintaining and upgrading the network or for pursuing Internet deployment in underserved and unserved areas.

With a strong regional presence established over the last 60 years, Cogeco is well positioned to support the government in fulfilling its goal of stimulating private investment in network infrastructure that can provide high-speed Internet access to all Canadians.

Cogeco plays a major role and wishes to continue investing in regional economic development. With this in mind, the company is asking the government to modernize the current regulations so as to encourage investment in the expansion of Internet networks in underserved and unserved areas, to stimulate innovation in network infrastructure and to ensure affordability and greater choice for Canadian consumers.
APPENDIX C.2
(French)

to the Petition to the Governor in Council
pursuant to Section 12 of the *Telecommunications Act*
Point de vue de Cogeco sur l’impact de l’ordonnance de télécom CRTC 2019-288

Cogeco: joueur dédié aux régions et deuxième câblodistributeur en importance au Québec et en Ontario

Introduction

Fondée à Trois-Rivières par la famille Audet il y a plus de 60 ans, Cogeco est le deuxième câblodistributeur en importance au Québec et en Ontario. L’entreprise, dont le siège social est à Montréal, œuvre dans les secteurs des communications et des médias. Elle offre une vaste gamme de services Internet, de vidéo et de téléphonie à ses clients résidentiels et d’affaires au Canada et aux États-Unis. Le réseau de Cogeco Connexion, la filiale canadienne de Cogeco, s’étend de Windsor à Gaspé, tandis que celui d’Atlantic Broadband, la filiale américaine de Cogeco, s’étend du Maine à la Floride.

Cogeco est le 9e plus grand câblodistributeur en Amérique du nord (basé sur le nombre de clients abonnés au service Internet haute vitesse). L’entreprise est aussi un leader dans l’industrie radiophonique québécoise avec 22 stations de radio réparties dans 14 régions du Québec et une en Ontario. Son agence de nouvelles, Cogeco Nouvelles, est la plus importante agence d’information radiophonique privée au Québec.

La décision du CRTC sur les tarifs de marché de gros pour l’Internet à haute vitesse aura des effets négatifs importants pour Cogeco, l’industrie et les consommateurs. Ces tarifs de marché de gros du CRTC sont en dessous des coûts de Cogeco, et ce tant les tarifs provisoires de 2016 que ceux annoncés récemment. Conséquemment, ces décisions nuiront aux opérations de Cogeco, aux services offerts aux clients, aux investissements déjà réalisés dans les communautés ainsi qu’aux investissements à venir. Le gouvernement ne peut pas imposer des tarifs qui ne sont pas rentables, ni créer une concurrence déloyale et une dynamique de marché qui vient à l’encontre même de ses propres politiques et objectifs.

1. Survol de Cogeco

Au sein de l’industrie canadienne de la câblodistribution, Cogeco est un partenaire régional d’importance qui couvre un très large territoire au Québec et en Ontario mais qui demeure malgré tout un petit joueur parmi les grands joueurs dotés d’installations.

Deuxième câblodistributeur en importance au Québec et en Ontario

Cogeco est le deuxième câblodistributeur en importance au Québec et en Ontario (basé sur le nombre de clients abonnés au service de base de câblodistribution). L’entreprise offre ses services à plus de 800 000 clients dans les deux provinces à travers son réseau étendu couvrant un territoire de 1,8 millions de maisons.

13 novembre 2019
Au Canada, l'entreprise investit chaque année un capital de plus de 240 millions $ dans l'exploitation et l'expansion de son réseau hybride de fibre et de câble coaxial, fournit plus de 3,150 emplois stables et bien rémunérés et entretient des relations solides avec les communautés qu'elle dessert.

**Réseau régional étendu desservant 427 communautés**


**Technologie de pointe et innovation continue**

Cogeco utilise une technologie de pointe et offre des services de connectivité de grande qualité avec des vitesses Internet de 120 Mbps dans la presque totalité de sa zone de couverture en plus d’une offre de 1 Gbps dans environ 60 % de sa zone de couverture. Cogeco compte poursuivre au cours des prochaines années le déploiement du service de 1 Gbps au moyen de la technologie DOCSIS 3.1.

Cogeco utilise la technologie de fibre optique conjointement avec le câble coaxial, ce qui permet d’augmenter la capacité des réseaux et d’en améliorer le rendement. La fibre optique offre une capacité sans égale pour le transport des signaux, tandis que le câble bénéficie de propriétés permettant une évolution graduelle des réseaux de distribution à des débits jusqu’à 10 Gbps par usager.

Vouée à l’innovation, Cogeco a été la première entreprise au Canada à offrir un service Internet par câble. L’entreprise a aussi été la première à lancer la plateforme télévisuelle de pointe TiVo.
au Canada, à intégrer la langue française à la plateforme et à offrir une intégration complète de Netflix sur sa plateforme. L'entreprise est aussi maintenant en voie d'évoluer vers une plateforme vidéo entièrement IP compatible à Android.

Cogeco est aussi un fier partenaire et un membre du conseil d'administration de CableLabs, la branche d'innovation et de R & D de l'industrie nord-américaine de la câblodistribution. Cogeco y est impliquée depuis plus de 25 ans. CableLabs est l'incubateur et développeur des technologies de pointe qui sont déployées dans l'industrie pour toujours mieux répondre aux attentes et besoins en connectivité des consommateurs.

**Investissements dédiés exclusivement aux régions et acteur du développement économique régional**

Au fil des ans, Cogeco a toujours gardé son esprit entrepreneurial, eu l'audace de prendre des risques et réalisé des investissements significatifs et continus afin de se tailler une place dans le marché et de toujours mieux servir ses clients. Aujourd'hui, Cogeco contribue grandement à la croissance économique des régions et assure à ses clientèles résidentielle et commerciale l'accès à une gamme de services à la fine pointe de la technologie. Depuis le début des activités de Cogeco en câblodistribution, en 1972, Cogeco a investi plus de 2,3 milliards $ en infrastructure dans l'expansion et la mise à jour de son puissant réseau hybride au Québec et en Ontario. Le réseau et les activités de Cogeco desservent 427 communautés réparties dans plus de 41 MRC au Québec et 87 municipalités en Ontario.

Le siège social de Cogeco est situé à Montréal et ses centres opérationnels sont en région à Trois-Rivières pour la clientèle québécoise et à Burlington pour les clients en Ontario. Contrairement à plusieurs, l'entreprise maintient ses centres d’appels dans les régions où elle exerce ses activités.

Cogeco favorise l’achat local et travaille avec plus de 3 800 fournisseurs canadiens.

Cogeco est très impliquée dans la vie culturelle, sociale et économique des communautés dans lesquelles elle exerce ses activités. En 2018, Cogeco a soutenu plus de 300 organismes locaux. Au fil des ans, Cogeco a aussi développé des partenariats importants tels que l’Amphithéâtre Cogeco, à Trois-Rivières et le Centrexpo Cogeco à Drummondville.

De plus, Cogeco joue un rôle de premier plan dans l’information régionale à travers ses stations de radio, son agence Cogeco Nouvelles, et ses 37 télévisions communautaires au Québec et en Ontario.

**2. Position unique dans le marché**

- La situation de Cogeco est différente de celles des autres grands fournisseurs de services Internet dotés d’installations, comme Rogers, Vidéotron ou Shaw, vu qu’elle exploite un réseau hors des grands centres urbains et dédié aux régions. L’infrastructure de réseau de Cogeco s’étend sur un large territoire, de Windsor, en Ontario, à Gaspé, au Québec. Quand la fibre et le câble coaxial sont mis bout à bout, le réseau de Cogeco s’étend sur une distance de 58 900 km, ce qui équivaut à cinq aller-retours d’est en ouest à travers le Canada.

Conséquemment, la structure de coûts de Cogeco est différente de celle des grands joueurs dotés d'installations parce que la densité de population est nettement plus faible en région
et que l’étendue du réseau et du territoire à desservir est plus large. La densité d’habitations par kilomètre carré dans le réseau de Cogeco est généralement deux fois moins grande ou le tiers de la densité des grandes régions métropolitaines comme Montréal et Toronto. Le coût de desserte d’une maison est donc plus élevé pour Cogeco que ses pairs dont les activités sont concentrées surtout dans les grands centres urbains. L’étendue du territoire de Cogeco a aussi un impact sur les coûts d’exploitation et de maintenance de l’infrastructure de son réseau. Les coûts de services sont aussi plus élevés car la distance parcourue par les camions pour les services techniques et d’installation est plus longue et dessert moins de clients. La large étendue du réseau nécessite aussi la présence de plusieurs bureaux régionaux décentralisés.

- Cogeco exerce ses activités au Québec et en Ontario où la présence des fournisseurs indépendants de services Internet (revendeurs) qui bénéficient du régime d’accès au marché de gros pour la revente est la plus forte, tel que documenté par le Bureau de la concurrence. En effet, ce rapport indique que les fournisseurs de services Internet indépendants, qui bénéficient d’accès obligatoires aux réseaux des fournisseurs dotés d’installations à des tarifs de gros réglementés, sont maintenant devenus des joueurs établis qui détient jusqu’à 20 % des parts de marché dans les régions où ils concentrent leurs campagnes de mise en marché. Selon le rapport du Bureau, nous constatons que c’est principalement au Québec et en Ontario qu’ils concentrent actuellement leurs efforts.

- Cogeco offre trois services filaires, soit la téléphonie, l’Internet haute vitesse et la vidéo, et n’offre pour le moment pas de services de téléphonie mobile vu les barrières à l’entrée significatives dans ce marché pour un joueur de la taille de Cogeco. Dans le marché filaire, la demande pour le téléphone est en déclin, celle pour la vidéo diminue modérément tandis que celle pour l’Internet haute vitesse est en croissance. Ce seul produit en croissance dans l’offre de Cogeco est toutefois le produit phare des revendeurs qui ont accès au réseau de Cogeco grâce à la réglementation et qui viennent donc concurrencer Cogeco à des prix de gros fortement escomptés et ce, sans limite de capacité du réseau utilisée, ni obligation d’investir pour bâtir leur propre infrastructure. L’impact de cette concurrence est donc significatif.

- La nature régionale de Cogeco vient de son histoire, de sa croissance organique en région et des acquisitions réalisées au fil des ans. À travers l’acquisition de plusieurs petits joueurs régionaux qui souhaitaient vendre leurs réseaux, Cogeco s’est souvent retrouvée avec des infrastructures de transport pauvres en fibre car ces entreprises n’avaient pas eu la capacité financière d’investir. Conséquemment, Cogeco a dû investir de façon importante afin de mettre à niveau ces infrastructures après leur achat.


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Cogeco est le plus petit des grands joueurs dotés d'installations. Cogeco investit massivement pour le développement, la mise à jour et l'entretien d’un réseau régional très étendu. L’entreprise n’a toutefois pas les mêmes capacités financières, techniques, de ventes et marketing que les grands joueurs de l’industrie. De plus, ces entreprises bénéficient aussi de revenus provenant de services de téléphonie mobile dont la demande est en croissance et qui ne sont pas assujettis à une réglementation de tarifs de marché de gros.

Dans le but d’offrir un service de qualité et de répondre aux besoins grandissants de sa clientèle, Cogeco a investi de façon importante dans le déploiement de son infrastructure pour offrir une vitesse de 1 Gbps qui est maintenant disponible dans environ 60 % de sa zone de couverture. Cet investissement récent dans le 1 Gbps et tout investissement futur potentiel dans l’amélioration des services est maintenant à risque vu la récente décision du CRTC3 de mettre fin à son approche axée sur les tranches de vitesses4. L’abolition de prix distincts par tranche de vitesse est une situation intenable pour Cogeco puisque les revendeurs utilisant le réseau de Cogeco pourront bénéficier de l’accès 1 Gpbs au même prix que pour la vitesse la plus basse et seront en mesure d’offrir ce service à leurs clients à bas prix et ce, sans aucune variation de leurs propres coûts.

Finalement, Cogeco offre aussi des services de câblodistribution aux États-Unis sous la marque Atlantic Broadband. L’entreprise a réalisé quatre acquisitions aux États-Unis. Cogeco est une entreprise canadienne qui souhaite continuer d’investir pour servir les communautés canadiennes. Toutefois, la réglementation du CRTC sur le marché de gros et la décision récente sur les tarifs risquent conséquemment de venir accentuer la portion des investissements futurs qui seront faits aux États-Unis par rapport à ceux réalisés au Canada.

3. Impact de la décision du CRTC

Les tarifs de gros établis par le CRTC, autant en 2016 qu’en août 2019, sont en deçà des coûts réels encourus par l’entreprise

Cogeco est favorable à une saine concurrence dans le marché canadien des télécommunications, tant dans le secteur filaire que dans le marché sans-fil. Pour ce faire, des tarifs de gros justes et raisonnables doivent prévaloir afin de garantir des investissements continus et durables dans les réseaux et pour permettre le déploiement d’Internet dans les régions qui sont mal ou non desservies.

Le tableau ci-dessous démontre l’ampleur pour Cogeco de la réduction des tarifs établis dans l’ordonnance CRTC 2019-288 du 15 août 2019. La diminution des tarifs varie entre 6 % et 76 % lorsque comparé aux tarifs que Cogeco avait proposés en 2016 pour la vitesse. La réduction est de 67 % pour la capacité par tranche de 100 Mbps. L’ampleur de ces diminutions est sans précédent et place Cogeco dans une situation où chaque client qui est un revendeur utilisant le réseau de Cogeco représente une perte pour Cogeco puisque le tarif de gros établi par le CRTC,

3 Ordonnance de télécom CRTC 2019-288
4 Ordonnance de télécom CRTC 2019-288, para. 159
autant en 2016 que récemment, est en deçà des coûts réels encourus par l’entreprise pour desservir ce client.

**Taux par tranche de vitesse**

<table>
<thead>
<tr>
<th>Tranche de vitesse</th>
<th>Taux proposés par Cogeco 30/06/2016</th>
<th>Taux provisoires CRTC 2016-396 06/10/2016</th>
<th>Taux final CRTC 2019-288 15/08/2019</th>
<th>Différence entre taux proposés et taux final</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>14,21 $</td>
<td>12,73 $</td>
<td>13,37 $</td>
<td>-6 %</td>
</tr>
<tr>
<td>7-15</td>
<td>19,57 $</td>
<td>14,78 $</td>
<td>13,37 $</td>
<td>-32 %</td>
</tr>
<tr>
<td>16-40</td>
<td>23,78 $</td>
<td>15,06 $</td>
<td>13,37 $</td>
<td>-44 %</td>
</tr>
<tr>
<td>41-60</td>
<td>34,11 $</td>
<td>24,98 $</td>
<td>13,37 $</td>
<td>-61 %</td>
</tr>
<tr>
<td>61-120</td>
<td>50,36 $</td>
<td>42,05 $</td>
<td>13,37 $</td>
<td>-73 %</td>
</tr>
<tr>
<td>121-250</td>
<td>55,81 $</td>
<td>51,25 $</td>
<td>13,37 $</td>
<td>-76 %</td>
</tr>
</tbody>
</table>

**Taux relatif à la capacité pour un service de 100 Mbps**

<table>
<thead>
<tr>
<th>Tarif mensuel définitif relatif à la capacité pour un service de 100 Mbps</th>
<th>Taux proposé par Cogeco 30/06/2016</th>
<th>Taux provisoire CRTC 2016-396 06/10/2016</th>
<th>Taux final CRTC 2019-288 15/08/2019</th>
<th>Différence entre taux proposé et taux final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>716,45 $</td>
<td>323,73 $</td>
<td>233,49 $</td>
<td>-67%</td>
</tr>
</tbody>
</table>

La situation est d’autant plus sérieuse que Cogeco constate que les clients des revendeurs de services Internet consomment en moyenne plus de données qu’un client résidentiel typique et de ce fait oblige Cogeco à investir de manière constante pour maintenir ses infrastructures de transport et de distribution et d’éviter la congestion du réseau afin d’offrir un service de qualité, tant aux clients des revendeurs qui utilisent le réseau de Cogeco, que les clients résidentiels et d’affaires de Cogeco.

Cogeco souhaite souligner que l’abolition de prix distincts par tranche de vitesse entraînera quasi assurément un changement de dynamique de marché où les revendeurs seront en mesure d’offrir de hautes vitesses aux consommateurs à bas prix et ce, sans aucune variation de leurs propres coûts puisque selon les tarifs établis par le CRTC, les revendeurs utilisant le réseau de Cogeco lui remettront 13,37 $, et ce peu importe la tranche de vitesse utilisée. Cette situation

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est intenable puisque Cogeco encourt des coûts additionnels spécifiquement liés à la vitesse pour s’assurer que son réseau puisse supporter une demande accrue de clients utilisant des vitesses élevées.

De plus, il est incorrect de prétendre que ces mêmes consommateurs, qui auront accès à de plus hautes vitesses, changeront pour autant leurs habitudes de consommation en augmentant de manière significative la capacité consommée mensuellement. L’idée que l’augmentation de la consommation de capacité compenserait le manque à gagner occasionné par les tarifs dorénavant uniformes par tranche de vitesse est une fiction. Les consommateurs qui utilisent le plus de bande passante sont ceux qui téléchargent des quantités importantes de données, notamment de la vidéo et des jeux en ligne. Ce n’est pas parce que leurs vitesses augmenteront que les clients des revendeurs transformeront du tout au tout leurs habitudes de consommation et se mettront à télécharger plus de fichiers subitement ou qu’ils deviendront tous adeptes de jeux en ligne!

L’achat de bande passante en gros par un revendeur est fait en fonction de l’utilisation des clients de ces revendeurs aux périodes de pointe. Même si certains clients des revendeurs modifiaient de façon importante leurs habitudes et augmentaient drastiquement leurs téléchargements, ils ne le feront pas tous en même temps en période de pointe, de sorte que les revendeurs n’auront généralement pas à acheter plus de bande passante en gros lorsqu’ils offriront des vitesses plus élevées.

Les revendeurs pourraient quant à eux choisir de maintenir des prix distincts par tranche de vitesse pour leurs clients et ainsi augmenter leur marge de profit puisqu’ils bénéficieront dorénavant de tarifs de gros réduits et uniformes, peu importe la tranche de vitesse et ce, toujours sans aucune obligation d’investir pour développer, exploiter et entretenir leur propre réseau.

Alors que l’expansion de l’Internet dans les régions et en milieu rural est une priorité du gouvernement, les tarifs finaux adoptés par le CRTC affecteront malheureusement la capacité de Cogeco à réaliser des projets d’expansion en région et dans les milieux ruraux adjacents aux territoires qu’elle dessert.

En effet, l’ensemble des programmes gouvernementaux visant à stimuler le déploiement de l’internet en région requiert des investissements privés importants. Les taux prévus par le CRTC étant en deçà des coûts réels encourus par l’entreprise, il deviendra difficile de dégager un flux de trésorerie permettant d’investir dans de nouveaux projets d’expansion de réseau tel qu’initialement prévu et de rentabiliser ceux-ci sur un horizon de temps réaliste. Les projets d’expansion qui se concrétiseront seront moins nombreux et nécessiteront vraisemblablement un apport d’argent public de plus en plus substantiel.

**Conclusion**

Cogeco est une entreprise dynamique qui contribue depuis sa fondation au mieux-être économique des régions. L’entreprise investit massivement dans l’infrastructure pour offrir des services Internet qui répondent aux besoins grandissants des consommateurs tant sur le plan de la vitesse, du volume de données que de l’accès pour les régions moins desservies.
Cogeco est favorable à une saine concurrence dans le marché canadien des télécommunications. Toutefois, la réglementation actuelle qui permet aux revendeurs de concurrencer Cogeco à des prix de gros qui sont en bas des coûts de Cogeco, et ce, sans limite de capacité de réseau utilisée par les revendeurs et sans obligation d’investir de leur part, ne permettra pas de garantir des investissements continus et durables de Cogeco dans son réseau tant pour le maintien et la mise à niveau du réseau que pour poursuivre le déploiement d’Internet dans les régions qui sont mal ou non desservies.

Grâce à sa forte présence régionale qui s’est bâtie au cours des 60 dernières années, Cogeco est bien placée pour soutenir le gouvernement dans l’atteinte de son objectif de stimuler les investissements privés dans l’infrastructure de réseaux d’accès à Internet haute vitesse pour tous les Canadiens. Pour ce faire, l’entreprise demande au gouvernement de moderniser la réglementation actuelle afin qu’elle encourage les investissements pour l’expansion des réseaux Internet dans les zones mal desservies et non desservies, stimule l’innovation dans l’infrastructure de réseau et garantisse l’accessibilité économique et plus de choix pour les consommateurs canadiens.
APPENDIX D

to the Petition to the Governor in Council
pursuant to Section 12 of the Telecommunications Act
ROGERS’ PERSPECTIVE ON

THE IMPACT OF

CRTC TELECOM ORDER 2019-288

Rogers Communications Canada Inc.

November 13, 2019
Rogers’ Perspective on the Impact of CRTC Telecom Order 2019-288

Introduction

1. Rogers Communications Canada Inc. (“Rogers”) has, since its inception, been one of Canada’s leading technology innovators. From radio, to cable television, to high speed internet, to wireless, Rogers has been at the forefront of delivering to Canadians the latest, most advanced telecommunications and media services in the world. These innovations were only made possible by the vast amounts of capital Rogers invested over the decades. Our founder, Ted Rogers, took enormous risks and came close to the edge a number of times in order to build Rogers’ leading-edge communications networks and services. He risked the entire company on more than one occasion. These investments have succeeded in connecting Canada, despite its vast thinly populated geography, with among the most advanced communications systems in the world. Today, Rogers’ networks help underpin the nation’s digital economy.

2. Unfortunately, the Canadian Radio-television and Telecommunications Commission’s (“CRTC”) decision in Telecom Order 2019-288 (the “Order”) threatens continued investment in Canada’s networks and endangers the country’s competitive position in the world. The Government and regulators must take a balanced approach to ensure all of Canada’s communications objectives are met. The rates established by the Order failed to do so. Rogers is now compelled to sell access to its networks at rates below its costs to deliver such access. Moreover, it now faces competition that Rogers itself is subsidizing. While Rogers has never shied away from risk, the broadband environment under the Order irrationally punishes investment.
3. Rogers was willing to risk the company throughout its history because it had a reasonable prospect of earning a return on its investments. However, there is no point to take the risk of investment when there is little, or no prospect for a return. Over time, Rogers will have to scale back capital spending. Upgrades will be delayed, replacements held off, and footprint expansions simply cancelled. Those projects with the most challenging economics, such as rural communities, will feel the effects first. Ultimately every Canadian region, including the cities, will experience degraded service. The Government must therefore take responsible action to ensure that Rogers can continue to invest as it has historically, helping to provide leading-edge services, reduce digital divides and maintain Canada’s competitive standing.

**Rogers Innovation and Investment**

4. Rogers has a long-standing history of investing in its networks to provide Canadians the best telecommunications and entertainment services it can. After launching FM radio in Canada in the early 1960’s, being a pioneer in cable television in Canada starting in 1967, Rogers launched mobile wireless service in Canada on July 1, 1985, subsequently selling its large U.S. cable holdings to fund wireless roll-out across Canada. As the first cable company in North America to introduce high-speed internet services in 1995, Rogers was the original competitor to the telephone company’s dial-up service and digital subscriber line (DSL) internet service introduced shortly after Rogers’ high-speed internet launch. These are typical of the types of entrepreneurial ventures Rogers has made over the years resulting in many innovations that Canadians take for granted today.
5. These accomplishments took daring and capital. Since 1995, Rogers has invested $18.4 billion in its wireline cable business to connect more Canadians, enable faster speeds and allow Canadians to consume internet as they desire. Similarly, since 1995 Rogers has invested $18.1 billion (plus another $6.5 billion in spectrum purchases at auction) in creating the largest wireless carrier in the country. The capital to enable this level of investment was raised privately, at significant expense and often times outside of Canada due to the perceived investment risk.

6. To deliver world-class services to Canadians, Rogers must invest in advance to ensure that services are built and available when Canadians demand them. For example, as of the 4th quarter of 2018, Rogers disclosed that 60% of its internet customers were on speeds of 100Mbps or faster with unlimited usage, up from 4% five years earlier. To provide that level of service and capacity, Rogers had to deploy and provision a network capable of delivering it. Rogers’ level of investment provides that a customer needing the most advanced network has it ready for them when they want it.

7. Canadians have benefitted from the competition between Rogers and its facilities-based competitors including the telephone companies (“Telcos”). Rogers has pitted its DOCSIS internet service provided over a hybrid fibre-coaxial (“HFC”) network against the Telcos’ DSL service. In fact, it is the Cable Carriers’ investment in DOCSIS that has brought about dynamic competition through motivating the Telcos to invest in fibre to the home networks in order to compete with Rogers’ HFC-based services at higher speeds. Rogers in turn has intended to deploy more fibre to the home itself. The winner of this race is always the consumer.

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1 Data Over Cable Service Interface Specifications (DOCSIS)
2 Competition Bureau Market Study: Delivering Choice: A Study of Competition in Canada’s Broadband Industry, August 7, 2019, Page 45
8. The Order however threatens to alter this dynamic. By imposing uneconomic rates that provide little, if any, incentive to invest, Resellers gain a competitive advantage that allows them to capture the benefit of any future investments by Rogers. Facilities-based carriers now must question the value of further investment.

How The Order Will Affect Rogers

9. If the Order is left to stand, it will have both immediate and long-term impacts on Rogers’ business and ability to invest. The Order does not allow Rogers to recover the costs of providing wholesale internet access service.

10. The following Table shows the dramatic reductions to Rogers’ rates and the collapsing of access rates that differ by speed into a single rate independent of speed.
11. In the days following the release of the Order, Rogers announced that it “is determining next steps, including a review of all future investments in rural and remote communities.” In this regard, Rogers has commented publicly that the wholesale rates established in the CRTC Order “do not recognize the true cost of building and expanding Canada’s world-class broadband networks and will certainly impact Rogers’ future network investments”.  

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12. The most immediate, very substantial impact of the Order is the requirement that Rogers make $140 million in retroactive payments to Resellers. This amount is equal to 10% of Rogers’ entire 2018 capital expenditures for all wireline services including customer premises equipment. It is a larger percentage of broadband network investment. This would be an extraordinary outlay which would result in Rogers making substantial adjustments to its capital expenditure activities in the short term should the Order be upheld. Network investment would be reduced as it is one of the few cost centres where an organization has immediate control of its cash expenditures. The retroactive payment will directly impact our ability to carry through with our 2020 capital plan. Rogers expects that it will have to cancel planned network investments if the wholesale rates established in the CRTC Order come into force.4

13. In regard to the current and forward-looking impact of the Order, as Rogers disclosed in its public press release announcing its third quarter results for 2019 the direct impact of the lower wholesale rates – not accounting for changes to the subscriber base or retail price as a result of the Order – are expected to reduce Rogers’ revenues by $11 million per quarter going forward. On an annualized basis, the direct revenue and EBITDA impact at today’s price levels and subscriber market shares is $44 million per year.

14. The longer-term impact will be even more devastating. If the Order is upheld, Rogers will be forced to sell wholesale access to its networks at a loss. This will be extremely damaging as Resellers will increase market share through pricing action based on the dramatic reduction to their cost structure following the Order. With each additional wholesale customer, Rogers loses revenue that will directly impact our bottom line. Each dollar removed will reduce our capital expenditure. There is simply no other way to offset these losses.

4 Affidavit of David Watt sworn September 12, 2019, para. 86, filed in Cable Carriers Motion to Federal Court of Appeal re CRTC Order 2019-288.
15. At the same time, Rogers will effectively be subsidizing its competition. This will constitute a massive change in the competitive dynamic. Resellers will be able to access Rogers’ advanced network at a lower cost than Rogers can. That will result in pricing pressure that will, again, ultimately reduce capital spending.

16. This damaging dynamic will be compounded by the impact of the Order’s elimination of different prices for different speeds. By virtue of access to all of Rogers’ speed tiers at the same price, resellers will again no longer be required to set a fair economic price for different speed services. Demands from higher speed wholesale end users will disproportionately consume shared neighbourhood resources without providing the necessary dollars to build the network.

17. Ultimately, Rogers will be faced with a choice. As data usage grows, the network will hit capacity. It is a matter of “when”, not “if”. When the network approaches capacity in a specific neighbourhood, Rogers would normally add capacity in order to maintain network performance in that local area. Now that decision is not so simple. Under the Order, there is little incentive to make what was once an automatic investment. Rogers will see little or no return on such an investment. Reseller rates will not have to fully compensate us for these additions. Moreover, the Resellers can offer retail customers lower rates, that Rogers would have to match, but do not cover the costs of provisioning the services. As this cycle continues, the uneconomic rates set by the Order will gradually debilitate networks over the years to come.
18. The Order will have an even greater impact on network upgrades that would provide higher speed services. Customer pressure will ensure that some network investment and maintenance is continued in order to minimize the loss of customers. Making network improvements will be harder to justify. Rogers is forced from time to time to make large bets on new technologies in order to compete with its facilities-based competitors. The Resellers face no such risk. They will simply wait to see which technology is deemed the most desirable by customers and then ride that network. Nor will they have to pay the network for undertaking that risk. Rogers is therefore faced with the choice whether it is worth it to take the risk at all.

19. The other choice facing Rogers is when to extend its network footprint. Less densely populated, more rural regions have very challenging business cases that require substantial additional investment to meet Canada’s broadband service objective. Under the Order, marginal opportunities become losing opportunities. It is incredibly difficult to justify investing into less populated areas of the country when a Reseller can access the new network at below cost rates. They do not have to take significant market shares from Rogers to undermine any possible return on our investment because margins in rural and remote regions are already so thin.

20. The Government and CRTC’s upcoming programs to close the rural digital divide will not be immune to the impact of the Order. Most of these programs are designed to supplement private investment by providing public funding to overcome the economic hurdles in less densely populated regions. The Order however will exacerbate these hurdles as Resellers can immediately offer service in the region at below cost rates, cutting into the projects’ expected returns. Rogers, and other carriers, will therefore require more public funding for each project to make them feasible. Rogers has been bidding to win funding for a number of projects under a variety of government programs. Going forward however, it will take more funding to allow Rogers to make a similar proposal to deliver
service in underserved or unserved areas, if indeed it makes any economic sense at all to participate. As a result, the amount of funding allocated to the various broadband programs will connect fewer Canadians and more public funds will be needed to achieve the Government’s targets. It will not be the Resellers who will make up the investment deficit.

21. Affordability is clearly a government priority and rightfully so. Encouraging competition, when needed, can help. However, competition in the broadband retail market was already strong before the Order. From April 2016 until the release of the Order, the number of resellers on Rogers’ network had grown 63%. Resellers have enjoyed a 24% annual growth in revenue since 2011 while cable carriers have only seen 7% annual growth. Resellers have seen their market share of Internet revenues nearly double while cable carriers have seen their shares decline. The average revenue per user (“ARPU”) of resellers based on the last CRTC Communications Monitoring report is $48.62, which is only 16% less than the Cable Carriers’ ARPU of $58.16 - this while Cable Carriers spend on average 47% of their wireline revenue on wireline capital expenditure and resellers spend virtually nothing.\textsuperscript{5} The rates prior to the Order were clearly working, both in introducing competition into the market and ensuring investment levels were maintained.

22. While the full impact of the Order will only become clear over time, the first consequences are already being witnessed. Eastlink has publicly announced that it is cutting $50M, or 25% of its capital budget as a direct result of the Order. Videotron recently pulled its 1 Gigabit per second service from the market.

\textsuperscript{5} 2018 Communications Monitoring Report, Figure 4.6 Telecommunications capital expenditures as a percentage of revenues, by type of TSP (%)
23. While Rogers is still assessing its future broadband investments in light of the Order and the various challenges being made to the Order, it is worth noting a recent development in regard to Rogers’ overall outlook. For a number of reasons, with its Third Quarter Results Release on October 23rd, Rogers revised its financial guidance for 2019. While capital expenditures were forecast to be between $2.85 billion and $3.05 billion, this range has been reduced to $2.75 billion - $2.85 billion.

Conclusion

24. There is no indication Resellers have been struggling or face material barriers to entry. The Order will result in a transfer in wealth from facilities-based providers to resellers. Investment in networks benefiting Canadians will be reduced and efforts to connect more Canadians to the digital economy will require even more funding due to the impact of below-cost wholesale rates on investment incentives.

25. Reduction in the ability of facilities-based providers like Rogers to invest will directly reduce the speed at which innovations will be brought to market as well as the number of Canadians who will be connected to the digital economy. Canada’s competitive position in the world will falter as the networks which drive the digital economy are pared back.

26. The Government must restore balance into broadband regulation. Allowing the Order to stand will undermine many of the Governments’ own communications objectives. Reasonable rates, that promote access, competition, affordability, investment and innovation are needed to maintain Canada’s strategic network advantages.
APPENDIX E

to the Petition to the Governor in Council
pursuant to Section 12 of the *Telecommunications Act*
Shaw’s Perspective on the Impact of Telecom Order CRTC 2019-288

November 13, 2019
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I. Introduction

1. The Internet plays a fundamental role in connecting Canadian consumers and businesses to each other and the world. That connectivity exists because network builders like Shaw invest billions of dollars to build and operate broadband networks to meet the increasing demands of Canadians for access to high-speed Internet. Without network builders’ commitment to innovation and their continued investment in expanding and upgrading their networks, Canada will fall behind.

2. The CRTC has created an environment that does not support the Government of Canada’s public policy objectives, which include expanding and enhancing broadband Internet across Canada. A regulatory environment that does not enable and incentivize innovation and network investment will hurt Canadian families and businesses, whose need and appetite for higher speeds and greater bandwidth are constantly increasing. It will slow down expansion to Canadians who live in rural and remote areas and in Indigenous communities, who have limited access to the benefits of the digital world as it is. It will make it harder to deploy the 5G networks that will usher in the age of the “Internet of Things.” And it will make it more difficult for small businesses who need access to high-speed networks to compete in the global digital economy. Other countries will overtake us, and Canadians will lose.

3. These effects are real—not imaginary.

4. To Shaw, this petition is not about increasing profit margins or eliminating the CRTC’s wholesale broadband regime. It’s about the long-game and putting the tools back in the hands of the network builders so they can meet Canadians’ need for connectivity and support policy objectives the Decision ignores. It’s about re-balancing so that all Canadians and Canadian businesses have access to affordable, constantly improving broadband Internet—not a static lowest common denominator.

5. High quality broadband takes risky financial investment. It takes network and technological innovation. It takes efficient deployment. And it takes a regulatory regime that ensures that we don’t just keep up with other countries, but get ahead of the game.

6. Wholesale rate setting cannot be done through a myopic lens that doesn’t see the full picture. Rates must be set by balancing all of the policy objectives identified by the Government of Canada: affordability, competition, innovation, access to high quality service in all regions of Canada (including rural and remote areas), and investment.

7. The consequences are so significant for Canadians and our economic future, it is imperative that Cabinet take the necessary steps to ensure that changes are made, consistent with its policy objectives. Cabinet is uniquely positioned to issue an Order referring the decision back to the CRTC to consider all of the factors that will contribute to Canada’s success in the digital era. Doing nothing will see Canada fall behind, and that is not an option.

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1 Throughout, “Shaw” is used to refer, collectively, to Shaw Communications Inc. and Shaw Cablesystems G.P.
2 The Canadian Radio-television and Telecommunications Commission.
II. What's at Stake for Canadians

8. Today, the Internet is a complex, multi-dimensional interface of people, things, data, systems, and communities, with a transformational impact on how we organize ourselves as a society. Providing broadband Internet service is no longer just about consumers’ demands for faster speeds (although those continue), but keeping pace with the technology that has become crucial to our lives—to our culture, the environment, financial institutions, education, business, and governmental services. It’s also about connecting us as a country and paving the way for us to be leaders in the global digital economy.

9. Through the CRTC’s recent wholesale rate proceedings\(^3\) that culminated in Telecom Order CRTC 2019-288 (the “Decision”),\(^4\) the CRTC was supposed to set wholesale rates that would provide network builders\(^5\) with a reasonable opportunity to recover their costs and a reasonable return on their broadband network\(^6\) investments. Instead, the CRTC did the opposite and, in the process, distorted the broadband wholesale market—skewing it in favor of resellers (who don’t build networks)\(^7\) and skewing it in favor of Shaw’s main competitors in Western Canada (incumbent telephone companies). The Decision puts the very networks and technologies Canadian consumers and businesses rely upon at risk of stagnating and creates huge roadblocks with respect to expansion of those networks to rural and remote areas.

10. The pace of broadband evolution and need to continually up the “table stakes” for investment is staggering. The Decision stifles that investment and thereby diminishes all of the benefits it achieves, just some of which are highlighted below:

a. Bringing Broadband Internet to Rural and Remote Communities

11. The Government of Canada understands that all Canadians need access to reliable, high quality connectivity. Bringing Canadians together is more important now than ever, as is connecting them to the digital world. This is particularly so in rural and remote areas and Indigenous communities where Canadians need those services the most.

12. The issue is not unlike the one faced by the leaders of a young nation when they set about building a railroad to unite us as a country, connecting Canadians and enabling commerce from coast to coast. Reliable, high quality connectivity requires network building over long distances and challenging terrain. If viewed purely through business metrics, the business

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\(^3\) To determine the final rates for aggregated wholesale high-speed access (“HSA”) services.

\(^4\) Follow-up to Telecom Orders 2016-396 and 2016-448—Final rates for aggregated wholesale high-speed access services, dated August 15, 2019.

\(^5\) Companies like Shaw are referred to as “facilities-based service providers” because they are the network builders that invest in, and own, the physical infrastructure that provides high-speed Internet services to Internet end-users. In contrast, third party Internet service providers who are granted mandated access to facilities-based competitors’ networks and re-sell high-speed Internet services to end-users in the retail market are referred to herein as “resellers.”

\(^6\) “Broadband” means high-speed Internet access. Unless otherwise noted, references to “broadband networks” means wireline networks that deliver broadband Internet.

\(^7\) Some participants in the re-sale market may “build,” but such is extremely limited as compared to the contributions of facilities-based service providers and not part of the “re-sale” model itself. See: Ros, A., Duplantis, R., Dimitropoulos, D., and Cass, I, “Analysis of CRTC’s Final Rates for Aggregated Wholesale High-Speed Access Services: Impact on Broadband Network Investment and Innovation,” Brattle Group, (13 Nov 2019) [“Brattle Report, Nov 2019”], paras. 20-21 and accompanying Figures.
case is particularly difficult given the relatively sparse populations to be served at the destination and the significant cost to get there.

13. While wireless networks are part of the solution, wireline networks are still key. The issue is one of “transport” to and from rural and remote communities, which requires substantial investment in fibre “backbone”—the digital “super highways” that move data in and out of communities.

14. Network builders such as Shaw are the ones who have built these “super highways,” at extraordinary cost.

b. The “Internet of Things” and its Role in Climate Change and the Environment

15. Through 5G and the emerging “Internet of Things,” the Internet is gradually connecting billions of devices in ways that will materially promote the development of our economy, society, and culture. The expected impact will be transformative.

16. 5G technology substantially increases the demand for fully integrated (or “converged”) wireless and wireline networks. While 5G is a wireless deployment, it needs the support of robust, advanced wireline networks for “backhaul” (to transport data and to do so over longer distances). Wireline networks are the backbone for 5G and must have the capacity and technological capabilities to keep up. 5G also requires that wireline networks are in locations that permit wireless networks to connect to them.

17. As only a few examples of the new and transformative opportunities 5G brings, it is expected to be used for a host of data monitoring functions, from improving worker safety to enhancing ambulance care. That technology will have application wherever monitoring is done and can be expected to have a substantial impact for those assessing environmental data and the factors relevant to climate change, as already predicted for crop science.

18. 5G’s network of networks also has potential to help reduce the carbon footprint of new “smart cities,” in which innovations such as “smart” energy, transportation, manufacturing, vehicles, and traffic lights will exist. Imagine a world where, for example, there is no idling at traffic lights as cars never have to stop. And where “smart” factories use less energy and produce fewer emissions as machines connect to machines. These types of innovations and efficiencies require 5G networks working hand-in-hand with robust, advanced wireline networks.

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8 5G is the term used to describe 5th generation wireless networks.


10 Accenture 1, pp. 7-8.

c. 5G’s Positive Impact on the Economy

19. The adoption of 5G networks also has the potential to bring significant benefits to the Canadian economy. Predictions are that, over the next 6 years, the adoption of 5G will create more than 250,000 permanent Canadian jobs and up to $40 billion in our annual GDP as of 2026.\(^{12}\) The price tag—an estimated $26 billion in combined wireless and wireline spending.\(^{13}\)

d. Bringing Canadians and Canadian Businesses More Speed and More Data

20. The transformative world of 5G aside, Canadians are already doing more with the Internet than ever. They need more speed and more data to do so. Roughly every two years, available broadband download speeds have been doubling.\(^{14}\) About every three years, consumer consumption triples.\(^{15}\)

21. Canadian businesses compete domestically and internationally in the digital economy and need their broadband Internet to keep up. Canada wants to be a leader in the digital economy, not lag behind.

22. Broadband speeds of 1Gb (Gigabit) are a “game changer.”\(^{16}\) They are becoming the new norm for business operations and the necessary stakes for 5G networks.\(^{17}\) There is no time to pause, though, as the “next great leap in broadband”—10G—is already in the queue.\(^{18}\) 10G for broadband is being heralded as “faster, simpler, more reliable and more secure than anything we’ve seen so far.”\(^{19}\) Deployment of 10G technology can be expected to have significant positive job growth and GDP contributions for the country.

e. Shaw’s Contributions

23. Investment depends on regulatory certainty. Before the Decision, Shaw had been making the necessary investments to keep Canada moving forward and enable Canadians to fully

\(^{12}\) Accenture 1, p. 2.

\(^{13}\) Accenture 1, p. 3.


\(^{16}\) McKetta, I., “In-Depth Analysis of Changes in World Internet Performance Using the Speedtest Global Index,” (4 Sep 2019), www.speedtest.net/insights/blog/global-index-2019-internet-report. The author also notes that:

Unlike 5G, fiber connections have been rolling out since 2007, opening up the possibility of gigabit-speed fixed broadband. That said, it’s costly and time-intensive to lay miles and miles of fiber so progress has varied widely across the globe.

\(^{17}\) 10G is the term used to describe wireline broadband networks that can deliver up to 10Gb symmetrical speeds (i.e. upload and download speeds).


\(^{19}\) CableLabs 2.
participate in the digital era. The regulatory environment had supported the business case to do so. The Decision changes everything.

i. Shaw’s Networks

24. Shaw20 is a leading Canadian connectivity company, built on the foundation of providing facilities-based services. It builds, operates, and continues to develop and expand its wireline21 and wireless22 networks to provide Canadian consumers and businesses with world-class technologies and services across its service platforms.23

25. Shaw’s wireline network provides broadband Internet to consumers and businesses across Western Canada and Northern Ontario. Shaw’s wireless network is located in three provinces (B.C., Alberta, and Ontario) and provides mobile service to Freedom's customers across its network footprint.

26. Shaw’s wireline network is an extremely complex, multi-dimensional network of hybrid fibre-coaxial cable that traverses over all types of terrain and serves communities of varying sizes and densities. It connects locally, regionally, nationally, and internationally, with 1.4 million kilometers of fibre distributed across approximately 12,000 route kilometers throughout Canada and the US. The wireline network requires access to support structures (such as poles and conduits), depends upon highly technical, state of the art equipment and facilities for its operation, and the latest, continually evolving technologies called upon when Canadians ultimately connect to engage with each other or experience the world.

27. Over the past 7 years, Shaw has invested more than $20 billion to improve the quality and capacity of our wireline network and services, making our best experience available to 98% of homes and businesses across our footprint in Western Canada through innovative and affordable packages. As the largest cable-based provider in Western Canada, Shaw plays a critical role in expanding connectivity in the West.

28. Since 2016, Shaw has also invested in excess of $3.4 billion in our wireless network to deploy an LTE-Advanced network.24 Our wireless network investment includes substantial

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20 Shaw Communications Inc. is traded on the Toronto and New York stock exchanges and is included in the S&P/TSX 60 Index.
21 Shaw’s wireline network is comprised of: a) Shaw’s North American fibre backbone over two diverse routes (the Southern Route of approximately 7,000 route kilometers of fibre between Seattle and New York City (via Vancouver, Calgary, Regina, Winnipeg, Toronto, Chicago, and Buffalo) and the Northern Route of approximately 5,000 route kilometers between Prince George and Montreal (via Edmonton, Saskatoon, Winnipeg, Thunder Bay, Toronto, and Ottawa)) and other secured capacity routes (largely for redundancy); b) regional fibre optic and co-axial distribution networks; and c) local Shaw Go WiFi connectivity.
22 In 2016, Shaw acquired what is now known as Freedom Mobile and its wireless network. Shaw’s investments in Freedom’s wireless network are discussed at paras. 28 and 56-58.
23 Shaw’s Wireline division provides consumer and business services, including broadband Internet, WiFi, video, digital phone, and (for businesses) data. Shaw’s Wireless division provides wireless voice and LTE data.
24 Since Shaw’s acquisition of Freedom Mobile (formerly known as WIND) in 2016, Shaw has significantly enhanced Freedom’s network through the accelerated transition from 2G and 3G to 4G LTE, and later to LTE-Advanced, including our launch of Voice over LTE as well as extended range LTE. We have also constantly sought to improve our customer experience by expanding coverage to new areas, being the
spectrum acquisitions and network deployment in an ever expanding network footprint, providing an enhanced customer experience.

ii. **Shaw’s Advancement of the Government of Canada’s Policy Objectives**

**Increasing affordable broadband in local, rural, and remote communities**

29. In addition to direct connection, Shaw provides access to broadband Internet on its wireline network through Shaw Go WiFi, Canada’s most extensive service provider WiFi network. Shaw Go WiFi extends Shaw Internet customers' broadband experience beyond their homes to over 110,000 access points from B.C. to Ontario—at no additional charge. Customers simply connect through tablets and mobile devices and have the same experience as if at home. In addition, Shaw has partnered with over 100 municipalities to provide free WiFi to residents at municipal facilities.

30. Shaw is also proud to play a role in building new backbone fibre to bring superior connectivity to rural and remote Canadian communities and to stimulate local economies. Shaw typically funds those builds itself. To extend broadband’s reach to certain remote communities, we recently also partnered with both the Government of Canada and Government of British Columbia in their “Connect to Innovate” / “Connecting British Columbia” projects. Shaw has two such projects underway: fibre builds between Whistler and Cache Creek and between Dawson Creek and Prince George. Shaw has committed $15.9 million to those projects, in partnership with the Government of Canada and Government of British Columbia and their collective investment of more than $20 million in public resources. Those projects will provide access to high capacity fibre to improve connectivity to 16 underserved communities (6 of which are Indigenous) and 5 institutions. They have also stimulated partnerships between Shaw and local Indigenous groups.

31. As recognized by the Government of Canada when announcing those projects in the spring of 2018:

> Internet access serves as more than just a convenience: it is an essential means by which citizens, businesses, and institutions access information, offer services and create opportunities that could otherwise be out of reach.

…

These investments will help residents of rural and remote British Columbia communities connect with family and friends, do business online, participate in distance education and take advantage of the opportunities afforded by the digital age. The investments will also
help connect schools, hospitals, libraries and businesses to networks that are essential to their services.\textsuperscript{25}

32. In B.C. alone, Shaw provides access to its Internet 300 and 600 broadband speeds\textsuperscript{26} to over 100 communities with a population of less than 2,000. As part of Shaw’s “double down” program (discussed further below), rural communities have also seen their broadband Internet speeds double—at no additional cost.

**Innovating and Advancing New Technologies**

33. Shaw has been continually upgrading its wireline network to meet the challenges for more speed, more data, and emerging technologies (such as cables’ new 1Gb speeds, 5G networks, and pending 10G broadband). For example, during the past two years, Shaw:

(a) doubled our Internet speed offerings twice—from Internet 150 to Internet 300 and again, only a few months later, from Internet 300 to Internet 600, all at no additional charge;\textsuperscript{27}

(b) launched our fastest Internet tier (Gigabit) to our business customers, with download speed of up to 1 Gbps and upload speed of up to 125 Mbps;\textsuperscript{28}

(c) completed the activation of next generation cable access technology,\textsuperscript{29} powered by an advanced cable modem, which enables faster Internet speeds,\textsuperscript{30} supports more devices, and ensures a stronger in-home Internet connection;

(d) continued to optimize the capacity and efficiency of our wireline network to virtually eliminate network congestion (i.e. “traffic” problems) and give our customers ultra-fast and consistent Internet speeds, even during peak usage times; and

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\textsuperscript{26} Internet 300 provides download speeds of up to 300 Mbps and up to 20 Mbps for uploads; Internet 600 provides download speeds of up to 600Mbps and up to 15 Mbps for uploads.

\textsuperscript{27} Shaw Internet customers who were receiving Internet 150 were upgraded to Internet 300; those who were receiving Internet 300 were upgraded to Internet 600. See: Shaw Press Release, “Shaw Doubles Down with Faster Speeds Across Western Canada” (29 Nov 2018), \url{https://newsroom.shaw.ca/materialDetail.aspx?MaterialID=6442452175}.


\textsuperscript{29} Data over Cable Interface Specification version 3.1 (“DOCSIS 3.1”).

\textsuperscript{30} Such as Shaw’s Internet 600 service and 1 Gbps speed.
made significant enhancements to our wireless network, while also moving towards readiness for deployment of 5G31 and the full convergence of our wireline and wireless platforms.

34. Gigabit service is becoming widely available to consumers—in other countries.32 As of December, 2018, 93% of households served by cable broadband providers in the United States had gigabit broadband available to them.33 Shaw only offers it to its business customers.

35. When Shaw doubled its Internet speed offerings for the second time in calendar year 2018, Canada instantly climbed 9 places in the Speedtest Global Index—from 16th place in the world in November to 7th place in December, 2018.34

III. What the Decision Does

36. The Decision confiscates the tools network builders like Shaw need to continue doing what we’ve been doing—and want to continue doing in the future—to upgrade and expand the networks the Government’s policy objectives require. It guts the business case for that work and instead gives a windfall to those who don’t build—resellers.

37. The Decision results in what has conservatively been estimated could be upwards of $3.7 billion in combined reduced cash flow over the next 5 years for the group of cable-based network builders Shaw has joined with in this Petition. That represents 54% of what they had collectively planned for broadband capital expenditures over the same period.35

38. Shaw’s business model is fundamentally different than that of a typical reseller. Shaw owns and builds networks; resellers buy services enabled by those networks and then repackage and then re-sell them in competition with network builders like Shaw. Unlike the billions of dollars Shaw, alone, invests in our networks, resellers do not have their capital invested—or at risk.36

39. Resellers have proven that they have little to no interest or desire to improve wireline networks for Canadians. Despite gaining very substantial market share in the range of 16 to 19% in the profitable markets they choose to compete in,37 resellers have not made any material investments in networks in Canada. While cable-based network builders

32 CableLabs 1.
33 CableLabs 1.
35 Brattle Report, Nov 2019, paras. 41-42.
36 In broad terms, resellers incur expenditures to connect to the facilities-based competitors’ networks but do not incur capital expenditures associated with the building or upgrading network itself. Reseller investment in networks themselves is extremely small when compared to the investments of network builders. See: Brattle Report, Nov 2019, paras. 20-21 and accompanying Figures.
increased their investments in wireline plant and equipment by approximately 19% between 2013 and 2017, resellers decreased their investments by approximately 8%.38

40. Resellers don’t even perform their own installations or repairs: they rely on Shaw’s technicians or contractors to deliver those services for their customers.

41. The fundamental premise of a mandated wholesale market is that a balance has to be struck so that there is healthy competition (to the benefit of consumers) but that the price resellers pay does not undercut network builders’ right (and need) to recover the sunk cost of their substantial network investments or prevent them from earning a reasonable rate of return.

42. The wholesale cost to resellers cannot be set at rates that make it economical for them to offer retail prices that are so low that network builders cannot compete at that level without imperilling their investments and the work they do to advance the Government’s policy objectives.

43. Canada has had the best of both worlds: high investment levels and a robust competitive market. The re-sale regime that existed prior to the Decision allowed resellers to gain market share and allowed network builders to invest billions in their networks. Market forces were working—which is how it is supposed to be.39

44. Market-distorting wholesale price regulation that ignores the realities of network-based investment was not called for (nor is it ever). It is not a sustainable form of regulatory intervention as it will ultimately lead to a self-perpetuating negative loop of reduced investment and harm Canadians’ access to innovative and affordable products and services.

a. The Dramatic Rate Reductions and Elimination of Speed-Tiered Pricing

45. If the Decision is not changed, Shaw will immediately see drastic reductions in both types of rates resellers are to pay for aggregated high-speed access services from Shaw (“access” rates and “capacity” (i.e. usage) rates).40

(a) For the “access” portion of resellers’ rates—the rate reductions were up to -77% as compared to the interim rates in place for the past three years41 and up to -89% of Shaw’s costs-based rates:42

<table>
<thead>
<tr>
<th>Download Speed</th>
<th>Interim Access Rate</th>
<th>Shaw’s Cost-Based Access Rate</th>
<th>Final Access Rate</th>
<th>Reduction from Interim Access Rate</th>
<th>Reduction from Shaw’s Cost-Based Access Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 to 49 Mbps</td>
<td>$14.91</td>
<td>$19.64</td>
<td>$11.47</td>
<td>-23%</td>
<td>-42%</td>
</tr>
</tbody>
</table>

38 Brattle Report, Nov 2019, para. 21 and Figures 2-4, based on CRTC data. Growth of 19% included cable-based carriers and other facilities-based service providers but the former are the bulk of that group.
40 The CRTC wholesale regime consists of: (i) access rates, which is the fee charged per retail customer for monthly access; and (ii) capacity rates, which is the fee charged for every 100 Mbps of data.
41 Imposed pursuant to Telecom Order 2016-396 and related CRTC decisions and orders.
42 The rates supported by Shaw’s costs studies.
<table>
<thead>
<tr>
<th>Download speed</th>
<th>Interim Access Rate</th>
<th>Shaw’s Cost-Based Access Rate</th>
<th>Final Access Rate</th>
<th>Reduction from Interim Access Rate</th>
<th>Reduction from Shaw’s Cost-Based Access Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 to 99 Mbps</td>
<td>$20.52</td>
<td>$30.19</td>
<td>$11.47</td>
<td>-44%</td>
<td>-62%</td>
</tr>
<tr>
<td>100 to 129 Mbps</td>
<td>$28.17</td>
<td>$46.94</td>
<td>$11.47</td>
<td>-59%</td>
<td>-76%</td>
</tr>
<tr>
<td>130 to 250 Mbps</td>
<td>$41.36</td>
<td>$83.08</td>
<td>$11.47</td>
<td>-72%</td>
<td>-86%</td>
</tr>
<tr>
<td>251 to 500 Mbps</td>
<td>$50.84</td>
<td>$100.84</td>
<td>$11.47</td>
<td>-77%</td>
<td>-89%</td>
</tr>
</tbody>
</table>

(b) For the “capacity” based portion of resellers’ rates—the rate reductions were - 15% as compared to the interim rates and -38% as compared to Shaw’s cost-based rates:

<table>
<thead>
<tr>
<th>Interim Capacity Rate</th>
<th>Shaw’s Cost-Based Capacity Rate</th>
<th>Final Capacity Rate</th>
<th>Reduction from Interim Capacity Rate</th>
<th>Reduction from Shaw’s Cost-Based Capacity Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>$296.10</td>
<td>$405.22</td>
<td>$251.14</td>
<td>-15%</td>
<td>-38%</td>
</tr>
</tbody>
</table>

46. Moreover, as seen in the first table, the Decision established wholesale access rates as “flat rates,” meaning that resellers pay the same wholesale rate ($11.47) regardless of speed, which is the opposite of how Internet service is priced in the retail market.

47. If not changed, the rate reductions and flat access rates that the Decision prescribes will significantly reduce the amount Shaw can recover from resellers for aggregated HSA service and will negatively impact Shaw’s broadband wireline revenues and its ability to compete with resellers and other network builders (particularly telephone incumbents in Western Canada).

b. What the Dramatic Rate Reductions Mean

   i. Real, Immediate, and Enduring Impact

48. The impact of the Decision is real. Because of it, Shaw has already moderated our capital expenditure for both our wireline and wireless networks.43

49. During Shaw’s F2019 Q4 Analyst Call on October 25, 2019, Shaw’s CEO, Mr. Brad Shaw, commented generally on the impact of the Decision and the current environment of regulatory uncertainty as follows:

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43 This is in addition to Shaw’s moderation of wireless network spending given increased regulatory uncertainty created by other proceedings before the CRTC (the Mobile Virtual Network Operator (MVNO) proceedings referred to by Mr. Shaw, below).
Facilities-based competition, from Shaw and Freedom, is working, and will continue to work for Canada. As an industry we are all expanding and improving our networks. Consumers want more from their providers, not less. We can offer these services and introduce new ones because we have invested significantly in the breadth and quality of our networks on which these services so heavily rely.

The recent regulatory environment creates unnecessary uncertainty and has the potential to do more harm over the long-term. If companies no longer have the opportunity to earn an appropriate return, they will change their investment profile and therefore, innovation in services and technologies such as 5G, Internet of Things and the fundamentals of artificial intelligence will diminish, along with service levels that Canadians have been accustomed to. Canada requires strong facilities-based investment to compete on the global stage.

Since the announcements on the wireless MVNO hearings and the reduced TPIA rates, we have already altered our plans with respect to launching new, higher speed Internet tiers and additional wireless expansion beyond our current footprint. Throughout the regulatory process, we are hopeful that the government recognizes the critical role that facilities-based companies play in the ability to usher in new technologies and deliver better and faster services for Canadians. [emphasis added]

50. Shaw was one of the companies that retained an independent expert, the Brattle Group, to empirically assess the effect of the Decision on broadband network investment from an industry perspective. As reviewed in more detail in the Brattle Group’s Report, the rate reductions contemplated by the Decision will significantly and dramatically change the investment landscape in the industry, to the detriment of all Canadians:

…the Order [Decision] will significantly diminish the Cablecos’ incentive and ability to invest in broadband networks to the detriment of service, innovation and facilities-based competition.46

51. While the Cable Carriers comprised the bulk of the group that had the largest compound annual growth rate in telecommunications investment between 2013 and 2017 (18.9% compared to incumbent telephone companies at 4.4% and resellers at -8.2%), the Decision could strip us, collectively, of cash flow that Brattle conservatively estimates

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44 In the CRTC’s proceeding to review the regulatory framework applicable to mobile wireless services, which is currently underway, the Commission expressed its preliminary view that “it would be appropriate to mandate” Mobile Virtual Network Operator (MVNO) access. See: Telecom Notice of Consultation CRTC 2019-57, Review of mobile wireless services (13 Jan 2020), para. 39.
45 “Third Party Internet Access” rates, meaning the rates imposed by the Decision.
46 Brattle Report, Nov 2019, para. 11.
47 Brattle Report, Nov 2019, para. 21 and Figure 4, based on CRTC data.
could be upwards of $3.7 billion, which represents 54% of our collective planned broadband capital expenditures over the next 5 years. As a result, Brattle concludes:

This will decrease the incentive and ability for Cablecos to invest in their Canadian networks and make other non-broadband investments more attractive in comparison. This impact is likely to manifest itself in various ways, including through lower innovation, slower growth in expected performance [such as speed increases, network performance, and higher quality broadband services] and less investment in geographic expansion.

But those are only impacts of the first order. Brattle highlights that its analysis is conservative as there are additional effects that the scope of its assignment did not permit it to further explore and quantify.

The results from Brattle’s recent report are also consistent with an analysis it did for Shaw in connection with Shaw’s participation in the Competition Bureau’s “Competition in Broadband Services” market study in 2018/2019. Notably, Brattle concluded that:

- Empirical analysis shows that, if resale rates do not account for the full opportunity cost of the investment, promoting growth in services offered by resellers at the expense of network builders deters further investment by network builders such as Shaw in their networks;

- There were no significant market imperfections hindering the ability of resellers to compete for, and win, customers. The market had been functioning well; and

- Imposing unnecessary cost-based resale obligations on network builders will distort and bias technological competition, delay network builders’ broadband

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48 Brattle Report, Nov 2019, paras. 41-43. Even on the other non-status quo scenarios, Brattle still conservatively estimates results that are dramatic.
50 Brattle Report, Nov 2019, para. 44.
51 Brattle Report, Nov 2019, para. 42. The analysis does not account for such things as the impact of the lower capacity-based billing (“CBB”) rates; the effect of the retroactive payments; revenue losses beyond Internet services (i.e. to account for customer-switching where the customer had bundled services); and impacts beyond the 5-year period examined.
53 Brattle Report, Aug 2018, paras. 103, 118.
54 Brattle Report, Aug 2018, paras. 28, 120.
investment,\textsuperscript{56} and lower overall economic efficiency in Canadian broadband markets.\textsuperscript{57}

54. Regardless of the particulars of the impact of the Decision on any one of the individual Cable Carriers who bring this Petition, Brattle’s analysis clearly demonstrates that the Decision has a dramatic, negative, industry-wide impact. It neither enables or creates any incentive for those who were responsible for well over a third of investment in broadband networks (with what had been the fastest rate of growth in investment) in favor of resellers, who have contributed less than 1/2 of 1% to such investment and, in fact, are becoming increasingly dependent upon the investments made by cable carriers and are likely to provide even less technological competition.\textsuperscript{58}

55. There is no public policy benefit in taking what could be upwards of $3.7 billion out of the hands of network builders (in the next 5 years alone). That doesn’t enable or incentivize network builders to improve and expand their networks or to innovate to bring the latest technologies to Canadian consumers and small businesses. It also doesn’t create jobs or overall economic growth. The Decision imposes no obligation on resellers to invest either the funds they are to receive in retroactive payments or their future cost savings due to rate reductions.

\textit{ii. Widespread Impact}

56. In 2016, Shaw embarked on a series of fundamental changes, reinventing itself as a leading connectivity provider and committing to the promise of a much more dynamic wireless market in Canada, where all Canadians could gain access to affordable, innovative wireless services. During this period of extraordinary change, Shaw entered the wireless market by acquiring Wind Mobile (now Freedom). Since that acquisition, Shaw has spent several billions of dollars enhancing Freedom’s network, which has expanded throughout urban and rural Canada, including 19 new communities in the last 12 months. In support of our commitment, Shaw sold various business units while repositioning the entire organization and workforce through an industry-leading transformation of our business.

57. Shaw is delivering on its commitment of bringing wireless competition to Canadians. Following Shaw’s investments in Freedom’s network immediately after the acquisition, Freedom launched its Big Gig data plan (10Gb for $50/month) in late 2017, which offered significantly more data, at significantly lower prices, to Canadians. Since that time, Freedom has played a critical role in transforming the pricing of wireless services in Canada, including by driving the wide-spread offering of lower-priced, consumer-friendly unlimited data-plans.\textsuperscript{59}

58. All of this was only possible because of significant network investment. If Shaw had not invested in Freedom’s LTE- Advanced networks and in Shaw’s fibre backbone network in

\textsuperscript{56} Brattle Report, Aug 2018, paras. 103, 122-124.
\textsuperscript{57} Brattle Report, Aug 2018, paras. 122-124.
\textsuperscript{58} Brattle Report, Nov 2019, paras 20-22 and Figures 3-4, based on CRTC data.
\textsuperscript{59} For example, the average monthly price for a mobile service with unlimited voice, text messaging and 5Gb of data fell by as much as 35 per cent in 2018, from $78.36 in 2016 to $51.05. See: CMR 2019 – 2018 Communications Services Pricing in Canada, Infographic 2.1, Average reported monthly price by service in Canada.
support of it, the Big Gig plans that we believe transformed the market would never have been possible. All Canadians are the winners from our network investments.

59. The Decision raises serious concerns for us in relation to the CRTC’s overall approach to, and the apparent lack of value it places on, network-based ownership (for both wireline and wireless), and thus our new wireless investments of over $3.4 billion and Freedom’s role as a “disruptor” in the mobile market. Once investments in network infrastructure (wireless and wireline) are made, those investments have:

… the feature of being both irreversible and made under uncertainty. When a firm decides to make an investment in infrastructure that is irreversible, it effectively exercises a call option by foregoing the opportunity to invest at a later point when it would have more certain information. The [economic] literature demonstrates that failing to account for the option value of investments results in resale pricing below the dynamically efficient level [the level that accounts for future investment, R&D, and incentives for new product development as well as maximizing existing productive and allocative efficiency].

60. Additionally, given the growing wireless/wireline inter-platform competition, especially as we enter the era of 5G, the market distortion the Decision creates in the wireline broadband market (particularly the flat rate wholesale pricing model) will impact the wireless broadband market as well. The Decision is not just a little rate setting exercise for one aspect of the broadband market—its affects will be widespread, with consequences that were clearly not in the CRTC’s sights, although they should have been.

c. Distortions in the Retail Market from Wholesale Flat Rate Pricing

61. In addition to the loss of a key source of revenue for network development, flat rate wholesale pricing immediately and fundamentally distorts the dynamic of the retail Internet market.

62. Speed-tiered pricing is a cornerstone of the retail Internet market: higher speeds attract higher prices. Affordability is important, but Canadians don’t want less for less. The exponential demand for higher speeds and more data, even at higher price points, confirms that.

63. In establishing wholesale flat rate access pricing, the Decision gives resellers the privilege of pricing flexibility that is distinct from considerations of speed. They don’t pay more for higher speed services, so can choose to price higher speeds completely independent of any higher costs associated with providing higher speeds—a significant factor for network

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63 There is no direct correlation between the amount resellers pay and the speeds to which their customers subscribe. Access fees are flat and the amount of fees paid for usage (i.e. CBB) depends on customers’ usage patterns, not the speeds with which they upload and download.
builders such as Shaw. For network builders, an increase in speed means additional cost to upgrade our networks to support those speeds.

64. Resellers are thus positioned to price their higher speed retail services far differently than network builders while still recovering their artificially low input costs given the flat wholesale access rate. They benefit from using infrastructure at a cost far below what it would cost cable companies to build and maintain it with the necessary upgrades to remain competitive. That imbalances competition and negatively impacts future investment by network builders.  

**d. The Compounding Effect of Unequal Treatment between Cable Companies and Telephone Companies**

65. In addition to unnecessarily, and dramatically, skewing competition in favor of resellers, the Decision also fundamentally skews the competitive landscape between telephone companies and cable companies in favor of the former. While surely unintended, the Decision actually undermines competition in high-speed services in Western Canada.

66. In an earlier decision this year, the CRTC removed a speed cap that had limited resellers’ access to higher speeds on cable companies’ networks. The speed cap was to incentivize resellers to use the fibre networks of telephone companies. Removing the cap therefore opened up all of cable companies’ speeds to resale. As a side note, in removing the cap, the CRTC thereby also effectively removed any incentive for resellers to invest in “middle-mile” facilities in order to access high-speed internet services over telephone companies’ fibre networks, compounding resellers’ already reduced—and reducing—levels of investment.

67. As a result of the combination of removal of the speed cap and the CRTC’s later release of the Decision in issue, cable companies now have to offer dramatically reduced rates to resellers across their full suite of services.

68. Shaw’s principal broadband competitors in Western Canada—incumbent telephone companies—do not yet have to offer higher speed Internet services to resellers in the West. On the other hand, Shaw is required to offer all of our speeds to resellers. The Decision creates a significant disincentive to do so at higher speeds, where the losses are much greater due to the Decision’s flat rate pricing. Since the Decision, we have therefore altered our plans with respect to launching new, higher speed Internet tier services to our retail customers. As a result, Shaw’s telco competitors essentially enjoy a monopoly at the higher speeds. That also includes the ability to build out their high-speed networks, financed by market-based rates and enjoy a first-mover advantage.

69. The effect of the Decision, compounded by removal of the speed cap, has thus resulted in regulation, even if unintended, that is egregiously asymmetrical and leads to a

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64 Brattle Report, Nov. 2019, paras. 67-70.
66 Those services are referred to as “disaggregated” services and are not subject to the Decision. While the CRTC has mandated that disaggregated services also be made available to resellers, no final rates have yet been set. Interim rates are in place for Ontario and Quebec but rate setting proceedings in Western Canada are presently on hold until sometime in 2020/2021.
significant competitive disadvantage for Shaw. That translates into less choice for consumers in Western Canada, to their significant detriment.

70. All of this is also symptomatic of a regulatory regime that needs to be completely rebalanced. The distortive impact of the Decision on two previously well-functioning, competitive markets—that between resellers and network builders and that between network builders themselves—illustrates how the CRTC’s approach to wholesale regulation is out of balance, out of sequence, and has actually created harm.

IV. What the Decision Means for All of Us

71. When the builders don’t have the tools to build, the business case no longer exists to continue to invest in the manner they traditionally have. When that happens, Canadians lose.

72. The Decision impacts those who need broadband Internet the most—those living in the less populated and remote areas. Connection to those areas requires more investment, not less. Let’s not deepen the already acute digital divide between broadband Internet access for rural and urban Canadians. Our rural and Indigenous communities offer enormous potential that cannot be fully realized without further investment in broadband.

73. The Decision also leaves affordable broadband services hanging in the balance. Network investment needs to be continuous or technological change will render today’s levels of broadband service the “dial up” of the future. Canadians don’t want to pay less for less. Canadians, wherever they live and work, want reliable, high quality service that meets their ever-increasing desire—and need—for speed and technological innovation that is also affordable.

74. Connectivity and the infrastructure that permits it are pre-requisites for Canada’s participation and success in the digital economy. It is hard enough to build networks and keep pace with technological advancements in a country as large as ours. Now is the time to remove regulatory roadblocks to building those networks, particularly given the focus of policy makers in other countries.

75. For example, in the United States, the Federal Communications Commission (“FCC”) established a Broadband Deployment Advisory Committee (“BDAC”) with the mission of advising it on how to remove the barriers to network investment and thereby accelerate the deployment of high-speed internet access. BDAC has been working toward that goal for almost 3 years.

76. The European Commission and European Parliament have also shifted policy, pulling back from aggressive regulation in support of the resale regime, in recognition of the deterrent effect of resale on investment in broadband networks.

77. Canadian regulation is out of step with those approaches and that has significant consequences. Canada’s leap up the global speed ladder (9 places in one month, all because Shaw doubled its speed offering (which it did without increasing customer rates)) provides a stark example of how Canada’s global position can quickly go up—and continue to do so—when network investment is encouraged.

78. Cabinet needs to guide the CRTC back to first principles and the broader context of all relevant policy objectives for Canada’s broadband future. The wholesale framework as it currently exists leads to an out of step, out of sequence approach to wholesale high-speed access regulation—one that sees wholesale rates for some network builders set (and slashed) before rate setting proceedings have even started for others, that removes incentives that would encourage those who do not invest in networks to do so, that dramatically decreases the financial capability and incentive for those who do invest in networks to continue to do so, and that so skews competition that Canadians actually lose. The solution is reconsideration of the CRTC’s wholesale high-speed access framework and the Decision with it.

V. Conclusion

79. If the Decision is not changed, Canadians will bear the brunt of its effects. Families will be stuck with networks that are more congested; small business owners will struggle to compete with networks that are inferior to those available to their foreign competitors; and fewer students, emerging businesses and public officials in rural and Indigenous communities will be connected, which will have a profound impact on the delivery of education, health and other services in those areas.

80. Shaw is committed to investing so that even more Canadians benefit from access to affordable, high-quality, innovative broadband Internet and the transformative applications of 5G and the “Internet of Things.” We are committed to investing so Canadian small businesses have access to the high-speed networks they need to compete in the digital economy. And we are committed to investing so that Canada can continue to climb the global speed ladders and advance its goal of being a global technology leader.

81. To do that, Shaw needs a regulatory environment that enables and incentivizes innovation and network investment.

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69 As set out in the Canadian Telecommunications Policy under the Telecommunications Act, SC 1993, c 38, s 7 and applicable Orders pursuant to section 8.

70 Namely, the disaggregated rate setting proceedings referred to in footnote 66, above.

71 Namely, removal of the 100 Mbps speed cap and its elimination of at least one potential investment obligation for resellers.

72 When establishing the wholesale access framework, the CRTC recognized that the framework warranted review sometime after 5 years (i.e. sometime after July 22, 2020, its five year anniversary). Review of wholesale wireline services and associated policies, Telecom Regulatory Policy CRTC 2015-326 https://crtc.gc.ca/eng/archive/2015/2015-326.htm, para. 255.
82. Building connectivity is our era’s version of building the railroad that brought us together as a country. It is integral to our everyday lives. It shapes how we engage in our communities, operate our businesses, and interface with our governments, at all levels. A failure to engage broadband connectivity is a failure to bring Canada together when it needs it the most.

83. Connectivity requires billions of dollars of private investment. If we are to achieve the Government’s policy objectives and meet Canadians’ needs, we need Cabinet to refocus the CRTC on all of the objectives necessary to balance the wholesale regime so it positions Canada for success in the digital era. The stakes are high. They are real. And doing nothing is not an option.
APPENDIX F

to the Petition to the Governor in Council
pursuant to Section 12 of the Telecommunications Act
Opinion de Vidéotron ltée sur l’impact de l’Ordonnance de télécom CRTC 2019-288

Le 13 novembre 2019
I. Introduction

1. Le présent document est soumis à la gouverneure en conseil en appui à la demande écrite déposée le 13 novembre 2019 par Bragg Communications Incorporated (« Eastlink »), Cogeco Communications Inc. (« Cogeco »), Rogers Communications Canada Inc. (« Rogers »), Shaw Cablesystems GP (« Shaw ») and Vidéotron Itée (« Vidéotron ») (collectivement, les « Câblodistributeurs ») concernant l’Ordonnance de télécom CRTC 2019-288 (l’« Ordonnance du CRTC »).

2. Vous trouverez dans ce document un bref exposé du rôle de premier plan joué par Vidéotron dans le développement du marché des services à large bande au Québec, un résumé des principaux aspects abordés dans l’Ordonnance du CRTC ainsi qu’un aperçu des divers impacts négatifs de cette ordonnance non seulement sur la capacité de Vidéotron à continuer d’investir dans ce domaine, mais également sur l’ensemble de la population québécoise.

II. Vidéotron et le marché des services à large bande au Québec

3. Il est essentiel pour assurer la prospérité économique future et le développement social d’un pays de pouvoir offrir des services de télécommunications modernes, à la fine pointe de la technologie. Le Canada est un chef de file dans le domaine des télécommunications et ce, à l’échelle mondiale, par ses innovations technologiques et le déploiement de ses réseaux. Des infrastructures numériques de qualité s’avèrent donc essentielles pour maintenir notre compétitivité et pour répondre adéquatement aux besoins croissants des Canadiens qui utilisent quotidiennement ces services.
4. Vidéotron est fière d’avoir joué dès le début de l’ère numérique un rôle de premier plan dans la construction et l’expansion de ces infrastructures au Québec.

5. En 1996, Vidéotron lançait son premier service d’accès internet à large bande, dont la vitesse de téléchargement était limitée à 3 ou 4 Mbps. Bien que la base de clients pour ce service ait été nettement inférieure à celle du service traditionnel de télévision, Vidéotron s’est engagée à faire des investissements considérables dans ce domaine. En effet, Vidéotron a rapidement compris que l’accès à un service à large bande fiable et performant allait devenir un besoin essentiel pour ses clients.


7. Dès lors, motivé par la volonté de satisfaire les besoins évolutifs de sa clientèle en termes de vitesse et de qualité, Vidéotron a continué d’évoluer et de développer ses services à large bande et ce, malgré un contexte de concurrence féroce entre des plateformes technologiques distinctes (de câblodistribution et de téléphonie traditionnelle) où les fournisseurs possèdent leurs propres installations et tentent constamment de se dépasser.

8. Malgré qu’il n’y ait aucune garantie de retour sur ses investissements, Vidéotron a tout de même investi des montants colossaux dans les infrastructures. À titre d’exemple, entre les années 2014 et 2018, Vidéotron a investi un total de 1,4G$ dans son réseau filaire. Ces investissements étaient nécessaires pour faire face à la croissance fulgurante de trafic par utilisateur (de l’ordre de 35% par année.
pendant cette période), mais également pour accommoder une autre génération de technologie – le DOCSIS® 3.1. À ce jour, le réseau filaire de Vidéotron couvre 2,9 millions de foyers et d’emplacements commerciaux à travers le Québec et dans quelques communautés de l’est de l’Ontario.

9. Parallèlement, d’autres fournisseurs font des investissements dans leurs réseaux. Bell continue de déployer son réseau de fibre à la maison (« FTTH ») à travers son territoire de service, livrant ainsi une concurrence active dans le marché de l’internet haute vitesse de détail. Selon les dernières données de Bell, en date du 30 septembre 2019, ce réseau rejoint 5 millions de foyers et d'emplacements commerciaux¹, dont une partie importante se situe au Québec.

III. L’Ordonnance du CRTC

10. Tel que nous venons de le constater, les entreprises dotées d'installations comme Vidéotron et Bell investissent massivement dans leurs réseaux afin de pouvoir offrir aux consommateurs des services de télécommunication de qualité, toujours adaptés à leurs besoins variés et croissants.

11. Malgré cette concurrence dynamique entre plateformes technologiques, le CRTC oblige depuis de nombreuses années les entreprises dotées d'installations à fournir l'accès à leur réseau filaire à des tiers fournisseurs de services internet, appelés communément des « revendeurs ». De manière générale, ces revendeurs ne possèdent pas leurs propres installations et c’est ce qui les différencie principalement des entreprises dotées d'installations. Les revendeurs livrent concurrence à ces dernières en revendant aux consommateurs à des prix de détail l'accès internet qu'ils acquièrent de ces entreprises à des tarifs de gros.

¹ Bell, Rapport aux actionnaires du troisième trimestre de 2019, section 3.2.
12. Le CRTC a décidé de réglementer ces tarifs de gros afin de permettre l’introduction d’un plus vaste choix dans le marché au détail. Le 31 mars 2016, le CRTC a conclu que les tarifs alors en vigueur, qui avaient été définitifs jusqu’à cette date, allaient désormais s’appliquer de façon provisoire et que de nouvelles études de coûts devaient être déposées pour déterminer des tarifs justes et raisonnables\(^2\). Le 6 octobre 2016, le CRTC a rejeté les tarifs des services de gros proposés par les entreprises de câblodistribution pour imposer de nouveaux tarifs provisoires substantiellement inférieurs aux précédents\(^3\).

13. Enfin, après plus de trois ans d’étude, le CRTC a publié les tarifs définitifs pour les services de gros le 15 août 2019. Cette Ordonnance du CRTC impose de nouvelles réductions substantielles des tarifs qui vont bien au-delà de celles imposées en octobre 2016. De plus, pour la première fois, le CRTC impose un taux fixe (flat rate) pour les tarifs d’accès de gros par utilisateur final et ce, peu importe la vitesse, en plus d’ordonner une application rétroactive de ces nouveaux tarifs jusqu’au 31 mars 2016. Le tableau 1 ci-dessous présente l’évolution des tarifs pour les services de gros de Vidéotron de 2016 à aujourd’hui :

\(^2\) Décision de télécom CRTC 2016-117.
\(^3\) Ordonnance de télécom CRTC 2016-396.
14. Cette Ordonnance du CRTC renversante et contraire à tout ce qui existait auparavant est rendue dans un contexte où les revendeurs ont fait des gains importants dans le marché des services internet haute vitesse de gros. En effet, les fournisseurs de services internet indépendants\(^4\) avaient 1,663 millions d'abonnés en 2017, comparé à 1,074 millions d'abonnés en 2013\(^5\). Cette croissance soutenue a ainsi permis à certains revendeurs de devenir des entreprises de taille importante, avec des dizaines de milliers d'utilisateurs finals. À titre d'exemple, Vidéotron compte actuellement 34 revendeurs opérant sur son réseau, faisant augmenter le nombre d'utilisateurs finals de gros de 17 000 au 31 mars 2012 à 211 000 au 30 septembre 2019.

15. Le graphique 1 ci-dessous présente l’évolution du nombre d'utilisateurs finals des services de gros sur le réseau de Vidéotron depuis 2012 :

\(^4\) Un regroupement de fournisseurs composé principalement de revendeurs.


IV. L’impact de l’Ordonnance du CRTC sur Vidéotron

17. Dans ce même rapport publié par le Bureau, celui-ci souligne à quel point l’établissement des tarifs de gros est un exercice périlleux. Plus précisément, le Bureau reconnaît que l’implantation d’un régime d’accès au marché de gros peut potentiellement avoir des effets négatifs sur la volonté des entreprises dotées d’installations de poursuivre leurs investissements dans les infrastructures et « à cet égard, le Bureau souligne l’importance d’établir des taux appropriés d’accès

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au marché du gros pour ne pas miner cette volonté d’investir tout en s’assurant que les concurrents de services de gros maintiennent leur discipline concurrentielle sur le marché »

18. Avant d’en arriver à sa décision tarifaire du 15 août dernier, le CRTC a dû régler des différends entre les fournisseurs sous-jacents et les revendeurs sur une longue liste de présomptions et de paramètres économiques, financiers et d’ingénierie qui se trouvent dans les études de coûts déposées par les câblodistributeurs. Or, dans tous les cas, sans exception, le CRTC a tranché du côté des revendeurs et de leurs représentants. Le résultat est un modèle de coûts qui s’éloigne nettement de la réalité des réseaux déployés par des entreprises telles que Vidéotron.

19. Pour ne donner qu’un exemple, le réseau à large bande de Vidéotron contenait presque 9000 groupes de service en date de début de l’étude de coûts déposée au CRTC en appui aux tarifs de gros de Vidéotron, soit le 1er avril 2016. Ce chiffre devait augmenter à 15 000 groupes de service en date de fin de la période d’étude de cinq ans, soit le 31 mars 2021. Or, en forçant Vidéotron à adopter dans son étude de coûts un facteur d’utilisation pour ses groupes de service qui est trois fois plus élevé que le facteur d’utilisation réel observé dans son réseau, le CRTC ne lui permet de récupérer que le coût de 3000 groupes de service en date du 1er avril 2016 (et de 5000 groupes de service en date du 31 mars 2021). En d’autres mots, les deux tiers des investissements substantiels effectués par Vidéotron en nœuds optiques doivent être cédés à ses revendeurs et ce, sans aucune compensation.

8 Un groupe de service est une collection de nœuds optiques. Un nœud optique est un équipement clé dans la transmission des données à un petit regroupement de maisons ou d’entreprises.
9 Un facteur d’utilisation est une mesure de l’intensité avec laquelle un équipement est utilisé. Dans le domaine de l’accès internet, et surtout dans le domaine de l’accès internet par réseaux partagés, des facteurs d’utilisation bien en-dessous de 100% sont maintenus pour bien gérer les fluctuations parfois dramatiques de trafic et pour bien accommoder la croissance fulgurante de trafic prévue.
20. L’impact cumulatif de toutes ces distorsions en matière de présomptions et de paramètres est une grille tarifaire imposée par le CRTC qui est totalement déséquilibrée et qui ne tient pas compte des coûts réels de construction d’un réseau DOCSIS® moderne et performant. Tel que présenté dans le tableau 1 ci-dessus, la réduction tarifaire imposée à Vidéotron depuis 2016 atteint 82,5%. Une telle réduction ne peut pas être imposée sans impacter directement la capacité de Vidéotron à continuer d’investir dans son réseau.

21. Encore une fois, l’aspect le plus insensé et le plus dommageable de cette distorsion est l’imposition d’un taux fixe (flat rate) pour les tarifs d’accès de gros par utilisateur final et ce, peu importe la vitesse. En imposant une telle structure tarifaire, le CRTC ne comprend évidemment pas que les investissements nécessaires pour bâtir un réseau capable de supporter de très grandes vitesses (p.ex., de 1 Gbps ou plus) sont nettement plus élevés que ceux nécessaires pour bâtir un réseau capable de supporter des vitesses moindres (p.ex., de 30 ou de 60 Mbps). Ces investissements additionnels liés aux services de très grandes vitesses sont substantiels et doivent être encourus peu importe le trafic généré ultimement par les abonnés.

22. En ce qui concerne la décision du CRTC d’appliquer rétroactivement ces nouveaux tarifs, cela aurait comme conséquence que les câblodistributeurs devront verser aux revendeurs une somme de plus de 225M$ en remboursements pour la période de 2016 à 2019. Cette Ordonnance du CRTC vient donc imposer un fardeau monétaire additionnel sur les entreprises dotées d’installations, ce qui nuirait encore plus à leur capacité d’investir. Qui plus est, les revendeurs n’auraient absolument aucune obligation de remettre ces sommes aux consommateurs ni de les investir dans de nouvelles installations.

23. À la lumière de ce qui précède, Vidéotron a dû revoir ses politiques et ajuster ses activités afin de minimiser les impacts négatifs découlant de l’Ordonnance du CRTC du 15 août 2019. En effet, en date de l’Ordonnance du CRTC, la vitesse
d’accès la plus élevée offerte par Vidéotron était de 940 Mbps en téléchargement et de 50 Mbps en téléchargement (le « service Giga »). Avec la nouvelle grille tarifaire à taux fixe imposée par le CRTC, les investissements nécessaires pour supporter cette vitesse ne sont plus justifiables. Par conséquent, malgré tous ses efforts pour offrir aux consommateurs québécois des services de télécommunications des plus innovants, Vidéotron s’est vu contrainte de retirer son service Giga du marché. Ce retrait est effectif depuis le 11 octobre 2019 pour les clients de détail de Vidéotron et sera effectif le 22 décembre 2019 pour les clients de gros.

24. Par ailleurs, l’impact de l’Ordonnance du CRTC sur Vidéotron n’est pas limité au retrait du service Giga. L’effet combiné des réductions de revenus de gros et des distorsions prévues dans le marché de détail est tellement important que Vidéotron a été contrainte de réévaluer ses critères d’investissement dans son réseau, notamment en ce qui concerne les expansions de capacité et les modernisations. Ces critères ont maintenant été resserrés. Par conséquent, la vitesse à laquelle Vidéotron déploiera les plus récentes innovations à travers son réseau sera nécessairement moindre.

25. Enfin, cette baisse des investissements ainsi que ce ralentissement des expansions du réseau auront certainement un impact sur la main d’œuvre initialement requise et affectée à ces projets. En effet, si le nombre de projets diminue, il sera difficile pour Vidéotron de maintenir le nombre d’ingénieurs et de techniciens qui seraient autrement requis. Ce sont des emplois de qualité, bien rémunérés, et ni Vidéotron ni ses employés n’ont intérêt à les voir partir.
V. Conclusion

26. Vidéotron a toujours joué et continuera de jouer un rôle de premier plan dans le développement des services à large bande au Québec. Ces services sont essentiels à l'épanouissement économique, social et culturel de nos concitoyens, et c'est avec une grande fierté que nous leur proposons des services de qualité, à la fine pointe de la technologie.

27. L'Ordonnance du CRTC du 15 août 2019 vient cependant freiner la capacité de Vidéotron à investir et à développer son réseau à large bande. En imposant des tarifs de gros dérisoires qui ne reflètent aucunement les coûts réels de déploiement des réseaux, ainsi qu'une structure tarifaire qui risque de déformer de manière potentiellement irrémédiable les prix offerts sur le marché de détail, le CRTC force des entreprises responsables à réévaluer leurs plans pour ce marché. Dans le cas de Vidéotron, nous avons été dans l'obligation de retirer notre vitesse d'accès la plus rapide et de resserrer nos critères d'investissement dans notre réseau.

28. C'est avec beaucoup de réticence que Vidéotron se voit contrainte de prendre des décisions qui sont contraires à ses ambitions. Nous espérons que la gouverneure en conseil examinera la présente demande avec attention et saura prendre les décisions nécessaires afin de rétablir un équilibre sain entre tous les acteurs du marché des services à large bande.